

Travel Sheet

Authorized Inspector to be given travel sheet prior to construction so that he can indicate hold points and Inspection Points.

"A"-Hold Point, "I"- Inspection Point, "R"-Revision, "W"- Witness Point

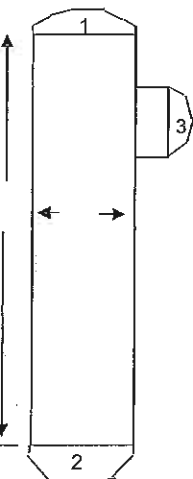
Hold Points established - Sign & Date

[Signature] Oct 20/11
(Authorized Inspector)

Vessel Serial # **12340** DWG # **V01-381-R1** (A) # **612508**

Vessel Title: **16" 3 Phase Separator** CRN # **P7217.231**

ITEM	COMMENTS	AUTH Insp., Hold Rev., Witness POINTS	DATE FUNCTION COMPLETE & INSPECTORS INITIALS	
			QC INSPECTOR	AUTHORIZED INSPECTOR
APPROVED DRAWING		X	Oct 17, 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
CALCULATIONS ON FILE		X	Oct 17, 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
MATERIAL CHECKED AGAINST DRAWING, MATERIAL LIST			Oct 17, 2011 <i>[Signature]</i>	
MTR'S CHECKED		X	Oct 17, 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
VESSEL LAYOUT			Oct 19, 2011 <i>[Signature]</i>	
NOZZLES	ORIENTATION		Oct 17, 2011 <i>[Signature]</i>	
& FITTINGS	RATINGS	X	Oct 17, 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
	NOZZLES&FITTINGS		Oct 19, 2011 <i>[Signature]</i>	
FIT				
UP	SHELL & HEAD			
INTERNALS (tray, baffles, etc)			Oct 20, 2011 <i>[Signature]</i>	
INTERNAL INSPECTION		H	Oct 20, 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 20/11
MATERIAL INSPECTION REPORT		X	Oct 20, 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
WELD SIZES		X	OCT 25 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
WELDERS I.D.			OCT 25 2011 <i>[Signature]</i>	
EXTERNAL AFTER COMPLETION OF ALL WELDING		X	OCT 25 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
INTERNAL ON TYPE 1 JOINTS			OCT 25 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
RADIOGRAPHS		X	OCT 26 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
OTHER N.D.E.				
IMPACT TESTS				
POST WELD HEAT TREATMENT	YES: NO: <i>[Signature]</i>			
EXTERNAL BEFORE PWHT				
PWHT CHART CHECKED				
NAMEPLATE		X	OCT 27 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
HYDROSTATIC TEST		H	OCT 27 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
DATA REPORT		X	OCT 27 2011 <i>[Signature]</i>	<i>[Signature]</i> OCT 27 2011
NONCONFORMANCES				



		SPECIFICATIONS		HEAT NUMBER	VERIFIED THICKNESS
SHELL	C1	SA-106-B		6304294 <i>[Signature]</i>	21.44mm
	1	SA-516-70		JK566052-A084057-2 <i>[Signature]</i>	20.63mm.
	2	SA-516-70		351658-35146 <i>[Signature]</i>	20.63mm.
HEADS	3				
	1				
	2				
	3				
REPADS	4				
		SPECIFICATIONS		SIZE	SCHEDULE
NOZZLES		SA-106-B		2"	Sch. 160
FITTINGS		SA-105		1/2", 3/4", 1", 2"	CL6000 cplg.
TUBES					

CONTRACT No.: 2006BGEL01		包头钢铁 (集团) 有限责任公司 BAOTOU IRON AND STEEL (GROUP) CO., LTD. Hexi Industrial Zone, Kun Distract, Baotou, Inner Mongolia, China										CERTIFICATE NO.: BSC001/2006																																																																																																																																																																																					
SHIPPER: Baotou Steel International Economic and Trading Co., Ltd.		无缝钢管质量证明书 QUALITY AND TEST CERTIFICATE ORIGINAL 16" X 0.844"												TOTAL QUANTITY: 482.722MT																																																																																																																																																																																			
PURCHASER: Eldon Development Ltd.(LAI WU GROUP) 42/F., Office Tower, Convention Plaza, 1 Harbour Road, Wanchai, Hong Kong		SHIPPING MARKS: LW WSC COMMODITY: CARBON SEAMLESS PIPE SPEC.: ASTM A106B/ASME SA 106B SIZE: OD 16" X 0.844" WALL THICKNESS X 7.5FT OD 16" X 0.844" WALL THICKNESS X LESS THAN 7.5FT HEAT NO.: BUNDLE NO.: BUNDLE WEIGHT: MADE IN CHINA												PACKING: Binding together three pieces per bundle																																																																																																																																																																																			
DESCRIPTION OF GOODS: CARBON SEAMLESS PIPE UNDER CONTRACT NO. 2006BGEL01 (1) 16" O.D. X 0.844" W.T. X 7.5FT (2) 16" O.D. X 0.844" W.T. X LESS THAN 7.5FT		<table border="1"> <thead> <tr> <th rowspan="2">Heat No.</th> <th colspan="2">Specification</th> <th colspan="2">Quantity</th> <th colspan="10">Chemical Compositions(%)</th> <th colspan="4">Mechanical Properties</th> </tr> <tr> <th>O.D.(in.)</th> <th>W.T.(in.)</th> <th>Meters</th> <th>Tons</th> <th>C</th> <th>MN</th> <th>S</th> <th>P</th> <th>SI</th> <th>CR</th> <th>CU</th> <th>MO</th> <th>NI</th> <th>V</th> <th>TS (Mpa)</th> <th>YS (Mpa)</th> <th>EL (%)</th> </tr> </thead> <tbody> <tr> <td>6204801</td> <td>16</td> <td>0.844</td> <td>225.06</td> <td>45.806</td> <td>0.200</td> <td>0.550</td> <td>0.016</td> <td>0.011</td> <td>0.270</td> <td>0.036</td> <td>0.008</td> <td>0.005</td> <td>0.008</td> <td>0.005</td> <td>480</td> <td>240</td> <td>33</td> </tr> <tr> <td>6104585</td> <td>16</td> <td>0.844</td> <td>293.31</td> <td>59.697</td> <td>0.180</td> <td>0.530</td> <td>0.015</td> <td>0.019</td> <td>0.270</td> <td>0.019</td> <td>0.008</td> <td>0.005</td> <td>0.008</td> <td>0.005</td> <td>515</td> <td>325</td> <td>28</td> </tr> <tr> <td>6601454</td> <td>16</td> <td>0.844</td> <td>355.3</td> <td>72.314</td> <td>0.190</td> <td>0.540</td> <td>0.007</td> <td>0.012</td> <td>0.260</td> <td>0.018</td> <td>0.008</td> <td>0.005</td> <td>0.009</td> <td>0.005</td> <td>505</td> <td>300</td> <td>27.5</td> </tr> <tr> <td>6704635</td> <td>16</td> <td>0.844</td> <td>446.73</td> <td>90.923</td> <td>0.230</td> <td>0.500</td> <td>0.007</td> <td>0.017</td> <td>0.240</td> <td>0.015</td> <td>0.005</td> <td>0.005</td> <td>0.009</td> <td>0.005</td> <td>510</td> <td>340</td> <td>28</td> </tr> <tr> <td>6304294</td> <td>16</td> <td>0.844</td> <td>296.23</td> <td>60.292</td> <td>0.230</td> <td>0.560</td> <td>0.004</td> <td>0.016</td> <td>0.300</td> <td>0.022</td> <td>0.010</td> <td>0.005</td> <td>0.009</td> <td>0.005</td> <td>510</td> <td>325</td> <td>27.5</td> </tr> <tr> <td>6704637</td> <td>16</td> <td>0.844</td> <td>377.88</td> <td>76.910</td> <td>0.210</td> <td>0.520</td> <td>0.006</td> <td>0.019</td> <td>0.300</td> <td>0.010</td> <td>0.005</td> <td>0.005</td> <td>0.009</td> <td>0.005</td> <td>510</td> <td>340</td> <td>28</td> </tr> <tr> <td>6304295</td> <td>16</td> <td>0.844</td> <td>377.24</td> <td>76.780</td> <td>0.180</td> <td>0.530</td> <td>0.009</td> <td>0.014</td> <td>0.260</td> <td>0.024</td> <td>0.009</td> <td>0.005</td> <td>0.016</td> <td>0.005</td> <td>480</td> <td>260</td> <td>30.5</td> </tr> <tr> <td></td> <td></td> <td></td> <td>2371.75</td> <td>482.722</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>												Heat No.	Specification		Quantity		Chemical Compositions(%)										Mechanical Properties				O.D.(in.)	W.T.(in.)	Meters	Tons	C	MN	S	P	SI	CR	CU	MO	NI	V	TS (Mpa)	YS (Mpa)	EL (%)	6204801	16	0.844	225.06	45.806	0.200	0.550	0.016	0.011	0.270	0.036	0.008	0.005	0.008	0.005	480	240	33	6104585	16	0.844	293.31	59.697	0.180	0.530	0.015	0.019	0.270	0.019	0.008	0.005	0.008	0.005	515	325	28	6601454	16	0.844	355.3	72.314	0.190	0.540	0.007	0.012	0.260	0.018	0.008	0.005	0.009	0.005	505	300	27.5	6704635	16	0.844	446.73	90.923	0.230	0.500	0.007	0.017	0.240	0.015	0.005	0.005	0.009	0.005	510	340	28	6304294	16	0.844	296.23	60.292	0.230	0.560	0.004	0.016	0.300	0.022	0.010	0.005	0.009	0.005	510	325	27.5	6704637	16	0.844	377.88	76.910	0.210	0.520	0.006	0.019	0.300	0.010	0.005	0.005	0.009	0.005	510	340	28	6304295	16	0.844	377.24	76.780	0.180	0.530	0.009	0.014	0.260	0.024	0.009	0.005	0.016	0.005	480	260	30.5				2371.75	482.722													
Heat No.	Specification		Quantity		Chemical Compositions(%)										Mechanical Properties																																																																																																																																																																																		
	O.D.(in.)	W.T.(in.)	Meters	Tons	C	MN	S	P	SI	CR	CU	MO	NI	V	TS (Mpa)	YS (Mpa)	EL (%)																																																																																																																																																																																
6204801	16	0.844	225.06	45.806	0.200	0.550	0.016	0.011	0.270	0.036	0.008	0.005	0.008	0.005	480	240	33																																																																																																																																																																																
6104585	16	0.844	293.31	59.697	0.180	0.530	0.015	0.019	0.270	0.019	0.008	0.005	0.008	0.005	515	325	28																																																																																																																																																																																
6601454	16	0.844	355.3	72.314	0.190	0.540	0.007	0.012	0.260	0.018	0.008	0.005	0.009	0.005	505	300	27.5																																																																																																																																																																																
6704635	16	0.844	446.73	90.923	0.230	0.500	0.007	0.017	0.240	0.015	0.005	0.005	0.009	0.005	510	340	28																																																																																																																																																																																
6304294	16	0.844	296.23	60.292	0.230	0.560	0.004	0.016	0.300	0.022	0.010	0.005	0.009	0.005	510	325	27.5																																																																																																																																																																																
6704637	16	0.844	377.88	76.910	0.210	0.520	0.006	0.019	0.300	0.010	0.005	0.005	0.009	0.005	510	340	28																																																																																																																																																																																
6304295	16	0.844	377.24	76.780	0.180	0.530	0.009	0.014	0.260	0.024	0.009	0.005	0.016	0.005	480	260	30.5																																																																																																																																																																																
			2371.75	482.722																																																																																																																																																																																													
Dimension Check OK		Surface Quality OK		Hydrostatic Test 5.8(Mpa) OK		Flattening Test OK		Bending Test OK		Rolling process Hot rolling		Eddy Current Test OK		Conclusion: above mentioned materials have been made in accordance with ASTM A106 B-2004 Inspector: [Signature] Date: Sept. 1, 2006 质检员: [Signature] 日期: 2006.9.1																																																																																																																																																																																			

NOV 22 2006



edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

5545-89 Street Edmonton, Alberta Canada T6E 5W9

www.edmontonexchanger.com

tel 780.468.6722 • QC fax 780.466.4668 • sales fax 780.466.5155

Customer: RJV GASFIELD LTD.

PO 2773

Work Order C91469 Date 2011/10/14 ColCo 28015

Page 1 of 2

Item#	Description	Qty	Heat#	Brinell Hardn.	Required Min Thk	Recorded Min Thk	Form. Pres.
H91469-1	HEAD(S) - Semi-Elliptical 2:1 - 0.8750" NOM (0.8125" MIN) X 16" OD (Material Spec: SA 516-70 Normalized) Conforms to NACE MR0175 / ISO 15156-2 2009 Annex A	6	JK566053-A084058-02	145	0.8125"	0.8180"	1
		1	297060-20619	MTR	0.8125"	0.8190"	1
		1	JK566051-A084056-01	145	0.8125"	0.8320"	1
		1	350402-15030	MTR	0.8125"	0.8190"	1
		1	351656-35146	MTR	0.8125"	0.8150"	1
		1	7204628N-CA724677	158	0.8125"	0.8210"	1
		1	7204842N-CA723361	158	0.8125"	0.8450"	1
		1	7204842N-CA723361	158	0.8125"	0.8450"	1
		1	350403-12280	MTR	0.8125"	0.8230"	1
		3	344657-76977	MTR	0.8125"	0.8180"	1
		5	350402-14854	MTR	0.8125"	0.8170"	1
		2	G4225-275240728	MTR	0.8125"	0.8190"	1
		3	290117-15566	MTR	0.8125"	0.8230"	1
		8	G4225-275240720	MTR	0.8125"	0.8220"	1
		1	350402-14890	MTR	0.8125"	0.8290"	1

Checked By WJ
Conforms to
ASME Section II

2010 Edition

OCT 14 2011 Date



edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

5545-89 Street Edmonton, Alberta Canada T6E 5W9

www.edmontonexchanger.com

tel 780.468.6722 • QC fax 780.466.4668 • sales fax 780.466.5155

Customer RJV GASFIELD LTD.

PO 2773

Work Order C91469 Date 2011/10/14 CofC# 28015 Page 2 of 2

Forming Procedure:

1. Hot Formed @ 1650F/899C and Air Cooled

Brinell Equipment: Newage Calibrated Pin
Brinell Hardness Tester

Supplementary Requirements

Normalized Material Identification Marking:

'MT' indicates normalized by the mill per ASME Code Section II, Part A, SA 20, Paragraph 13.1.1.

'GMT' indicates normalized by Edmonton Exchanger per ASME Code Section II, Part A, SA 20, Paragraph 13.1.2.

'GT' indicates normalized by Edmonton Exchanger per ASME Code Section VIII Division 1, UG-85 or ASME Code Section I, PG-77.4.

The item(s) listed above comply with the requirements of ASME Code Section I, PG-29, PG-81 and ASME Code Section VIII, Division 1, UCS-79(d), UG-79 & UG-81. All welders and procedures are qualified to ASME Code Section IX. Material being supplied conforms to the latest ASME Code Section II, Part A, 2010 Edition.

Supplementary Examination - Items



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ AUS Certificate No.		Shoot	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07		315779-002		1/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		ARCELOR CANADA, BURLI		EDMONTON STEEL, EDMON	
B02/ Steel design.		SA516-70		61056		E10408-J1010-LG	
B03 Any suppl. requirements		ASME-2A:04+A05					
		DIL-HUB-2:R21-2006-04-27					



13040

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A08 Purchase article number
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15577-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15578-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15580-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15585-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15586-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15588-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15589-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15532-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15555-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15558-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15559-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15561-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15562-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15563-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15565-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15566-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15568-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15569-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15571-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15572-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15574-01	ITEM 1
**	21				136710				
02	1	1,1250 x	97,00000 x	480,00000	6738	N	290119	15480-01	ITEM 2

Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

A04		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Date 22.01.07 Inspector's stamp B. MUELLER Test House Manager	KW 1
-----	--	--	--	------



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07	315779-002	2/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DH	Final receiver	HOT ROLLED PLATES		
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-2A: 04+A05				
requirements DIL-HUE-2: R21-2006-04-27				
		ARCELOR CANADA, BURLI A07.1 No. 61056		
		EDMONTON STEEL, EDMON A07.2 No. E10408-J1010-LG		

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	290119	15481-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	290119	15482-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	290119	15483-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	290119	15484-01	ITEM 2
**	5				33890				
***	26				170400				

B04 Product delivery condition

ITEM NO.: 01-02
 N: HT: 1670 GR.F +36 -27 GR.F
 SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1.75 MIN/MM (25-45 MIN/INCH)
 COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-02
 STEEL DESIGNATION SA516 70 MTLV SA516 60 MTLV
 HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

C10-C29 Tensile test

B14 Item No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13	A % L0=5IN	A % L0=2IN	C14-C15
01	290115	15577	K1 Q RT	48,9	72,9		32,4		
01	290115	15578	K1 Q RT	49,9	72,8		31,9		
01	290115	15580	K1 Q RT	49,0	72,6		29,9		

A04 Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



QM-System: Certification as per ISO 9001

B. Müller
 B. MUELLER
 Test House Manager



AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department

Inspector's stamp Date 22.01.07 KW 1



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07		315779-002		3/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		ARCELOR CANADA, BURLI		61056		EDMONTON STEEL, EDMON	
B02/ Steel design		Final receiver				HOT ROLLED PLATES	
B03 Any suppl. requirements		ASME-2A: 04+A05					
		DIL-HUE-2: R21-2006-04-27					

C10-C29 Tensile test

B14 B07.2 Item Heat No.	B07.1 Rel. plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C03 C01 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13	A % LO=8IN	A % LO=2IN	C14-C15
01	290115	15585	K1 Q	RT	48,7	72,5		29,9		
01	290115	15586	K1 Q	RT	49,9	72,9		31,4		
01	290115	15588	K1 Q	RT	49,4	72,9		30,4		
01	290115	15589	K1 Q	RT	50,0	72,8		30,4		
01	290117	15532	K1 Q	RT	50,0	73,7		30,9		
01	290117	15555	K1 Q	RT	49,6	74,1		29,4		
01	290117	15558	K1 Q	RT	49,2	72,8		31,9		
01	290117	15559	K1 Q	RT	50,2	73,1		30,9		
01	290117	15561	K1 Q	RT	49,7	74,0		28,0		
01	290117	15562	K1 Q	RT	49,6	73,1		38,3		
01	290117	15563	K1 Q	RT	49,2	73,8		27,5		
01	290117	15565	K1 Q	RT	50,9	74,0		31,9		
01	290117	15566	K1 Q	RT	48,6	73,2		29,4		
01	290117	15568	K1 Q	RT	48,7	72,5		31,4		
01	290117	15569	K1 Q	RT	50,2	72,6		29,9		
01	290117	15571	K1 Q	RT	49,7	72,8		28,9		
01	290117	15572	K1 Q	RT	50,6	73,4		28,4		
01	290117	15574	K1 Q	RT	49,4	73,2		30,9		
02	290119	15480	K1 Q	RT	49,6	72,9		31,9		
02	290119	15481	K1 Q	RT	49,6	73,4		31,9		
02	290119	15482	K1 Q	RT	50,6	73,5		29,9		
02	290119	15483	K1 Q	RT	49,9	73,8		29,9		
02	290119	15484	K1 QV	RT	50,3	74,8			33,9	

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. MUELLER
Test House Manager



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp

Date 22.01.07

KW 1

A01



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body DH		A06 Purchaser Final receiver	A07.1 No. 61056 ARCELOR CANADA, BURLI	A07.2 No. E10408-JT010-LG EDMONTON STEEL, EDMON	A10 Advice of dispatch No./ Date of dispatch 24.11.96-20.01.07	A09 Manufacturer's order/ A03 Certificate No. 315779-002 B01 Product HOT ROLLED PLATES	Sheet 4/...
---------------------------------------	--	---------------------------------	--	--	--	--	----------------

B02/ Steel design. SA516-70
B03 Any suppl. ASME-2A:04+A05
requirements DIL-HUE-2:R21-2006-04-27

C30-C39 Hardness test

B14 Item.	B07.2 Heat No.	B07.1 Related Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C35 Individual values	C31	C32 Average value
01	290115	15577		K1	O	RT	HBW 10/3000	HB 142	142	142
01	290115	15578		K1	O	RT	HBW 10/3000	HB 143	149	145
01	290115	15580		K1	O	RT	HBW 10/3000	HB 141	141	140
01	290115	15585		K1	O	RT	HBW 10/3000	HB 143	141	141
01	290115	15586		K1	O	RT	HBW 10/3000	HB 142	144	142
01	290115	15588		K1	O	RT	HBW 10/3000	HB 146	143	144
01	290115	15589		K1	O	RT	HBW 10/3000	HB 144	143	143
01	290117	15532		K1	O	RT	HBW 10/3000	HB 142	142	142
01	290117	15555		K1	O	RT	HBW 10/3000	HB 143	142	142
01	290117	15558		K1	O	RT	HBW 10/3000	HB 145	143	143
01	290117	15559		K1	O	RT	HBW 10/3000	HB 143	142	142
01	290117	15561		K1	O	RT	HBW 10/3000	HB 142	140	141
01	290117	15562		K1	O	RT	HBW 10/3000	HB 145	143	144
01	290117	15563		K1	O	RT	HBW 10/3000	HB 142	143	142
01	290117	15565		K1	O	RT	HBW 10/3000	HB 145	143	144
01	290117	15566		K1	O	RT	HBW 10/3000	HB 144	143	143
01	290117	15568		K1	O	RT	HBW 10/3000	HB 142	142	141
01	290117	15569		K1	O	RT	HBW 10/3000	HB 149	149	147
01	290117	15571		K1	O	RT	HBW 10/3000	HB 149	149	147
01	290117	15572		K1	O	RT	HBW 10/3000	HB 140	141	140
01	290117	15574		K1	O	RT	HBW 10/3000	HB 144	143	144
02	290119	15480		K1	O	RT	HBW 10/3000	HB 147	145	146
02	290119	15481		K1	O	RT	HBW 10/3000	HB 143	141	143
02	290119	15482		K1	O	RT	HBW 10/3000	HB 142	143	143

A04 2017/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

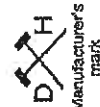
ADB

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. MUELLER
Test House Manager

Inspector's stamp Date 22.01.07

KW 1





DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A03 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07	315779-002	5/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DH	ARCELOR CANADA, BURLI	HOT ROLLED PLATES		
B02 Steel design.				
SA516-70				
B03 Any suppl. requirements				
ASME-2A:04+A05				
DIL-HUE-2:R21-2006-04-27				
Final receiver		EDMONTON STEEL, EDMON		
A07.1 No.		61056		
A07.2 No.		E10408-J1010-LG		

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C33 Testing method	C35 Individual values	C32 Average value
02	290119	15483		KL O		RT HBW 10/3000		HB 146 145 145	145
02	290119	15484		KL O		RT HBW 10/3000		HB 145 142 140	142

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C41 Width of test place	C40 Type of test place	C44 Testing method	C46 Energy	C45 Individual values AV=FTLBF	C43 Average value
01	290115	15577		KL LV		-51		CHP-V			AV 142 156 90	129
01	290115	15578		KL LV		-51		CHP-V			AV 204 134 146	161
01	290115	15580		KL LV		-51		CHP-V			AV 138 123 205	155
01	290115	15585		KL LV		-51		CHP-V			AV 231 119 119	156
01	290115	15586		KL LV		-51		CHP-V			AV 196 191 113	167
01	290115	15588		KL LV		-51		CHP-V			AV 142 195 139	159
01	290115	15589		KL LV		-51		CHP-V			AV 157 170 163	163
01	290117	15532		KL LV		-51		CHP-V			AV 161 150 196	169
01	290117	15555		KL LV		-51		CHP-V			AV 104 115 129	116
01	290117	15558		KL LV		-51		CHP-V			AV 122 152 212	162
01	290117	15559		KL LV		-51		CHP-V			AV 121 111 201	144
01	290117	15561		KL LV		-51		CHP-V			AV 124 129 132	128
01	290117	15562		KL LV		-51		CHP-V			AV 104 89 114	102
01	290117	15563		KL LV		-51		CHP-V			AV 137 122 122	127
01	290117	15565		KL LV		-51		CHP-V			AV 75 189 159	141
01	290117	15566		KL LV		-51		CHP-V			AV 134 199 84	139
01	290117	15568		KL LV		-51		CHP-V			AV 128 114 125	122
01	290117	15569		KL LV		-51		CHP-V			AV 176 189 128	164
01	290117	15571		KL LV		-51		CHP-V			AV 147 132 93	124

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Spitz
B. MUELLER
Test House Manager



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp Date 22.01.07

KW 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07	315779-002	6/...
MATERIAL TEST REPORT (MTR)		B01 Product		
A05 Established inspecting body		HOT ROLLED PLATES		
DH	A06 Purchaser	B01 Product		
	Final receiver	HOT ROLLED PLATES		
B02/ Steel design.	SA516-70			
B03 Any suppl. requirements	ASME-2A:04+A05 DIL-HUE-2:R21-2006-04-27			

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Recl./plates/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 Individual values AV=FT.LBF	C43 Average value
01	290117	15572		K1	LV	-51		CHP-V				
01	290117	15574		K1	LV	-51		CHP-V				
02	290119	15480		K1	LV	-51		CHP-V				
02	290119	15481		K1	LV	-51		CHP-V				
02	290119	15482		K1	LV	-51		CHP-V				
02	290119	15483		K1	LV	-51		CHP-V				
02	290119	15484		K1	LV	-51		CHP-V				

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	Si	Mn	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
290115	Y	0,173	0,359	1,16	0,010	0,0012	0,0057	0,031	0,016	0,005	0,023	0,026	0,000	0,000	0,001
290117	Y	0,175	0,360	1,14	0,008	0,0009	0,0048	0,039	0,047	0,007	0,071	0,033	0,000	0,000	0,001
290119	Y	0,173	0,354	1,17	0,010	0,0008	0,0068	0,029	0,022	0,019	0,036	0,031	0,000	0,000	0,001

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	FO-02=	FO-55=	FO-78=	FO-91=
290115	0,38	0,38	0,07	6,7
290117	0,38	0,38	0,16	6,5
290119	0,38	0,38	0,11	6,8

A04 Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

ADB

AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

3. J. Müller

B. MUELLER

Inspector's stamp

Date 22.01.07

KW 1



Manufacturer's mark



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07		315779-002		7/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body	A06 Purchaser	ARCELOR CANADA, BURLI		A07.1 No. 61056		
DH	Final receiver	EDMONTON STEEL, EDMON		A07.2 No. E10408-J1010-1G		HOT ROLLED PLATES
B02/ Steel design.	SA516-70					
B03 Any suppl. requirements	ASME-2A:04+A05 DIL-HUE-2:R21-2006-04-27					

C95 Ladle treatment

ITEM NO.: 01-02

HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C70-C99 Chemical composition % - Product analysis

		C	SI	MIN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
B07.2	B07.1														
Heat	Test No.														
290115	15578	K1 0,170	0,345	1,14	0,009	0,0009	0,0051	0,031	0,015	0,004	0,019	0,024	0,000	0,000	0,000
290117	15569	K1 0,172	0,347	1,13	0,008	0,0010	0,0055	0,037	0,041	0,006	0,061	0,032	0,000	0,000	0,000
290119	15483	K1 0,168	0,354	1,16	0,009	0,0009	0,0070	0,030	0,021	0,019	0,032	0,031	0,000	0,000	0,000
B07.2	B07.1														
Heat	Test No.														
290115	15578	K1 0,003	0,0000												
290117	15569	K1 0,003	0,0000												
290119	15483	K1 0,003	0,0001												

C94 Product analysis Carbon equivalent / Alloying restrictions

		FO-02	FO-55
B07.2	B07.1		
Heat	Test No.		
290115	15578	K1 FO-02= 0,37	FO-55= 0,06
290117	15569	K1 FO-02= 0,37	FO-55= 0,14
290119	15483	K1 FO-02= 0,37	FO-55= 0,10

C94 Carbon equivalent formula / Alloying restrictions

FO-02 = $C + (MN/6) + (CR+MO+V) / 5 + (NI+CU) / 15$
 FO-55 = $CU+MO+NI+CR$
 FO-78 = $CR+MO$
 FO-91 = MN/C

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. Mueller
 B. MUELLER
 Test House Manager



AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department

Inspector's stamp Date 22.01.07

KW

1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch 24.2.156-20.01.07	A08/ Manufacturer's order/ A03 Certificate No. 315779-002	Sheet 8
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991				
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser Final receiver	A07.1 No. 61056	B01 Product HOT ROLLED PLATES	
		A07.2 No. E10408-J1010-LG		
B02/ Steel design. SA516-70				
B03 Any suppl. requirements	ARCELOR CANADA, BURLI EDMONTON STEEL, EDMON			
DIL-HUE-2:R21-2006-04-27				

D01 Marking and identification, surface appearance, shape and dimensional properties

ITEM NO.: 01-02

RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS
SURFACE AS PER ASME-SA20
THICKNESS AS PER ASME-SA20
LENGTH AND WIDTH AS PER ASME-SA20
FLATNESS AS PER 1/2-ASME-SA20



A04	2012/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
	QM-System: Certification as per ISO 9001	Inspector's stamp Date 22.01.07	KW 1
Manufacturer's mark	B. MUELLER Test House Manager		



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Shoot
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11-07-07	321444-001	1/...
MATERIAL TEST REPORT (MTR)				
A06 Established inspecting body	A06 Purchaser	S01 Product		
DH	Final receiver	HOT ROLLED PLATES		
S02/ Steel design. S4516-70				
S03 Any suppl. ASME-2A:04+A05				
DIL-HUE-2:R21-2006-04-27				
ARCELOR CANADA, BURLI A07.1 No. 70072				
EDMONTON STEEL, EDMON A07.2 No. E10435-J1010-LG				



13727

B01-B99 Description of the product

B14 Item No.	B06 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
		INCH			KG				
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	292660	89773-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297056	20557-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297056	20557-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297056	20558-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297056	20558-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297056	20558-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297056	20560-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297056	20560-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297056	20560-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297067	30527-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297067	30527-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297067	30527-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297067	30528-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297067	30528-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	5580	N	297067	30528-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000 x	83700	N	297060	20452-01	ITEM 2
**	15								
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297060	20452-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297060	20452-03	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297060	20618-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297060	20618-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297060	20619-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297060	20619-02	ITEM 2

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark

ADB

B. MUELLER
Test House Manager

Inspector's stamp
RECEIVED JUL 16 2007

KW 1

A01

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificates)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A09 Manufacturer's order/ A08 Certificate No.	Shoot
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	2/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	A07.1 No. 70072	S01 Product	
DE	Final receiver	ARCELOR CANADA, BURLI	HOT ROLLED PLATES	
		EDMONTON STEEL, EDMON		
B02 Steel design. SA516-70				
B03 Any suppl. requirements				
DIL-HUE-2:R21-2006-04-27				

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	0,8750 x	96,50000 x	480,00000 x	5214 N	N	297680	92858-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214 N	N	297680	92858-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214 N	N	297680	92858-03	ITEM 2
++	10				52140				
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20544-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20544-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20544-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20550-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20550-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20550-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20551-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20551-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20551-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20552-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20552-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20552-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20553-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20553-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20553-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20554-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20554-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20554-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	297059	20555-01	ITEM 3

A04	201/2002/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar inspection department	Inspector's stamp Date 12.07.07	KW 1
QM-System: Certification as per ISO 9001		B. MUELLER Test House Manager		



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001
MATERIAL TEST REPORT (MTR)		B01 Product	
A05 Established inspecting body		HOT ROLLED PLATES	
DH	A06 Purchaser	B01 Product	
	Final receiver	HOT ROLLED PLATES	
B02/ Steel design.	SA516-70	A07.1 No. 70072	
B03 Any suppl. requirements	ASME-2A:04+A05 DIL-EUE-2:R21-2006-04-27	A07.2 No. E10435-J1010-LG	

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20555-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20555-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20556-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20556-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20556-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20453-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20453-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20453-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20526-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20526-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20526-03	ITEM 3
**	30				195300				
***	55				331140				

B04 Product delivery condition

ITEM NO.: 01-03
N: HT: 1670 GR.F +36 -27 GR.F
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-03
STEEL DESIGNATION SA516 70 MTLTV SA516 60 MTLTV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

A04	201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department
	DMH Manufacturer's mark	ADH Inspector's stamp	Test House Manager
	QM-System: Certification as per ISO 9001	Date 12.07.07	KW 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A09 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	4/...
MATERIAL TEST REPORT (MTR)			B01 Product	
A05 Established inspecting body		HOT ROLLED PLATES		
DH				
A06 Purchaser		ARCELOR CANADA, BURLI A07.1 No. 70072		
Final receiver		EDMONTON STEEL, EDMON A07.2 No. E10435-J1010-LG		
B02/ Steel design.		SA516-70		
B03 Any suppl. requirements		ASME-2A:04+A05 DIL-HUE-2:R21-2006-04-27		

C10-C29 Tensile test

B14 B07.2 Item Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13 A % LO=8IN	C14-C15
01 292660 89773			K1 Q	Q	RT	50,3	75,0	28,9	
01 297056 20557			K1 Q	Q	RT	50,9	75,8	28,0	
01 297056 20558			K1 Q	Q	RT	50,6	75,3	28,4	
01 297056 20560			K1 Q	Q	RT	51,0	76,7	28,9	
01 297067 30527			K1 Q	Q	RT	51,0	76,3	29,9	
01 297067 30528			K1 Q	Q	RT	52,5	76,3	31,4	
02 297060 20452			K1 Q	Q	RT	50,3	74,0	30,9	
02 297060 20618			K1 Q	Q	RT	51,0	75,4	29,9	
02 297060 20619			K1 Q	Q	RT	50,6	75,7	30,9	
02 297680 92858			K1 Q	Q	RT	49,9	74,1	31,9	
03 297059 20544			K1 Q	Q	RT	50,6	75,3	30,9	
03 297059 20550			K1 Q	Q	RT	51,8	76,6	34,4	
03 297059 20551			K1 Q	Q	RT	51,3	76,7	29,4	
03 297059 20552			K1 Q	Q	RT	51,9	76,7	26,5	
03 297059 20553			K1 Q	Q	RT	50,2	76,1	29,4	
03 297059 20554			K1 Q	Q	RT	51,3	76,6	29,4	
03 297059 20555			K1 Q	Q	RT	50,9	76,7	29,9	
03 297059 20556			K1 Q	Q	RT	51,3	77,0	29,9	
03 297060 20453			K1 Q	Q	RT	51,9	75,7	39,3	
03 297060 20526			K1 Q	Q	RT	50,8	75,5	29,4	

A04		201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
QM-System: Certification as per ISO 9001			Inspector's stamp	Date 12.07.07
Manufacturer's mark		B. MUELLER Test House Manager		KW 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Address of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	5/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DE	Final receiver	HOT ROLLED PLATES		
SA516-70				
ASME-2A:04+A05				
DIL-HUE-2:R21-2006-04-27				
ARCELOR CANADA, BURLI		A07.1 No. 70072		
EDMONTON STEEL, EDMON		A07.2 No. E10435-J1010-LG		

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Rollplate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C03 Testing method	C05	C01 Individual values	C02	C03 Mean value
01	292660	89773		K1	O	RT	HBW 10/3000	HB 145	146	145	145
01	297056	20557		K1	O	RT	HBW 10/3000	HB 147	147	146	147
01	297056	20558		K1	O	RT	HBW 10/3000	HB 146	148	149	148
01	297056	20560		K1	O	RT	HBW 10/3000	HB 147	148	148	148
01	297067	30527		K1	O	RT	HBW 10/3000	HB 150	149	146	148
01	297067	30528		K1	O	RT	HBW 10/3000	HB 145	145	145	145
02	297060	20452		K1	O	RT	HBW 10/3000	HB 148	146	149	148
02	297060	20618		K1	O	RT	HBW 10/3000	HB 148	148	147	148
02	297060	20619		K1	O	RT	HBW 10/3000	HB 151	150	152	151
02	297680	92858		K1	O	RT	HBW 10/3000	HB 142	143	146	144
03	297059	20344		K1	O	RT	HBW 10/3000	HB 151	149	147	149
03	297059	20550		K1	O	RT	HBW 10/3000	HB 147	149	146	147
03	297059	20551		K1	O	RT	HBW 10/3000	HB 149	150	148	149
03	297059	20552		K1	O	RT	HBW 10/3000	HB 148	148	146	147
03	297059	20553		K1	O	RT	HBW 10/3000	HB 148	150	146	147
03	297059	20554		K1	O	RT	HBW 10/3000	HB 148	148	146	147
03	297059	20555		K1	O	RT	HBW 10/3000	HB 150	148	147	148
03	297059	20556		K1	O	RT	HBW 10/3000	HB 148	147	148	148
03	297060	20453		K1	O	RT	HBW 10/3000	HB 149	146	148	148
03	297060	20526		K1	O	RT	HBW 10/3000	HB 148	150	149	149

201/2002/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

A04		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Date 12.07.07	KW 1
B. MEILLER Test House Manager		Inspector's stamp			



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

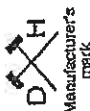
A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A09 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	6/...
MATERIAL TEST REPORT (MTR)		B01 Product HOT ROLLED PLATES		
A05 Established inspecting body DE	A06 Purchaser ARCELOR CANADA, BURLI	A07.1 No. 70072		
	Final receiver EDMONTON STEEL, EDMON	A07.2 No. E10435-J1010-LG		
B02/ Steel design. SAS16-70				
B03 Any suppl. ASME-2A:04+A05				
requirements DIL-HUE-2:R21-2006-04-27				

C40-C49 Impact test

B14 Item	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C45 Energy	C45 Individual values AV=FILBF	C43 Mean value
01	292660	89773		K1	LV	-51		CHP-V		AV 96	118	202
01	297056	20557		K1	LV	-51		CHP-V		AV 99	109	114
01	297056	20558		K1	LV	-51		CHP-V		AV 115	118	179
01	297056	20560		K1	LV	-51		CHP-V		AV 114	119	122
01	297067	30527		K1	LV	-51		CHP-V		AV 135	108	98
01	297067	30528		K1	LV	-51		CHP-V		AV 130	184	182
02	297060	20452		K1	LV	-51		CHP-V		AV 73	105	117
02	297060	20618		K1	LV	-51		CHP-V		AV 150	145	148
02	297060	20619		K1	LV	-51		CHP-V		AV 131	111	126
02	297680	92858		K1	LV	-51		CHP-V		AV 86	117	169
03	297059	20544		K1	LV	-51		CHP-V		AV 131	128	149
03	297059	20550		K1	LV	-51		CHP-V		AV 128	107	115
03	297059	20551		K1	LV	-51		CHP-V		AV 111	133	89
03	297059	20552		K1	LV	-51		CHP-V		AV 184	137	115
03	297059	20553		K1	LV	-51		CHP-V		AV 95	182	134
03	297059	20554		K1	LV	-51		CHP-V		AV 93	181	115
03	297059	20555		K1	LV	-51		CHP-V		AV 126	136	100
03	297059	20556		K1	LV	-51		CHP-V		AV 97	90	181
03	297060	20453		K1	LV	-51		CHP-V		AV 193	187	147
03	297060	20526		K1	LV	-51		CHP-V		AV 97	145	159

201/2004/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark

[Signature]

B. MOELLER
Test House Manager



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp Date 12.07.07

KW

1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07		321444-001		7/...
MATERIAL TEST REPORT (MTR)						
A05 Established inspecting body		A06 Purchaser		A07.1 No. 70072		
DIL		ARCELOR CANADA, BURLI		EDMONTON STEEL, EDMON		
B02/ Steel design.		SA516-70		E10435-J1010-LG		
B03 Any suppl. requirements		ASME-2A:04+PA05				
DIL-HUE-2:R21-2006-04-27						
Final receiver				HOT ROLLED PLATES		

C70-C99 Chemical composition % - Heat analysis

	C70	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
B07.2 Heat															
292660	Y	0,177	0,369	1,16	0,008	0,0003	0,0035	0,050	0,028	0,012	0,056	0,026	0,001	0,000	0,001
297056	Y	0,188	0,365	1,17	0,010	0,0007	0,0068	0,030	0,030	0,009	0,041	0,020	0,000	0,000	0,001
297059	Y	0,187	0,358	1,18	0,009	0,0009	0,0064	0,035	0,028	0,004	0,024	0,029	0,000	0,000	0,001
297060	Y	0,183	0,367	1,18	0,010	0,0007	0,0065	0,035	0,020	0,013	0,027	0,035	0,000	0,000	0,000
297067	Y	0,190	0,356	1,18	0,009	0,0007	0,0059	0,034	0,025	0,008	0,034	0,029	0,001	0,000	0,002
297680	Y	0,179	0,373	1,19	0,008	0,0010	0,0060	0,049	0,029	0,008	0,040	0,027	0,000	0,000	0,001
B07.2 Heat															
292660	Y	0,002	0,0000	0,0010											
297056	Y	0,003	0,0002	0,0021											
297059	Y	0,002	0,0000	0,0014											
297060	Y	0,003	0,0001	0,0016											
297067	Y	0,002	0,0002	0,0010											
297680	Y	0,002	0,0001	0,0026											

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat															
292660		FO-02=	0,38	FO-55=	0,12	FO-78=	0,04	FO-91=	6,6						
297056		FO-02=	0,39	FO-55=	0,10	FO-78=	0,03	FO-91=	6,2						
297059		FO-02=	0,39	FO-55=	0,09	FO-78=	0,03	FO-91=	6,3						
297060		FO-02=	0,39	FO-55=	0,10	FO-78=	0,05	FO-91=	6,4						
297067		FO-02=	0,40	FO-55=	0,10	FO-78=	0,04	FO-91=	6,2						
297680		FO-02=	0,39	FO-55=	0,10	FO-78=	0,04	FO-91=	6,6						

A04		ZD/1702/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
	B. MUELLER Test House Manager	3. pin	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
		Inspector's stamp	Date 12.07.07	KW 1



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A03 Manufacturer's order/ A03 Certificate No.		Shoot	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07		321444-001		8/...	
MATERIAL TEST REPORT (MTR)							
A05 Established inspecting body		A06 Purchaser		A07.1 No. 70072		B01 Product	
DE		ARCELOR CANADA, BURLI		EDMONTON STEEL, EDMON		HOT ROLLED PLATES	
B02/ Steel design.		SA516-70		A07.2 No. E10435-J1010-LG			
B03 Any suppl. requirements		ASME-2A: 04+A05 DIL-EUE-2: R21-2006-04-27					

C95 Ladle treatment

ITEM NO.: 01-03

HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C70-C99 Chemical composition % - Product analysis

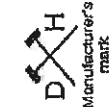
B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
292660	89773	K1	0,172	0,362	1,17	0,007	0,0005	0,0048	0,049	0,027	0,011	0,047	0,026	0,001	0,000	0,001
292660	89773	K1	0,180	0,362	1,16	0,010	0,0012	0,0079	0,028	0,028	0,010	0,042	0,023	0,000	0,000	0,001
297059	20560	K1	0,183	0,361	1,17	0,009	0,0009	0,0062	0,036	0,028	0,004	0,024	0,030	0,000	0,000	0,000
297059	20553	K1	0,182	0,362	1,17	0,010	0,0004	0,0066	0,034	0,019	0,014	0,029	0,034	0,000	0,000	0,001
297060	20618	K1	0,183	0,347	1,15	0,008	0,0006	0,0057	0,035	0,024	0,006	0,035	0,028	0,001	0,000	0,001
297067	30528	K1	0,178	0,362	1,17	0,008	0,0010	0,0061	0,046	0,026	0,007	0,039	0,027	0,000	0,000	0,000
297680	92858	K1	0,178	0,362	1,17	0,008	0,0010	0,0061	0,046	0,026	0,007	0,039	0,027	0,000	0,000	0,000

C94 Product analysis

Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01	TI	B
292660	89773	K1	0,002	0,0002
297056	20560	K1	0,003	0,0003
297059	20553	K1	0,002	0,0000
297060	20618	K1	0,003	0,0000
297067	30528	K1	0,002	0,0001
297680	92858	K1	0,002	0,0000

A04



Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. MOELLER
Test House Manager

Inspector's stamp

Date 12.07.07

KW

1

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

A01



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No./ Date of dispatch 264364-11.07.07	A08/ Manufacturer's order/ A03 Certificate No. 321444-001	Sheet 9
A05 Established inspecting body DH		A06 Purchaser ARCELOR CANADA, BURLI A07.1 No. 70072 Final receiver EDMONTON STEEL, EDMON A07.2 No. E10435-J1010-LG		
S02/ Steel design. SA516-70				
S03 Any suppl. requirements		ASME-2A: 04+A05 DIL-HUE-2: R21-2006-04-27		

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2	B07.1	C01
Heat	Test No.	
297067	30528	K1 FO-02= 0,39 FO-55= 0,09
297680	92858	K1 FO-02= 0,38 FO-55= 0,10

C94 Carbon equivalent formula / Alloying restrictions

FO-02 = $C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15$
FO-55 = $Cu+Mo+Ni+Cr$
FO-78 = $Cr+Mo$
FO-91 = Mn/C

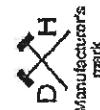
D01 Marking and Identification, surface appearance, shape and dimensional properties

ITEM NO.: 01-03
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS
SURFACE AS PER ASME-SA20
THICKNESS AS PER ASME-SA20
LENGTH AND WIDTH AS PER ASME-SA20
FLATNESS AS PER 1/2-ASME-SA20



A04 ZD1/ZD2/ZD3 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. MUELLER
Test House Manager



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp Date 12.07.07

KW

1

FROM :

PHONE NO. :

FEB. 12 2008 11:56AM P1

01.12.08 11:56 00003740312634

PAGE 01

舞阳钢铁有限责任公司

WUYANG IRON AND STEEL CO., LTD



地址: 中国河南省舞钢市 Add: Wugang City, Henan Pro., P. R. China 462500

TO:	Wirth Steel Shanghai	E-mail:	wgleco66@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL:	0086-375-8111899
FAX:	021-64153908	PAX:	0086-375-8112634
DATE:	February 12, 2008	PAGE:	1/1

RE: Certificate for PO#8155-V

CERTIFICATION

We hereby certify that all the liquid steel for A516-70 under PO#8155-V has been vacuum degassed and all the plates have been produced as per ASTM/ASME A/SA516-70(Edition 2004-A06). And the Quality Certificates are issued as per EN10204-3.1 (Edition 2004).

Wuyang Iron And Steel Co., Ltd.

February 12, 2008

For and on behalf of
WUYANG IRON AND STEEL CO., LTD

Authorized signature(s)



FROM : PHONE NO. : SEP. 16 2007 06:57PM P1

PAGE 01

舞阳钢铁有限责任公司
WUYANG IRON AND STEEL CO., LTD

TO: Wirth Steel Shanghai E-mail: wgleco66@vip.163.com
ATTN: Mr. Gong Chenghua TEL: 0086-375-8111899
FAX: 021-64153508 FAX: 0086-375-8112634
DATE: September 14, 2007 PAGE: 1+1

RE: Certificate

CERTIFICATE

We hereby confirmed the condition of test piece in our MTR is normalized per ASTM A516-70/ASME SA516-70 spec requirement, which is same as the plate delivery condition - Normalized for the plates we sold to Wirth Steel.

Wuyang Iron And Steel Co., Ltd.

September 14, 2007

For and on behalf of
WUYANG IRON AND STEEL CO., LTD

Authorized signature(s)



收 貨 單	位 位	ORDER NO. 8155-V
CUSTOMER	:	
合 同 編	號 號	U7WYWCW-54
CONTRACT	No.:	

W
舞阳钢铁有限公司
WUYANG IRON AND
STEEL CO. LTD.

质量证明书
QUALITY CERTIFICATE

技 术 条 件 : 地 址 : 中国河南新郑
 邮 袋 : 462500
 ZIP CODE : 462500
 电 话 (Tel.) : 0375-8111264
 传 真 (Fax) : 0375-8111269
 TECHNICAL CONDITION: ASTM A516 Gr. 70/ASME Gr. 70/SECTION 2B (1) + 2B (2) 30
 ADDRESS: WANG HENAN CHINA

QR/C07E05

证明书号: 07K3437

CERTIFICATE NO.

证 可 证 号:	号:
EXEQUATUR NO.:	号:
TRAIN NO.:	号:



14030

[illegible]

供 应 状 态: 正火
CONVCTION OF SUPPLY: NO REALIZER

试样状态: CONDITION OF TEST PIECE:

合计:	3	块	16.008	吨
总计:				

1. PRIME QUALITY, NEWLY PRODUCED, HOT ROLLED KILLED STEEL P.V.Q. PLATES TO ASTM A515 GR. 70/ASME A515 GR. 70 TO EDITION 2001+2003A). 2. TOLERANCES TO A20. FLATNESS TOLERANCE AS PER 1/2 OF A20.
3. DEFORMATIONS, WITH CHARY V-NOTCH TEST TO A20 CAT. IV. -50R CHARY V NOTCH IMPACT TEST HAS BEEN PERFORMED AND PROVIDED FOR REFERENCE ONLY. 3. LIQUID STEEL WAS PROCESSED BY ADDING CA-SI
4. ALLY FOR SULPHIDE SHAPE CONTROL. 4. ALL MATERIAL WAS TOTALLY VACUUM DEGASSED AND THAT ALL PLATES WERE ULTRASONICALLY INSPECTED ACCORDING TO ASTM A435. 5. IMITATING ON NOMINAL THEORETICAL
WEIGHT OF 7.85 G/MG. 6. COLOR CODE: YELLOW/YELLOW/YELLOW COLOR STRIKE CODE. 7. INFORMATION ON STEEL PLATE NORMALISING CYCLE: 1. SOAKING TEMPERATURE: 900°C +/-10°C. (2). SOAKING TIME:
1.5 MINUTES/MTR. (3). COOLING RATES: AIR COOLING. 8. QUALITY CERTIFICATE ISSUED AS PER EN10204/3.1B. 5a:5

Quality certificate according to EN 10204:2004/3.1

PERSON - IN - CHARGE OF QUALITY EXAMINATION : 吳永斌

注：1. 本质量证明书无产品质量证明专用章无效。

判 定 員: QUALITY CONTROL INSPECTOR

市 核 員: 商 玲

DATE: MONTH DAY YEAR



NOTE : 1. This certificate will not be valid unless marked with special seal of quality certification.

1. This certificate will not be valid unless it has been sealed or quality certification.
2. The duplicated copy of the certificate shall be invalid. Corrected area must be marked with special seal of quality control inspection.

FROM :

PHONE NO. :

FEB. 12 2008 11:56AM P1

00112-2008 11:56 0000000000000000

PAGE 01



舞阳钢铁有限责任公司
WUYANG IRON AND STEEL CO., LTD

地址: 中国河南省舞钢市 Add: Wugang City, Henan Pro., P. R. China 462500

TO:	Wirth Steel Shanghai	E-mail:	wgleco66@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL:	0086-375-8111899
FAX:	021-64153908	PAX:	0086-375-8112634
DATE:	February 12, 2008	PAGE:	1/1

RE: Certificate for PO#8155-V

CERTIFICATION

We hereby certify that all the liquid steel for A516-70 under PO#8155-V has been vacuum degassed and all the plates have been produced as per ASTM/ASME A/SA516-70(Edition 2004-A06). And the Quality Certificates are issued as per EN10204-3.1 (Edition 2004).

Wuyang Iron And Steel Co., Ltd.

February 12, 2008

For and on behalf of
WUYANG IRON AND STEEL CO., LTD

Authorized signature(s)



FROM :

PHONE NO. :

SEP. 16 2007 06:57PM P1

WUYANG IRON AND STEEL CO., LTD.

PAGE 01

舞阳钢铁有限责任公司
WUYANG IRON AND STEEL CO., LTD

地址: 中国河南省舞钢市 Add: Wuyang City, Henan P.R., P. R. China 462500
TO: Wirth Steel Shanghai E-mail: wgleco66@vip.163.com
ATTN: Mr. Gong Chenghua TEL: 0086-375-8111899
FAX: 021-54153908 FAX: 0086-375-8112634
DATE: 1 September 14, 2007 PAGE: 1+1
RE: Certificate

CERTIFICATE

We hereby confirmed the condition of test piece in our MTR is normalized per ASTM A516-70/ASME SA516-70 spec requirement, which is same as the plate delivery condition - Normalized for the plates we sold to Wirth Steel.

Wuyang Iron And Steel Co., Ltd

September 14, 2007

For and on behalf of
WUYANG IRON AND STEEL CO., LTD

Authorized signature(s)



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		356925-08.04.10	353891-002	1/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	A07.1 No.	A07.2 No.	
DH	EDMONTON STEEL, EDMON	ED10547-J1010-ER		
Final receiver				
EDMONTON STEEL, EDMON				
SA20-S5				
B02 Steel design.	SA516-70			
B03 Any suppl. requirements	ASME-II-A:07-A09 DIL-HUE-2:R30-2010-01-31			

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	0,7500 x	150,00000 x	480,00000 x	6946	N	344392	72568-01	
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	344657	76977-01	
05	1	1,0000 x	96,50000 x	480,00000 x	5959	N	344650	04162-01	
06	1	1,0000 x	178,00000 x	356,00000 x	8152	N	343716	58575-01	
06	1	1,0000 x	178,00000 x	356,00000 x	8152	N	343716	58576-01	
06	1	1,0000 x	178,00000 x	356,00000 x	8152	N	343716	58575-02	
**	3				24456				
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	343972	39374-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	344390	72572-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	344390	72572-02	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	344390	72572-03	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	344390	72573-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	344390	72573-02	
**	6				56034				
***	12				99905				

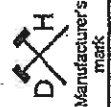
B04 Product delivery condition

ITEM NO.: 01-03,05-06,08-09

N: HT: 1670 GR.F +36 -27 GR.F.

SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

A04



Manufacturer's mark

Z01/202/208 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



DR. CH. DILG
Test House Manager

Inspector's stamp

Date 08.04.10

PP 1

A01

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
inspection department



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004.		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		355925-08.04.10		353891-002		2/...	
MATERIAL TEST REPORT (NTR)		EDMONTON STEEL, EDMONTON		A07.1 No. ED10547-J1010-ER		B01 Product	
A05 Established inspecting body		Final receiver		EDMONTON STEEL, EDMONTON		HOT ROLLED PLATES	
DH							
B02/ Steel design.		SA516-70		SA20-S5			
B03 Any suppl.		ASME-11-A:07+A09					
requirements		DIL-HUE-2-R30-2010-01-31					

B06 Marking of the product

ITEM NO.: 01-03,05-06,08-09
STEEL DESIGNATION SA516 70 MILTY SA516 60 MILTY
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

B07-B99 Further information about the product

ITEM NO.: 01-03,05-06,08-09
THICKNESS REDUCTION RATIO $\geq 3,0$ IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B07.1 Replate/ Test No.	B05 Reference (heat) treatment	C01 C02 C03 C04 C05	C12 RM	C13 A % LP=BN	C14-C15 A % LP=BN
02	344392	72568	K1 Q	RT	50,3	26	42
03	344657	76977	K1 Q	RT	52,3	30	
05	344650	04162	K1 Q	RT	49,9	30	
06	343716	58575	K1 Q	RT	51,8	30	
06	343716	58576	K1 Q	RT	48,1	30	
09	343972	39374	K1 QV	RT	50,9	34	
09	344390	72572	K1 QV	RT	48,7	37	
09	344390	72573	K1 QV	RT	48,1	42	

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Replate/ Test No.	B05 Reference (heat) treatment	C01 C02/C01	C03 Temp. GRF	C33 Testing method	C35 C31 Individual values	C32 Mean value
02	344392	72568		K1 O	RT	HBW 10/3000	HB 148	148
03	344657	76977		K1 O	RT	HBW 10/3000	HB 137	141
05	344650	04162		K1 O	RT	HBW 10/3000	HB 144	146

A04	D/H	Manufacturer's mark	DR. CH. DILLG	Inspector's stamp	Date 08.04.10	PP 1
A01		AG der Dillinger Hüttenwerke		Postfach 1580, D-66748 Dillingen/Saar		
Z01Z02Z03		We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		Inspection department		
QM-System: Certification as per ISO 9001		A01				



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		356925-08.04.10		353891-002		3/...	

MATERIAL TEST REPORT (MTR)		A07.1 No. ED10547-J1010-ER		B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body		A06 Purchaser		A07.2 No.			
DH		Final receiver					

B02/ Steel design		SA516-70		SA20-S5			
B03. Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUE-2-R30-2010-01-31					

C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C33 Testing method	C35 C31 Individual values	C32 Mean value
06	343716	58575		K1	O	RT HBW 10/3000	HB 145	145	146
06	343716	58576		K1	O	RT HBW 10/3000	HB 144	145	146
09	343972	39374		K1	O	RT HBW 10/3000	HB 146	146	146
09	344390	72572		K1	O	RT HBW 10/3000	HB 142	146	144
09	344390	72573		K1	O	RT HBW 10/3000	HB 143	142	143

C40-C49 Impact test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C41 Width of test piece	C44 Testing method	C43 Mean value
02	344392	72568		K1	LV	-51	CHP-V	AV 99	85
03	344657	76977		K1	LV	-51	CHP-V	AV 157	188
05	344650	04162		K1	LV	-51	CHP-V	AV 201	123
06	343716	58575		K1	LV	-51	CHP-V	AV 198	191
06	343716	58576		K1	LV	-51	CHP-V	AV 112	117
09	343972	39374		K1	LV	-51	CHP-V	AV 114	80
09	344390	72572		K1	LV	-51	CHP-V	AV 97	131
09	344390	72573		K1	LV	-51	CHP-V	AV 100	114

C70-C99 Chemical composition % - Heat analysis									
B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO
343716	Y	0.183	0.383	1.20	0.012	0.0005	0.0068	0.019	0.005
343972	Y	0.193	0.389	1.19	0.008	0.0005	0.0061	0.024	0.007
344390	Y	0.174	0.386	1.19	0.008	0.0012	0.0065	0.025	0.006
344392	Y	0.176	0.371	1.18	0.009	0.0010	0.0065	0.023	0.016
344650	Y	0.160	0.343	1.17	0.009	0.0012	0.0067	0.022	0.005

A04 Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar	
DR. CH. DILG Test House Manager		Inspection department	
Inspector's stamp		Date 08.04.10	
pp		1	



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		A10 Advice of dispatch No./ Date of dispatch 356925-08.04.10	A08/ Manufacturer's order/ A03 Certificate No. 353891-002	Sheet 4/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH A06 Purchaser EDMONTON STEEL, EDMON		A07.1 No. ED10547-J1010-BR		
Final receiver EDMONTON STEEL, EDMON		A07.2 No.		

B02/ Steel design. SA516-70	SA20-S5	
B03 Any suppl. requirements DIL-HUE-2:R30-2010-01-31		

C70-C99 Chemical composition % - Heat analysis

	C70	C	Si	Mn	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
B07.2 Heat 344657	Y	0,174	0,338	1,19	0,011	0,0009	0,0059	0,028	0,015	0,035	0,029	0,000	0,000	0,000	0,002
B07.2 Heat 343716	Y	0,0002	0,0007	0,032											
343972	Y	0,0001	0,0009	0,045											
344390	Y	0,0002	0,0031	0,045											
344392	Y	0,0002	0,0016	0,034											
344650	Y	0,0001	0,0020	0,027											
344657	Y	0,0001	0,0016	0,027											

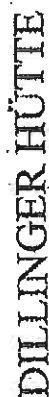
C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat 343716	FO-02=	0,39	FO-51=	0,001	FO-55=	0,08	FO-78=	0,03	FO-91=	6,6
343972	FO-02=	0,40	FO-51=	0,000	FO-55=	0,10	FO-78=	0,04	FO-91=	6,2
344390	FO-02=	0,39	FO-51=	0,000	FO-55=	0,12	FO-78=	0,06	FO-91=	5,8
344392	FO-02=	0,39	FO-51=	0,000	FO-55=	0,11	FO-78=	0,05	FO-91=	5,7
344650	FO-02=	0,37	FO-51=	0,000	FO-55=	0,09	FO-78=	0,04	FO-91=	7,3
344657	FO-02=	0,39	FO-51=	0,000	FO-55=	0,11	FO-78=	0,04	FO-91=	6,8

C95 Ladle treatment

ITEM NO.: 01-03,05-06,08-09	HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL
-----------------------------	--

A04	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A07
QM-System: Certification as per ISO 9001		DR. CH. DILLG Test House Manager	PP 1
		Inspector's stamp Date 08.04.10	



Erklärungen siehe Rückseite/Explications voir au verso	A02	INSPECTION CERTIFICATE 3.1	AS PER EN 10204:2004	AS PER ISO 10474:1991

Erklärungen siehe Rückseite
AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1 B AS PER EN 10204:1991+AL:1995 + AS PER ISO 10474:1991

MATERIAL, TEST REPORT :(MTR)

ANS Established inspecting body	A06 Purchaser	EDMONTON STEEL, EDMON	A07.1 No. ED10547-J1010-ER
---------------------------------	---------------	-----------------------	----------------------------

AN5 Established inspecting body	A08 Purchaser	EDMONTON STEEL, EDMON
---------------------------------	---------------	-----------------------

Final receiver

DH	Final receiver	EDMONTON STEEL, EDMON
DH	...	...

B02/ Steel design. SA 516-70

SA20-55

ASME-II-A: 07+A09

ASME-II-A: 07+A09

Requirements : DTI-HUE-2:R30-2010-01-31

Requirements : DTI-HUE-2:R30-2010-01-31

CO5 Further information about ladle treatment

ITEM NO. : 01-03, 05-06, 08-09

CALCIUM TREATED

c70-c99 Chemical composition % - Product analysis

C01		C01																
B072 Heat	B071 Test No.	C	SI	MM	P	S	N	CU	MO	NI	CR	V	NB	SN	TI			
343716	58576	K1	0,177	0,382	1,19	0,011	0,0004	0,0074	0,017	0,004	0,025	0,029	0,001	0,001	0,002			
343972	39374	K1	0,183	0,386	1,18	0,008	0,0009	0,0062	0,025	0,007	0,029	0,039	0,000	0,000	0,002			
344390	72572	K1	0,171	0,383	1,18	0,007	0,0017	0,0062	0,025	0,005	0,038	0,028	0,000	0,001	0,002			
344392	72567	K1	0,178	0,371	1,16	0,009	0,0008	0,0066	0,022	0,018	0,037	0,034	0,000	0,001	0,002			
344392	72568	K1	0,175	0,369	1,16	0,008	0,0009	0,0067	0,023	0,014	0,036	0,030	0,000	0,000	0,002			
344392	72570	K1	0,176	0,376	1,17	0,008	0,0010	0,0067	0,023	0,015	0,038	0,030	0,001	0,001	0,002			
344650	04162	K1	0,167	0,407	1,15	0,008	0,0012	0,0068	0,020	0,009	0,029	0,034	0,000	0,001	0,002			
344657	76977	K1	0,172	0,405	1,17	0,009	0,0009	0,0056	0,028	0,019	0,035	0,028	0,000	0,001	0,002			
C01		C01																
B072 Heat	B071 Test No.	B	CA	AL-T														
343716	58576	K1	0,0002	0,0010	0,032													
343972	39374	K1	0,0001	0,0010	0,048													
344390	72572	K1	0,0001	0,0029	0,045													
344392	72567	K1	0,0001	0,0017	0,033													
344392	72568	K1	0,0001	0,0017	0,036													
344392	72570	K1	0,0001	0,0018	0,035													
344650	04162	K1	0,0002	0,0036	0,029													
344657	76977	K1	0,0000	0,0035	0,028													

_____ We hereby certify that the above mentioned materials have been delivered in accordance

QM-System: Certification as per ISO 9001.



Manufacturer's

A01

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen
Inspection department



Ch. Dief

DR. CH. DRIG
Fast House Manager

Instructor's stamp

Instructor's stamp

100



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Shoot	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		356925-08.04.10		353891-002		6	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		EDMONTON STEEL, EDMON	
DH		Final receiver		A07.2 No.		EDMONTON STEEL, EDMON	
B02/ Steel design		SA516-70		SA20-S5			
B03 Any suppl.		ASME-II-A:07+A09					
requirements		DIL-HUE-2:R30-2010-01-31					

C94 Product analysis Carbon equivalent / Alloying restrictions

C94	
B07.2 Heat	B07.1 Test No.
343716 58576	K1 FO-02= 0,38 FO-51= 0,001 FO-55= 0,08
343972 39374	K1 FO-02= 0,39 FO-51= 0,000 FO-55= 0,10
344390 72572	K1 FO-02= 0,38 FO-51= 0,000 FO-55= 0,10
344392 72567	K1 FO-02= 0,39 FO-51= 0,000 FO-55= 0,11
344392 72568	K1 FO-02= 0,38 FO-51= 0,000 FO-55= 0,10
344392 72570	K1 FO-02= 0,38 FO-51= 0,001 FO-55= 0,11
344650 04162	K1 FO-02= 0,37 FO-51= 0,000 FO-55= 0,09
344657 76977	K1 FO-02= 0,38 FO-51= 0,000 FO-55= 0,11

C94 Carbon equivalent formula / Alloying restrictions:

FO-02 = $C + (Mn/S) + (Cr+Mo+V) / 5 + (Ni+Cu) / 15$
FO-51 = V + Nb
FO-55 = Cu+Mo+Ni+Cr
FO-78 = Cr+Mo
FO-91 = Mn/C

D01 Marking and identification, surface appearance, shape and dimensional properties

ITEM NO.: 01-03,05-06,08-09
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS
SURFACE AS PER ASME-SA20
THICKNESS AS PER ASME-SA20
LENGTH AND WIDTH AS PER ASME-SA20
FLATNESS AS PER 1/2-ASME-SA20



A04		A07	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department
QM-System: Certification as per ISO 9001		Inspector's stamp	Date 08.04.10
DR. CH. DILLG Test House Manager			PP 1

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		1/-	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON		SA20-S5	
B02 Steel design		SA516-70		B03 Any suppl. requirements		DIL-HUE-2-R30-2010-01-31	
Final receiver		EDMONTON STEEL, EDMON		HOT ROLLED PLATES			
						15711	

B04-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	348840	11315-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350041	63961-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350041	63961-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	17648-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	17648-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	17648-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	17724-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	17724-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	17724-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	20921-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	20921-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	20921-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21295-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21295-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21295-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21306-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21306-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21322-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21322-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21322-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	39539-01	39539-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	39539-02	39539-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	39694-02	39694-02	

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

A04



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
inspection department

B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		2/...	
MATERIAL TEST REPORT (MTR.)				B01 Product			
A05 Examined inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON	
B07/ Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUE-2:R30-2010-01-31					
				HOT ROLLED PLATES			

B01-B99 Description of the product.

B14 Item No.	B03 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39694-03	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39715-02	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39774-01	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39774-02	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39774-03	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39799-01	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39799-02	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39799-03	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39959-01	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39959-02	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39959-03	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39965-01	
01	1	0,6250 x	120,50000 x	480,00000	4650 N	N	350405	39965-02	
**	36				167400				
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15513-01	
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15513-02	
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15513-03	
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15526-01	
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15526-02	
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15526-03	
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15608-01	
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15610-01	
02	1	0,7500 x	120,50000 x	480,00000	5580 N	N	350401	15610-02	

2017/2023 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark

R. Baig



B. BAIDAUF
Test House Manager

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp

Date 17.09.10

BM

A01



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+AL:1995 + AS PER ISO 10474:1991
 MATERIAL TEST REPORT (MTR)

A03 Established inspecting body A08 Purchaser EDMONTON STEEL, EDMONTON A07.1 No. ED10551-J1010-ER
 DH Final receiver EDMONTON STEEL, EDMONTON A07.2 No.

B02/ Steel design. SA516-70
 B03 Any suppl. ASME-II-A-07+A09
 requirements DIL-HUE-2-R30-2010-01-31

A10 Advice of dispatch No./ Date of dispatch 369429-17.09.10
 A09 Manufacturer's order/ Certificate No. 357359-002
 B01 Product HOT ROLLED PLATES

B01-B99 Description of the product										A09 Purchaser article number	
B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.			
INCH											
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350401	15610-03			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350401	15626-01			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350401	15626-02			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350401	15645-01			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350401	15645-02			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350401	15645-03			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350402	15169-03			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350402	15399-01			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350402	15399-02			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350402	15399-03			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350405	39714-01			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350405	39946-01			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350405	39946-02			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350405	39946-03			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350405	39963-01			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350405	39963-02			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350405	40537-01			
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	350405	40537-02			
**	27				150660						
03	1	0,7500 X	150,00000 X	480,00000 X	6946	N	350403	13199-01			
03	1	0,7500 X	150,00000 X	480,00000 X	6946	N	350403	13199-02			
03	1	0,7500 X	150,00000 X	480,00000 X	6946	N	350403	13199-03			
03	1	0,7500 X	150,00000 X	480,00000 X	6946	N	350403	13308-01			

A04 Z01702/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.
 QM-System: Certification as per ISO 9001
 AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department
 ADB
 Inspector's stamp Date 17.09.10 BM 1
 B. BALDAUF
 Test House Manager



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No./ Date of dispatch 369429-17.09.10	A08/A09 Manufacturer's order/ Certificate No. 357359-002	Sheet 4/...
A05 Established inspecting body DH		A07.1 No. ED10551-J1010-ER EDMONTON STEEL, EDMONTON		
A06 Purchaser Final receiver		A07.2 No. EDMONTON STEEL, EDMONTON		
B02/ Steel design. SA516-70		SA20-SS		
B03 Any suppl. requirements		ASME-II-A-07+A09 DIL-HUE-2:R30-2010-01-21		

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N	N	350403	13308-02	
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N	N	350403	13308-03	
**	6				41676				
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11964-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11964-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11964-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11979-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11979-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11979-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12013-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12013-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12013-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12280-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12280-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12638-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12638-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12638-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350404	11955-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350404	11955-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350404	11955-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350405	05031-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350405	05031-02	
**	19				123690				

A04	Z01/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
			
QM-System: Certification as per ISO 9001		Inspector's stamp Date 17.09.10	BM 1
Manufacturer's mark		B. BALDAUF Test House Manager	



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

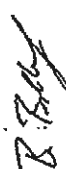
A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		5/...	
MATERIAL TEST REPORT (MTR)				B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER	
DH		Final receiver		EDMONTON STEEL, EDMON		A07.2 No.	
B02/ Steel design.		SA516-70		SA20-S5			
B03 Any suppl requirements		ASME-II-A: 07+A09		DIL-HUE-2:R30-2010-01-31			

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
05	1	0,8750 x	150,00000 x	480,00000 x	8104	N	350402	14854-01	
05	1	0,8750 x	150,00000 x	480,00000 x	8104	N	350402	14854-02	
**	2				16208				
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	06356-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	06356-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	06357-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	06357-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	06357-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	06943-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	06943-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	06943-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	07812-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	07812-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	07812-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	07813-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	07813-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	07813-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	10672-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	10672-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	10672-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	11097-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	11097-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959	N	350404	11097-03	

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

A04	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01
 B. BALDAUF Test House Manager		 Date 17.09.10 BM 1	





DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		6/-	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON		ROT ROLLED PLATES	
B02 Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUE-2:R30-2010-01-31					

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05063-01	
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05063-02	
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05063-03	
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05064-01	
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05064-02	
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05064-03	
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05065-01	
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05065-02	
07	1	1,0000 X	96,50000 X	480,00000 X	5959 N	5959 N	350405	05065-03	
**	29				172811				
***	119				672445				

B04 Product delivery condition

ITEM NO.: 01-05,07-08
N: HT: 1670 GR.F +36 -27 GR.F
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-05,07-08
STEEL DESIGNATION SA516 70 MTLV SA516 60 MTLV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

A04 201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar inspection department		A01	
D/H Manufacturer's mark		AHB Inspector's stamp		Date 17.09.10	
QM-System: Certification as per ISO 9001		B. BALDAUF Test House Manager		BM 1	



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	7/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10551-J1010-ER	801 Product HOT ROLLED PLATES	
Final receiver EDMONTON STEEL, EDMON				
SA20-S5				
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-II-A:07+A09				
requirements DIL-HUE-2:R30-2010-01-31				

B07-B99 Further information about the product

ITEM NO.: 01-05, 07-08

THICKNESS REDUCTION RATIO $\geq 3:0$ IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 B07.2: Item No.	B07.1: Ref. No.	Reference (heat) treatment	C01 Temp. °C	C02 Temp. °F	C03 Temp. °F	C10 KSI	C11 KSI	C12 RM	C13 RM	A % Lo-SIN	C14-C15
01 348840-11315	B05	K1 Q	RT	RT	RT	51,3	51,3	77,6	77,6	27	
01 350041 63961		K1 Q	RT	RT	RT	47,9	47,9	73,1	73,1	29	
01 350399 17648		K1 Q	RT	RT	RT	51,3	51,3	76,6	76,6	27	
01 350399 17724		K1 Q	RT	RT	RT	50,5	50,5	76,3	76,3	28	
01 350399 20921		K1 Q	RT	RT	RT	49,9	49,9	75,7	75,7	25	
01 350399 21295		K1 Q	RT	RT	RT	50,8	50,8	76,4	76,4	26	
01 350399 21306		K1 Q	RT	RT	RT	50,5	50,5	75,8	75,8	26	
01 350399 21322		K1 Q	RT	RT	RT	50,3	50,3	76,3	76,3	28	
01 350405 39539		K1 Q	RT	RT	RT	50,9	50,9	75,8	75,8	29	
01 350405 39694		K1 Q	RT	RT	RT	50,5	50,5	75,0	75,0	28	
01 350405 39715		K1 Q	RT	RT	RT	50,2	50,2	75,4	75,4	31	
01 350405 39774		K1 Q	RT	RT	RT	49,7	49,7	75,3	75,3	27	
01 350405 39799		K1 Q	RT	RT	RT	49,6	49,6	75,0	75,0	28	
01 350405 39959		K1 Q	RT	RT	RT	50,3	50,3	75,8	75,8	28	
01 350405 39965		K1 Q	RT	RT	RT	48,7	48,7	74,7	74,7	28	
02 350401 15513		K1 Q	RT	RT	RT	46,7	46,7	73,7	73,7	27	
02 350401 15526		K1 Q	RT	RT	RT	48,3	48,3	73,5	73,5	28	
02 350401 15608		K1 Q	RT	RT	RT	49,0	49,0	74,2	74,2	26	
02 350401 15610		K1 Q	RT	RT	RT	46,7	46,7	73,5	73,5	30	
02 350401 15626		K1 Q	RT	RT	RT	49,2	49,2	74,2	74,2	28	

A04 Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QIM-System: Certification as per ISO 9001



B. BALDAUF
Test House Manager

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp Date 17.09.10

BM 1



C10-C29 Tensile test

Heat No.	B07.2	B07.1	B05	Reference (heat) treatment	C01	C02	C03	C10	C11	KSI	RP02	RM	C12	C13
Heat No.	Relapsed/ Test No.				C01	C02	C03	C10	C11	GRF	RP02	RM	C12	C13
02	350401	15645			K1 Q	Q	RT	48.9				74.0		29
02	350402	15169			K1 Q	Q	RT	49.2				75.1		28
02	350402	15399			K1 Q	Q	RT	50.5				75.3		28
02	350405	39714			K1 Q	Q	RT	49.6				75.3		26
02	350405	39946			K1 Q	Q	RT	49.0				75.4		28
02	350405	39963			K1 Q	Q	RT	48.6				74.5		27
02	350405	40537			K1 Q	Q	RT	46.5				73.7		27
03	350403	13199			K1 Q	Q	RT	50.0				75.5		27
03	350403	13308			K1 Q	Q	RT	49.3				75.3		26
04	350403	11964			K1 Q	Q	RT	49.9				74.1		30
04	350403	11979			K1 Q	Q	RT	49.2				74.7		29
04	350403	12013			K1 Q	Q	RT	49.0				74.0		29
04	350403	12280			K1 Q	Q	RT	49.9				74.1		27
04	350403	12283			K1 Q	Q	RT	50.0				74.5		28
04	350403	12638			K1 Q	Q	RT	49.6				74.7		29
04	350404	11955			K1 Q	Q	RT	48.9				74.8		30
04	350405	05031			K1 Q	Q	RT	49.7				75.1		27
05	350402	14854			K1 Q	Q	RT	49.3				75.0		28
07	350404	06356			K1 Q	Q	RT	50.0				74.1		29
07	350404	06357			K1 Q	Q	RT	49.7				74.1		30
07	350404	06943			K1 Q	Q	RT	49.6				74.4		30
07	350404	07812			K1 Q	Q	RT	50.3				74.0		30
07	350404	07813			K1 Q	Q	RT	50.2				74.2		30
07	350404	10672			K1 Q	Q	RT							

Z01/Z02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's
mark

$$\frac{A}{B}$$

B. BALDAUF
Test House Manager

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar.
Instruction department

Inspector's stamp

1
ME

A01



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	9/...
MATERIAL TEST REPORT (MTR)				

A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10551-J1010-ER
	Final receiver EDMONTON STEEL, EDMON	A07.2 No.

B02/ Steel design. SA516-70	SA20-S5
B03 Any suppl. requirements	ASME-II-A-07+A09 DIL-HUE-2-R30-2010-01-31

C10-C29 Tensile test									
Item No.	B07.1 Heat No.	B05 Rol./plate/ Test No.	Reference (heat) treatment	C01	C02/ C03 Temp. GRF	C10 C11 KSI RP02	C12 RM	C13	A % LO-8IN
07	350404	11097		K1 Q	RT	48,3	73,8		30
07	350405	05063		K1 Q	RT	50,2	74,7		29
07	350405	05064		K1 Q	RT	50,5	74,4		28
07	350405	05065		K1 Q	RT	50,0	74,1		31

C30-C39 Hardness test									
Item No.	B07.2 Heat No.	B05 Rol./plate/ Test No.	Reference (heat) treatment	C01	C02/C03 Temp. GRF	C30 Method of test	C35 C37 Individual values	C32 Mean value	C14-C15
01	348840	11315		K1	RT	HBW 10/3000	HB 147	149	148
01	350041	63961		K1	RT	HBW 10/3000	HB 141	143	142
01	350399	17648		K1	RT	HBW 10/3000	HB 146	147	146
01	350399	17724		K1	RT	HBW 10/3000	HB 148	146	145
01	350399	20921		K1	RT	HBW 10/3000	HB 146	145	144
01	350399	21295		K1	RT	HBW 10/3000	HB 144	144	143
01	350399	21306		K1	RT	HBW 10/3000	HB 144	143	142
01	350399	21322		K1	RT	HBW 10/3000	HB 142	142	142
01	350405	39539		K1	RT	HBW 10/3000	HB 142	142	141
01	350405	39694		K1	RT	HBW 10/3000	HB 142	142	141
01	350405	39715		K1	RT	HBW 10/3000	HB 142	142	141
01	350405	39774		K1	RT	HBW 10/3000	HB 144	145	143
01	350405	39799		K1	RT	HBW 10/3000	HB 145	145	144
01	350405	39959		K1	RT	HBW 10/3000	HB 144	145	145
01	350405	39965		K1	RT	HBW 10/3000	HB 139	139	138
02	350401	15513		K1	RT	HBW 10/3000	HB 142	142	141

A04	2010/02/203	Wia hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 17.09.10	EW 1
QM-System: Certification as per ISO 9001		B. BALDAUF Test House Manager			
D/H Manufacturer's mark		A01			



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	10/...
MATERIAL TEST REPORT (MTR)				

A05 Established inspecting body	A06 Purchaser	EDMONTON STEEL, EDMONTON A07:1 No. ED10551-J1010-ER		
DH	Final receiver	EDMONTON STEEL, EDMONTON A07:2 No.		

B02/ Steel design	SA516-70	SA20-S5
B03 Any suppl. requirements	ASME-II-A:07+A09	
	DIL-HUE-2:R30-2010-01-31	

C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. ORLE	C30 Method of test	C35 Individual values	C32 Mean value
02	350401	15526		X1	O	RT	HBW 10/3000	HB 142 142 139	141
02	350401	15608		X1	O	RT	HBW 10/3000	HB 141 140 139	140
02	350401	15610		X1	O	RT	HBW 10/3000	HB 142 141 140	141
02	350401	15626		X1	O	RT	HBW 10/3000	HB 138 139 139	139
02	350401	15645		X1	O	RT	HBW 10/3000	HB 139 139 137	138
02	350402	15169		X1	O	RT	HBW 10/3000	HB 141 142 140	141
02	350402	15399		X1	O	RT	HBW 10/3000	HB 146 146 144	145
02	350405	39714		X1	O	RT	HBW 10/3000	HB 144 144 144	144
02	350405	39946		X1	O	RT	HBW 10/3000	HB 145 144 145	145
02	350405	39963		X1	O	RT	HBW 10/3000	HB 142 142 141	142
02	350405	40537		X1	O	RT	HBW 10/3000	HB 141 141 140	141
03	350403	13199		X1	O	RT	HBW 10/3000	HB 143 143 142	143
03	350403	13308		X1	O	RT	HBW 10/3000	HB 142 143 142	142
04	350403	11964		X1	O	RT	HBW 10/3000	HB 142 142 142	142
04	350403	11979		X1	O	RT	HBW 10/3000	HB 142 142 142	142
04	350403	12013		X1	O	RT	HBW 10/3000	HB 144 144 143	143
04	350403	12280		X1	O	RT	HBW 10/3000	HB 142 142 142	142
04	350403	12638		X1	O	RT	HBW 10/3000	HB 141 141 142	141
04	350404	11955		X1	O	RT	HBW 10/3000	HB 141 141 141	141
04	350405	05031		X1	O	RT	HBW 10/3000	HB 144 146 144	145
05	350402	14854		X1	O	RT	HBW 10/3000	HB 148 146 145	146
07	350404	06356		X1	O	RT	HBW 10/3000	HB 142 142 141	142
07	350404	06357		X1	O	RT	HBW 10/3000	HB 139 140 139	139
07	350404	06943		X1	O	RT	HBW 10/3000	HB 142 142 142	142

A04	201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 17.09.10	BM 1
QM-System: Certification as per ISO 9001				
Manufacturer's mark		B. BALDAUF Test House Manager		



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204-2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204-1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body

A06 Purchaser

Final receiver

SA20-S5

SAS16-70

ASME-II-A-07+A09

DIL-HUB-2-R30-2010-01-31

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

EDMONTON STEEL, EDMONTON

A03 Manufacturer's order/
A03 Certificate No.

357359-002

801 Product

HOT ROLLED PLATES

A10 Advice of dispatch No./
Date of dispatch

369429-17.09.10

Sheet

11/...

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C36 Method of test	C35 C31 Individual values	C32 Mean value
07	350404	07812		K1	O	RT HBW 10/3000		HB 145 145 144	145
07	350404	07813		K1	O	RT HBW 10/3000		HB 144 145 144	144
07	350404	10672		K1	O	RT HBW 10/3000		HB 146 144 143	144
07	350404	11037		K1	O	RT HBW 10/3000		HB 144 144 144	144
07	350405	05063		K1	O	RT HBW 10/3000		HB 146 147 146	146
07	350405	05064		K1	O	RT HBW 10/3000		HB 144 144 144	144
07	350405	05065		K1	O	RT HBW 10/3000		HB 144 144 144	144

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C42 Individual values AV=FTLSF	C43 Mean value
01	348840	11315		K1	LV	-51	-51	CHP-V			AV 101 123	121
01	350041	63961		K1	LV	-51	-51	CHP-V			AV 208 195	195
01	350399	17648		K1	LV	-51	-51	CHP-V			AV 193 125	143
01	350399	17724		K1	LV	-51	-51	CHP-V			AV 117 181	149
01	350399	20921		K1	LV	-51	-51	CHP-V			AV 124 120	135
01	350399	21295		K1	LV	-51	-51	CHP-V			AV 119 119	145
01	350399	21306		K1	LV	-51	-51	CHP-V			AV 141 209	161
01	350399	21322		K1	LV	-51	-51	CHP-V			AV 122 197	171
01	350405	39539		K1	LV	-51	-51	CHP-V			AV 184 196	192
01	350405	39694		K1	LV	-51	-51	CHP-V			AV 208 187	179
01	350405	39715		K1	LV	-51	-51	CHP-V			AV 104 194	150
01	350405	39774		K1	LV	-51	-51	CHP-V			AV 119 198	152
01	350405	39799		K1	LV	-51	-51	CHP-V			AV 129 162	163
01	350405	39959		K1	LV	-51	-51	CHP-V			AV 198 150	185

201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. BALDAUF
Test House Manager

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp Date 17.09.10

BM 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser

DH Final receiver

EDMONTON STEEL, EDMON

EDMONTON STEEL, EDMON

SA516-70

ASME-II-A: 07+A09

DIL-HUE-2: R30-2010-01-31

SA20-S5

A08/ Manufacturer's order/ A03 Certificate No.

357359-002

B01 Product

HOT ROLLED PLATES

A10 Advice of dispatch No./ Date of dispatch

369429-17.09.10

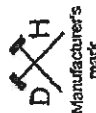
Sheet

12/...

C40-C49 Impact test

B14 Item No.	B07.1 Heat No.	B07.2 Rel. plate/ Test No.	B05 Reference (heat) treatment	C01	C02 C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 Individual values AV=FT/LBF	C43 Mean value
01	350405	39965		K1	LV	-51	-51	CHP-V			AV 192	147
02	350401	15513		K1	LV	-51	-51	CHP-V			AV 128	150
02	350401	15526		K1	LV	-51	-51	CHP-V			AV 195	209
02	350401	15608		K1	LV	-51	-51	CHP-V			AV 137	131
02	350401	15610		K1	LV	-51	-51	CHP-V			AV 117	193
02	350401	15626		K1	LV	-51	-51	CHP-V			AV 122	186
02	350401	15645		K1	LV	-51	-51	CHP-V			AV 145	165
02	350402	15169		K1	LV	-51	-51	CHP-V			AV 159	175
02	350402	15399		K1	LV	-51	-51	CHP-V			AV 186	183
02	350405	39714		K1	LV	-51	-51	CHP-V			AV 144	159
02	350405	39946		K1	LV	-51	-51	CHP-V			AV 205	136
02	350405	39963		K1	LV	-51	-51	CHP-V			AV 119	201
02	350405	40537		K1	LV	-51	-51	CHP-V			AV 131	116
03	350403	13199		K1	LV	-51	-51	CHP-V			AV 120	125
03	350403	13308		K1	LV	-51	-51	CHP-V			AV 130	124
04	350403	11964		K1	LV	-51	-51	CHP-V			AV 192	142
04	350403	11979		K1	LV	-51	-51	CHP-V			AV 90	181
04	350403	12013		K1	LV	-51	-51	CHP-V			AV 136	121
04	350403	12280		K1	LV	-51	-51	CHP-V			AV 109	133
04	350403	12638		K1	LV	-51	-51	CHP-V			AV 114	146
04	350404	11955		K1	LV	-51	-51	CHP-V			AV 117	164
04	350405	05031		K1	LV	-51	-51	CHP-V			AV 157	129
05	350402	14854		K1	LV	-51	-51	CHP-V			AV 118	123
07	350404	06356		K1	LV	-51	-51	CHP-V			AV 131	190

2012/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



QM-System: Certification as per ISO 9001



B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

BM

1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificates)

A02	INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004	A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
A02	INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991	369429-17.09.10	357359-002	13/...
MATERIAL TEST REPORT (MTR)				
A05	Established inspecting body	A06 Purchaser	A07.1 No.	EDMONTON STEEL, EDMON
DH		Final receiver	A07.2 No.	EDMONTON STEEL, EDMON
B02/	Steel design.	SA516-70	SA20-S5	
B03	Any suppl requirements	ASME-II-A: 07+A09 DIL-HUE-2: R30-2010-01-31		

C40-C49 impact test

B14	B07.2	B07.1	B05	C01	C02/	C03	C41	C40	C44	C46	C45	C42	C43
Item	Heat No.	Rolling	Reference (heat) treatment		C01	Temp.	Width of	Type of	Testing method	Energy	Individual values	Mean	value
No.	Test No.					GRF	test piece	test piece			AV=FT.LBF		
07	350404	06357		K1	LV	-51		CHP-V		AV 114	98	153	122
07	350404	06943		K1	LV	-51		CHP-V		AV 188	108	123	140
07	350404	07812		K1	LV	-51		CHP-V		AV 190	106	128	141
07	350404	07813		K1	LV	-51		CHP-V		AV 193	118	130	147
07	350404	10672		K1	LV	-51		CHP-V		AV 55	153	145	118
07	350404	11097		K1	LV	-51		CHP-V		AV 150	204	131	162
07	350405	05063		K1	LV	-51		CHP-V		AV 101	124	122	116
07	350405	05064		K1	LV	-51		CHP-V		AV 95	146	122	121
07	350405	05065		K1	LV	-51		CHP-V		AV 88	194	125	136

C70-C99 Chemical composition % - Heat analysis

B07.2	C70	C	SI	MIN	P	S	N	CU	MO	NI	CR	V	NE	SN	TI
Heat															
348840	Y	0,184	0,384	1,18	0,010	0,0011	0,0063	0,044	0,010	0,053	0,030	0,001	0,000	0,001	0,003
350041	Y	0,163	0,344	1,19	0,012	0,0009	0,0071	0,037	0,014	0,048	0,045	0,001	0,000	0,001	0,003
350399	Y	0,176	0,376	1,19	0,010	0,0011	0,0075	0,046	0,015	0,055	0,049	0,001	0,000	0,001	0,003
350401	Y	0,170	0,364	1,17	0,008	0,0013	0,0085	0,036	0,011	0,055	0,026	0,001	0,000	0,001	0,002
350402	Y	0,174	0,386	1,18	0,010	0,0012	0,0075	0,037	0,011	0,064	0,027	0,001	0,000	0,001	0,003
350403	Y	0,170	0,373	1,17	0,009	0,0010	0,0063	0,042	0,008	0,063	0,031	0,001	0,000	0,001	0,002
350404	Y	0,174	0,376	1,19	0,009	0,0009	0,0071	0,044	0,008	0,067	0,031	0,000	0,000	0,001	0,002
350405	Y	0,172	0,381	1,19	0,009	0,0010	0,0059	0,040	0,010	0,057	0,035	0,001	0,000	0,001	0,003

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



B. BALDAUF
Test House Manager

Inspector's stamp Date 17.09.10

BM 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		14/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER	
DH		Final receiver		EDMONTON STEEL, EDMON		A07.2 No.	
3021 Steel design.		SA516-70		SA20-S5			
303 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUS-2:R30-2010-01-31					

C70-C99 Chemical composition % - Heat analysis

	C70	B	CA	AL-T
B07.2 Heat				
348840	Y	0,0003	0,0015	0,035
350041	Y	0,0004	0,0015	0,033
350399	Y	0,0002	0,0015	0,035
350401	Y	0,0000	0,0020	0,044
350402	Y	0,0002	0,0013	0,033
350403	Y	0,0001	0,0014	0,034
350404	Y	0,0003	0,0014	0,033
350405	Y	0,0003	0,0014	0,035

C94 Heat analysis Carbon equivalent / Alloying restrictions

	FO-02=	FO-51=	FO-55=	FO-78=	FO-91=
B07.2 Heat					
348840	0,40	0,40	0,001	0,04	6,4
350041	0,38	0,51=	0,001	0,06	7,3
350399	0,39	0,51=	0,001	0,06	6,8
350401	0,38	0,51=	0,001	0,04	6,9
350402	0,39	0,51=	0,001	0,04	6,8
350403	0,38	0,51=	0,001	0,04	6,9
350404	0,39	0,51=	0,000	0,04	6,8
350405	0,39	0,51=	0,001	0,05	6,9

C95 Ladle treatment

ITEM NO.: 01-05, 07-08
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

A04	DH Manufacturer's mark	Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 17.09.10	BM
		QM-System: Certification as per ISO 9001				



DILLINGER HÜTTE

Edixuseur/union, siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10551-J1010-ER

DH Final receiver EDMONTON STEEL, EDMON A07.2 No.

B02/ Steel design SA516-70

B03 Any suppl. ASME-II-A: 07+A09

requirements DIL-HUE-2:R30-2010-01-31

SA20-S5

A10 Advice of dispatch No./
Date of dispatch

369429-17.09.10

A08/ Manufacturer's order/
A03 Certificate No.

357359-002

B01 Product

HOT ROLLED PLATES

Sheet

15/...

C95 Further information about ladle treatment

ITEM NO.: 01-05, 07-08

CALCIUM TREATED

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	CV1	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SM	TI
348840	11315	K1	0,187	0,376	1,17	0,009	0,0012	0,0059	0,040	0,012	0,052	0,034	0,000	0,001	0,001	0,003
350041	63959	K1	0,157	0,335	1,16	0,010	0,0011	0,0071	0,035	0,014	0,048	0,045	0,002	0,000	0,001	0,003
350041	63961	K1	0,157	0,340	1,16	0,011	0,0010	0,0074	0,036	0,013	0,047	0,045	0,002	0,000	0,001	0,003
350399	21322	K1	0,175	0,367	1,17	0,009	0,0012	0,0072	0,046	0,015	0,055	0,042	0,000	0,000	0,001	0,003
350401	15608	K1	0,165	0,361	1,16	0,008	0,0015	0,0079	0,035	0,010	0,054	0,026	0,001	0,000	0,001	0,001
350402	14890	K1	0,168	0,389	1,17	0,010	0,0011	0,0065	0,036	0,011	0,065	0,027	0,001	0,001	0,001	0,003
350402	15169	K1	0,172	0,376	1,15	0,009	0,0010	0,0068	0,036	0,010	0,061	0,027	0,001	0,000	0,000	0,002
350403	11979	K1	0,171	0,367	1,16	0,009	0,0012	0,0067	0,042	0,007	0,063	0,032	0,001	0,000	0,000	0,002
350403	13199	K1	0,170	0,385	1,17	0,010	0,0017	0,0067	0,037	0,010	0,064	0,027	0,001	0,000	0,000	0,003
350404	11097	K1	0,164	0,375	1,17	0,009	0,0015	0,0064	0,042	0,008	0,063	0,031	0,001	0,000	0,000	0,003
350404	11955	K1	0,172	0,366	1,15	0,008	0,0012	0,0062	0,041	0,008	0,062	0,031	0,001	0,000	0,001	0,002
350405	05031	K1	0,173	0,376	1,17	0,008	0,0014	0,0059	0,041	0,010	0,062	0,033	0,000	0,001	0,001	0,002
350405	05063	K1	0,173	0,374	1,17	0,009	0,0013	0,0064	0,044	0,008	0,068	0,031	0,000	0,000	0,000	0,002
350405	39946	K1	0,175	0,370	1,16	0,008	0,0014	0,0061	0,037	0,010	0,055	0,035	0,000	0,000	0,001	0,003
350405	39965	K1	0,173	0,369	1,17	0,009	0,0012	0,0061	0,037	0,009	0,054	0,036	0,000	0,000	0,000	0,003

2012/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. BALDAUF
Test House Manager

Inspector's stamp Date 17.09.10

BM

1



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	16/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DH	Final receiver	HOT ROLLED PLATES		
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-II-A:07+A09				
requirements DIL-HUE-2:R30-2010-01-31				
		SA20-S5		

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01				
		C	CA	AL-T		
348840	11315	K1	0,0002	0,0015	0,033	
350041	63959	K1	0,0002	0,0016	0,033	
350041	63961	K1	0,0003	0,0013	0,033	
350399	21322	K1	0,0003	0,0017	0,036	
350401	15608	K1	0,0002	0,0019	0,045	
350402	14890	K1	0,0002	0,0017	0,032	
350402	15169	K1	0,0002	0,0015	0,035	
350403	11979	K1	0,0000	0,0017	0,036	
350403	13199	K1	0,0003	0,0014	0,033	
350404	11097	K1	0,0002	0,0016	0,035	
350404	11955	K1	0,0002	0,0016	0,037	
350405	05031	K1	0,0002	0,0018	0,031	
350405	05063	K1	0,0000	0,0016	0,032	
350405	39946	K1	0,0003	0,0015	0,035	
350405	39965	K1	0,0003	0,0014	0,035	

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01				
		K1	FO-02=	0,40	FO-51=	0,001
348840	11315	K1	FO-02=	0,40	FO-51=	0,001
350041	63959	K1	FO-02=	0,37	FO-51=	0,002
350041	63961	K1	FO-02=	0,37	FO-51=	0,002
350399	21322	K1	FO-02=	0,39	FO-51=	0,000
350401	15608	K1	FO-02=	0,37	FO-51=	0,001
350402	14890	K1	FO-02=	0,38	FO-51=	0,002
350402	15169	K1	FO-02=	0,38	FO-51=	0,001

A04	2017/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 17.09.10	BM 1
QM-System: Certification as per ISO 9001				
D H Manufacturer's mark				
B. BALDAUF Test House Manager				



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		17
NATURAL TEST REPORT (MTR)		A07.1 No. ED10551-JL010-ER		B01 Product		
A05 Established inspecting body		A08 Purchaser		EDMONTON STEEL, EDMON		
DH		Final receiver		EDMONTON STEEL, EDMON		
B02 Steel design.		SA516-70		SA20-S5		
B03 Any suppl. requirements		ASME-II-A:07+A09				
DIL-HUE-2:R30-2010-01-31						
C94 Product analysis Carbon equivalent / Alloying restrictions						
B07.2 Heat	B07.1 Test No.	C01				
350403-11979	K1	FO-02=	0,38	FO-51=	0,001	FO-55=
350403-13199	K1	FO-02=	0,38	FO-51=	0,001	FO-55=
350404-11097	K1	FO-02=	0,37	FO-51=	0,001	FO-55=
350404-11955	K1	FO-02=	0,38	FO-51=	0,001	FO-55=
350405-05031	K1	FO-02=	0,38	FO-51=	0,001	FO-55=
350405-05063	K1	FO-02=	0,38	FO-51=	0,000	FO-55=
350405-39946	K1	FO-02=	0,38	FO-51=	0,000	FO-55=
350405-39965	K1	FO-02=	0,38	FO-51=	0,000	FO-55=
C94 Carbon equivalent formula / Alloying restrictions						
FO-02 = C + (MN/6) + (CR+MO+V) / 5 + (NI+CU) / 15						
FO-51 = V + NB						
FO-55 = CU+MO+NI+CR						
FO-78 = CR+MO						
FO-91 = MN/C						
D01 Marking and identification, surface appearance, shape and dimensional properties						
ITEM NO.: 01-05,07-08						
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS						
SURFACE AS PER ASME-SA20						
THICKNESS AS PER ASME-SA20						
LENGTH AND WIDTH AS PER ASME-SA20						
FLATNESS AS PER 1/2-ASME-SA20						
A04		201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01
D/H Manufacturer's mark		B. BALDAUF Test House Manager		AHB Inspector's stamp		BM
QM-System: Certification as per ISO 9001		Date 17.09.10				

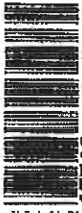




DILLINGER HÜTTE

Einheiten siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No./ Date of dispatch 369817-21.09.10	A01 Manufacturer's order/ A03 Certificate No. 357359-003	Sheet 1/...
A05 Established inspecting body DH		901 Product HOT ROLLED PLATES		
B02/ Steel design. SA516-70 B03 Any suppl. ASME-II-A-07+A09 requirements DILL-HUE-2:R30-2010-01-31		A07.1 No. ED10551-J1010-ER A07.2 No. EDMONTON STEEL, EDMONTON SA20-S5		



15713

B01-B99 Description of the product.

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		348840	11315-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		350399	21306-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		350405	39694-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		350405	39715-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		350405	39715-03	
**	5				23250				
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N		350405	39714-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N		350405	39714-03	
**	2				11160				
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12280-01	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N		350402	14890-01	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N		350402	14890-02	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N		350403	14124-01	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N		350403	14124-02	
**	4				32416				
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N		350402	15168-01	
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N		350402	15168-02	
**	2				14266				
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N		350404	06356-01	
08	1	1,1250 x	178,00000 x	356,00000 x	9171 N		350041	63959-01	
***	15				102732				

A04	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp B. BALDAUF Test House Manager	Date 22.09.10	PP 1
-----	--	--	--	---	---------------	------





DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369817-21.09.10		357359-003		2/-	
MATERIAL TEST REPORT (MTR)				B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body DH		Add Purchaser EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER			
		Final receiver EDMONTON STEEL, EDMON		A07.2 No.			
B02 Steel design. SA516-70							
B03 Any suppl. ASME-II-A:07+A09							
requirements DIL-HUE-2:R30-2010-01-31							

B04 Product delivery condition

ITEM NO.: 01-08

N: HT: 1670 GR.F +36 -27 GR.F.

SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)

COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-08

STEEL DESIGNATION SA516 70 MTLV SA516 60 MTLV

HEAT NO. / TRADEMARK / ROLLED PLATE NO. -TEST NO. / INSPECTOR'S STAMP

B07-B99 Further information about the product

ITEM NO.: 01-08

THICKNESS REDUCTION RATIO $\geq 3,0$ IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 B07.2 Item Heat No.	B07.1 Reliance/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. OR.F	C10 C11 KSI RP02	C12 RM	C13 A %	C14-C15 LO-8IN
01 348840	11315		K1 Q	RT 51,3	77,6	27	
01 350399	21306		K1 Q	RT 50,5	75,8	26	
01 350405	39694		K1 Q	RT 50,5	75,0	28	
01 350405	39715		K1 Q	RT 50,2	75,4	31	
02 350405	39714		K1 Q	RT 49,6	75,3	26	
04 350403	12280		K1 Q	RT 49,9	74,1	27	
05 350402	14890		K1 Q	RT 49,7	74,5	29	
05 350403	14124		K1 Q	RT 49,0	75,0	26	
06 350402	15168		K1 Q	RT 49,6	74,1	30	

A04 Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. Baldauf

B. BALDAUF
Test House Manager

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp Date 22.09.10

pp 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369817-21.09.10	357359-003	3/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	A07.1 No. ED10551-J1010-ER		
DE	Final receiver	A07.2 No.		
B02/ Steel design. SA516-70		B01 Product		
B03 Any suppl. ASME-II-A:07+A09 requirements DIL-HUE-2:R30-2010-01-31		HOT ROLLED PLATES		

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GRF	C18 C11 KSI	C13 C52 RM	A %	C14-C15
07	350404	06356	K1 Q RT	49,3	75,0	28	
08	350041	63959	K1 Q RT	49,2	72,4	31	

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GRF	C18 C11 KSI	C13 C52 RM	A %	C14-C15
01	348840	11315	K1 Q RT	49,3	75,0	28	
01	350399	21306	K1 Q RT	49,3	75,0	28	
01	350405	39694	K1 Q RT	49,3	75,0	28	
01	350405	39715	K1 Q RT	49,3	75,0	28	
02	350405	39714	K1 Q RT	49,3	75,0	28	
04	350403	12280	K1 Q RT	49,3	75,0	28	
05	350402	14890	K1 Q RT	49,3	75,0	28	
05	350403	14124	K1 Q RT	49,3	75,0	28	
06	350402	15168	K1 Q RT	49,3	75,0	28	
07	350404	06356	K1 Q RT	49,3	75,0	28	
08	350041	63959	K1 Q RT	49,3	75,0	28	

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GRF	C18 C11 KSI	C13 C52 RM	A %	C14-C15
01	348840	11315	K1 Q RT	49,3	75,0	28	
01	350399	21306	K1 Q RT	49,3	75,0	28	
01	350405	39694	K1 Q RT	49,3	75,0	28	

A04		Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		A01	
D&H Manufacturer's mark		B. BALDAUF Test House Manager		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	
		Inspector's stamp		Date 22.09.10	
				PP 1	



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No/ Date of dispatch 369817-21.09.10	A08/ Manufacturer's order/ A03 Certificate No. 357359-003	Sheet 4/...
A05 Established inspecting body DH		B01 Product HOT ROLLED PLATES		
B02 Steel design SA516-70		A07.1 No. ED10551-J1010-ER		
B03 Any suppl. requirements		A07.2 No. SA20-S5		
ASME-II-A:07+A09 DIL-HUE-2-R30-2010-01-31		EDMONTON STEEL, EDMON EDMONTON STEEL, EDMON		

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rel. plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C03 C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 AV AV-FILBF	C42 Individual values	C43 Mean value
01	350405	39715		K1	LV	-51		CHP-V			AV 104	194	152
02	350405	39714		K1	LV	-51		CHP-V			AV 144	201	116
04	350403	12280		K1	LV	-51		CHP-V			AV 109	187	195
05	350402	14890		K1	LV	-51		CHP-V			AV 125	111	121
05	350403	14124		K1	LV	-51		CHP-V			AV 136	128	143
06	350402	15168		K1	LV	-51		CHP-V			AV 111	94	117
07	350404	06356		K1	LV	-51		CHP-V			AV 131	129	145
08	350041	63959		K1	LV	-51		CHP-V			AV 238	236	240

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
348840	Y	0.184	0.384	1.18	0.010	0.0011	0.0063	0.044	0.010	0.053	0.030	0.001	0.000	0.001	0.003
350041	Y	0.163	0.344	1.19	0.012	0.0009	0.0071	0.037	0.014	0.048	0.045	0.001	0.000	0.001	0.003
350399	Y	0.176	0.376	1.19	0.010	0.0011	0.0075	0.046	0.015	0.055	0.049	0.001	0.000	0.001	0.003
350402	Y	0.174	0.386	1.18	0.010	0.0012	0.0075	0.037	0.011	0.064	0.027	0.001	0.000	0.001	0.003
350403	Y	0.170	0.373	1.17	0.009	0.0010	0.0063	0.042	0.008	0.063	0.031	0.001	0.000	0.001	0.002
350404	Y	0.174	0.376	1.19	0.009	0.0009	0.0071	0.044	0.008	0.067	0.031	0.000	0.000	0.001	0.002
350405	Y	0.172	0.381	1.19	0.009	0.0010	0.0059	0.040	0.010	0.057	0.035	0.001	0.000	0.001	0.003

A04	D/H Manufacturer's mark	Z011202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
B. BALDAUF Test House Manager		Inspector's stamp Date 22.09.10		PP	1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+AL:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No/ Date of dispatch 369817-21.09.10	A08/ Manufacturer's order/ A03 Certificate No. 357359-003	Sheet 5/...
A05 Established inspecting body DIE		A01 Product HOT ROLLED PLATES		
B02 Steel design. SA516-70		A07.1 No. ED10551-J1010-ER		
B03 Any suppl. requirements ASME-II-A:07+A09 DIL-HUE-2:R30-2010-01-31		A07.2 No. SA20-S5		

C70-C99 Chemical composition % - Heat analysis

	C70	B	CA	AL-T
B07.2 Heat	Y	0,0003	0,0015	0,035
348840	Y	0,0004	0,0015	0,033
350041	Y	0,0002	0,0015	0,035
350399	Y	0,0002	0,0013	0,033
350402	Y	0,0001	0,0014	0,034
350403	Y	0,0003	0,0014	0,033
350404	Y	0,0003	0,0014	0,035

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	FO-02=	0,40	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,4
348840	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14	FO-78=	0,06	FO-91=	7,3
350041	FO-02=	0,39	FO-51=	0,001	FO-55=	0,17	FO-78=	0,06	FO-91=	6,8
350399	FO-02=	0,39	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,8
350402	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,9
350403	FO-02=	0,39	FO-51=	0,000	FO-55=	0,15	FO-78=	0,04	FO-91=	6,8
350404	FO-02=	0,39	FO-51=	0,001	FO-55=	0,14	FO-78=	0,05	FO-91=	6,9

C95 Ladle treatment

ITEM NO.: 01-08

HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C95 Further information about ladle treatment

ITEM NO.: 01-08

CALCIUM TREATED

A04	2017/2022/2023 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001			AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 22.09.10	PP 1
-----	---	--	--	--	------------------------------------	------



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1-B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369817-21.09.10	357359-003	6/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DH	EDMONTON STEEL, EDMON	HOT ROLLED PLATES		
B02/ Steel design	SA516-70			
B03 Any appl. requirements	ASME-II-A-07+A09 DIL-HUE-2-R30-2010-01-31			

C70-C99 Chemical composition % - Product analysis.

B07.2 Heat	B07.1 Test No.	C01														Ti
		C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN		
348840	11315	0,187	0,376	1,17	0,009	0,0012	0,0059	0,040	0,012	0,052	0,034	0,000	0,001	0,001	0,003	
350041	63959	0,157	0,335	1,16	0,010	0,0011	0,0071	0,035	0,014	0,048	0,045	0,002	0,000	0,001	0,003	
350041	63961	0,157	0,340	1,16	0,011	0,0010	0,0074	0,036	0,013	0,047	0,045	0,002	0,000	0,001	0,003	
350399	21322	0,175	0,367	1,17	0,009	0,0012	0,0072	0,046	0,015	0,055	0,042	0,000	0,000	0,001	0,003	
350402	14890	0,168	0,389	1,17	0,010	0,0011	0,0065	0,036	0,011	0,065	0,027	0,001	0,001	0,001	0,003	
350402	15169	0,172	0,376	1,15	0,009	0,0010	0,0068	0,035	0,010	0,061	0,027	0,001	0,000	0,000	0,002	
350403	11979	0,171	0,367	1,16	0,009	0,0012	0,0067	0,042	0,007	0,063	0,032	0,001	0,000	0,000	0,002	
350403	13199	0,170	0,385	1,17	0,010	0,0017	0,0067	0,037	0,010	0,064	0,027	0,001	0,000	0,000	0,003	
350404	11097	0,164	0,375	1,17	0,009	0,0015	0,0064	0,042	0,008	0,063	0,031	0,001	0,000	0,001	0,002	
350404	11955	0,172	0,366	1,15	0,008	0,0012	0,0062	0,041	0,008	0,062	0,031	0,001	0,000	0,001	0,002	
350405	05031	0,173	0,376	1,17	0,008	0,0014	0,0059	0,041	0,010	0,062	0,033	0,000	0,001	0,001	0,002	
350405	05063	0,173	0,374	1,17	0,009	0,0013	0,0064	0,044	0,008	0,068	0,031	0,000	0,000	0,000	0,002	
350405	39946	0,175	0,370	1,16	0,008	0,0014	0,0061	0,037	0,010	0,055	0,035	0,000	0,000	0,001	0,003	
350405	39965	0,173	0,369	1,17	0,009	0,0012	0,0061	0,037	0,009	0,054	0,036	0,000	0,000	0,000	0,003	

A04		Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	
D/H Manufacturer's mark		B. BALDAUF Test House Manager		Inspector's stamp Date 22.02.10 PP 1	
QM-System: Certification as per ISO 9001					



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Active of dispatch No./ Date of dispatch 369817-21.09.10	A08 Manufacturer's order/ A03 Certificate No. 357359-003	Sheet 7/...
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991-A1:1995 + AS PER ISO 10474:1991				
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMONTON	A07.1 No. ED10551-J1010-ER		
B02/ Steel design. SA516-70	Final receiver EDMONTON STEEL, EDMONTON	A07.2 No. SA20-S5		
B03 Any suppl. requirements	ASME-III-A:07+A09 DIL-HUE-2:R30-2010-01-31			

C70-C99 Chemical composition % - Product analysis.

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
350404	11955	K1	0,0002	0,0016	0,037
350405	05031	K1	0,0002	0,0018	0,031
350405	05063	K1	0,0000	0,0016	0,032
350405	39946	K1	0,0003	0,0015	0,035
350405	39965	K1	0,0003	0,0014	0,035

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01	FO-02=	FO-51=	FO-55=
348840	11315	K1	FO-02= 0,40	FO-51= 0,001	FO-55= 0,14
350041	63959	K1	FO-02= 0,37	FO-51= 0,002	FO-55= 0,14
350041	63961	K1	FO-02= 0,37	FO-51= 0,002	FO-55= 0,14
350399	21322	K1	FO-02= 0,39	FO-51= 0,000	FO-55= 0,16
350402	14890	K1	FO-02= 0,38	FO-51= 0,002	FO-55= 0,14
350402	15169	K1	FO-02= 0,38	FO-51= 0,001	FO-55= 0,13
350403	11979	K1	FO-02= 0,38	FO-51= 0,001	FO-55= 0,14
350403	13199	K1	FO-02= 0,38	FO-51= 0,001	FO-55= 0,14
350404	11097	K1	FO-02= 0,37	FO-51= 0,001	FO-55= 0,14
350404	11955	K1	FO-02= 0,38	FO-51= 0,001	FO-55= 0,14
350405	05031	K1	FO-02= 0,38	FO-51= 0,001	FO-55= 0,15
350405	05063	K1	FO-02= 0,38	FO-51= 0,000	FO-55= 0,15
350405	39946	K1	FO-02= 0,38	FO-51= 0,000	FO-55= 0,14
350405	39965	K1	FO-02= 0,38	FO-51= 0,000	FO-55= 0,14

A04	Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
	QM-System: Certification as per ISO 9001		
Manufacturer's mark	B. BALDAUF Test House Manager	Inspector's stamp	pp 1
		Date 22.09.10	



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Action of dispatch No/ Date of dispatch 369817-21.09.10	A08/ Manufacturer's order/ A03 Certificate No. 357359-003	Sheet 8
A05 Established inspecting body DH A06 Purchaser EDMONTON STEEL, EDMONTON A07.1 No. ED10551-J1010-ER Final receiver EDMONTON STEEL, EDMONTON A07.2 No. SA20-S5				
B02/ Steel design. SA516-70 B03 Any suppl. ASME-II-A:07+A09 requirements DIL-HOE-2:R30-2010-01-31				
C94 Carbon equivalent formula / Alloying restrictions FO-02 = C+(MN/6)+(CR+MO+V)/5+(NI+CU)/15 FO-51 = V +NB FO-55 = CU+MO+NI+CR FO-78 = CR+MO FO-91 = MN/C				
D01 Marking and identification; surface appearance, shape and dimensional properties ITEM NO.: 01-08 RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS SURFACE AS PER ASME-SA20 THICKNESS AS PER ASME-SA20 LENGTH AND WIDTH AS PER ASME-SA20 FLATNESS AS PER 1/2-ASME-SA20				
				
A04 Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001		A01 AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department Inspector's stamp Date 22.09.10 PP 1		



MILL TEST CERTIFICATE



1581

ASME SA516-70N: 2007 ED

DP3-2-101129-057-001

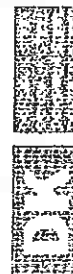
DP3-2-101129-057-001

* Specimen No.: a-Tension, c-Impact
 * Position: 1-Top, M-Middle, B-Bottom
 * Division: 1-Ladle Analysis, P-Product Analysis
 * GI (Sub Size, Real Value, mm): Black, Full Size, 1-7.5-10, 2-5.0-10
 * GI (Sub Size Length, mm): 1-200, 2-100, 3-50, 4-70, 5-50, 6-5.65(A,
 7-5d, 8-4d, 9-8d)
 * T(S) Al: Total(Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Chief of Quality Control Team

Page: 1/12



ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED
 Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA
 Certificate No. : DP3-2-101129-057-002
 Date of issue : Nov. 29, 2010

Dimension Unit Inch: ", mm: Space	Product No	Quant ity	Weight kg	Heat No	P o s i t i o n	Chemical Composition																		Remarks					
						Tensile Test			Impact Test			D																	
						Q _t	Y _P	T _S	EL	S	U	V	ft	lb	C	Si	Mn	P	S	Cr	Ni	Cu	Mo		Nb	Ti	V	T _{Al}	S _{Al}
9.52*245*12192 0.375*98.5*480** *Specimen No: DP02072804-a, DP02072804-c ** Normalized: 1570°F, 23min	A083298-01		2,235	JK586054	T	52	79	23.1	1:147 2:137 3:160 A:148					16	37	143	20	4	30	1	3	2	1	1	2		34	408	
Sub Total (10)		1	2,235																										
9.52*305*12192 0.375*120.5*480** *Specimen No: DP02071803-a, DP02071803-c ** Normalized: 1570°F, 23min	A084297-01,02		2,790	JK586052	T	53	79	24.1	1: 96 2: 89 3: 94 A: 93					16	37	143	17	3	20	1	2	1	1	2		31	405		
Sub Total (20)		2	5,580																										
9.52*305*12192 0.375*120.5*480** *Specimen No: DP02071803-a, DP02071803-c ** Normalized: 1570°F, 23min	A084295-01,02		2,790	JK586053	T	53	78	22.1	1: 87 2:106 3:132 A:109					16	37	143	19	4	30	1	2	1	1	2		39	407		
Sub Total (20)		2	5,580																										
We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.																								* Specimen No. : a-Tension, c-Impact * Position : -Top, M-Middle, B-Bottom * Division : L-Ladles Analysis, P-Product Analysis * Sub(S)ub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10 * G(L) Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-55*4, 7-5d, 8-4d, 9-3d * T(S)Al : Total(Soluble) Al					
When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.																													

[Signature]

Surveyor to: _____ Surveyor to: _____
 Daejin Works, 400 Hanjin-r1, Songpa-myeon, Dangjin-gun, Chungcheongnam-do, 340-823, Korea
 Chief of Quality Control Team
 Page: 2/12



ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL AMERICA
 Certificate No. : DP3-2-101129-057-003
 Date of Issue : Nov. 29, 2010

Nov. 23, 2010

Page 1 of 1

Page 1 of 1

Page 1 of 1

Dimension Unit Inch: mm: Space	Product No	Quantity	Weight kg	Heat No	Chemical Composition																			Remarks		
					Tensile Test			Impact Test																		
					Y _T	T _S	EL	S	U	V	Notch	F ₁	F ₂	F ₃	F ₄	F ₅	F ₆	F ₇	F ₈	F ₉	F ₁₀	F ₁₁	F ₁₂			
9.52*3051*12192 0.375 X120.5"X480" *Specimen No : DP2204501-a ** Normalized: 1570°F, 25min	A084256-02.03		2,780	JK566054	1	51	78	23	1	1:143	16	37	143	20	4	30	1	3	2	1	1	2	34	403		
12.70*2451*12192 0.5"X96.5"X480" *Specimen No : DP2204501-a ** Normalized: 1570°F, 25min	Sub Total (20)	2	5,580							2:122																
12.70*2451*12192 0.5"X96.5"X480" *Specimen No : DP2204501-a ** Normalized: 1570°F, 25min	A087507-01.02.03		2,950	J1775888	1	50	74	24		1:81	16	36	143	16	8	20	1	1	1	1	3	34	404			
12.70*3051*12192 0.5"X120.5"X480" *Specimen No : DP2204501-a ** Normalized: 1570°F, 25min	Sub Total (30)	3	8,940							2:141																
12.70*3051*12192 0.5"X120.5"X480" *Specimen No : DP2204501-a ** Normalized: 1570°F, 25min	A083738-01.02		3,721	JK568051	1	49	78	23		1:133	16	39	143	16	4	20	1	2	1	1	2	38	405			
12.70*3051*12192 0.5"X120.5"X480" *Specimen No : DP2204501-a ** Normalized: 1570°F, 25min	Sub Total (40)	2	7,442							2:145																

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

Tensile Test Direction-Transverse
Impact Test Direction-Longitudinal
Ceq = C+Mn/6+Ni/15+Cu/15+V/10
Supply Condition - Normalized
Chemical Composition Unit(%) : 2-x100, 3-x1000, 4-x10000

* Specimen No. : a-Tension, C-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Size(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5-10, 2-5.0-10, 3-7.5-10, 4-7.5-10, 5-5.65-10, 6-5.65-10, 7-5.0, 8-4.0, 9-3.0
* T(S):Al : Total(Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

We hereby certify that the material has been made by Basic oxygen process (fully killed steel, fine grain practice) and satisfactory tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

Specimen No. : a-Tension, c-Impact
 Position : T-Top, M-Middle, B-Bottom
 Division : L-Ladle Analysis, P-Product Analysis
 SubSize Size, Real Value, mm : Blank-Full Size, 1-7.5-10, 2-5.0-10
 GI (Gauge Length, mm) : 1-200, 2-100, 3-50, 4-25, 5-10, 6-5.65-A,
 7-5d, 8-4d, 9-3d
 T(SAI) : Total (Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

[Signature]

Surveyor to : _____ Surveyor to : _____
 Dangjin Works, 400 Hanjin-ro, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea
 Chief of Quality Control Team
 Page : 3/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N; 2007 ED
 Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA
 Certificate No. : DP3-2-101129-057-004
 Date of Issue : Nov. 29, 2010

Dimension Unit inch: * mm: Space	Product No	Quant- ity	Weight kg	Heat No	Chemical Composition															Remarks									
					Tensile Test			Impact Test			D																		
					Y _P	T _S	EL	S	U	V	Notch	ft-lbf	C	Si	Mn	P	S	Cr	Ni		Cu	Mo	Nb	Ti	V	T.Ai	S.Ai	Ceq	
					ksi	%																							
12.70*3051*12192 0.5"x120.5"x480" *Specimen No : DP02072807-a, DP02072807-c ** Normalized: 1670 F, 28min	A084290-01.02		3,721	JK566052	1	52	77	24				1: 77 2: 120 3: 75 A: 50	16	37	143	17	3	20	1	2	1	1	2	31	3	3	405		
Sub Total (40)																													
12.70*3051*12192 0.5"x120.5"x480" *Specimen No : DP0205505-a, DP0205505-c ** Normalized: 1670 F, 28min	A084288-01.02	2	7,442	JK566054	1	52	78	23				1: 70 2: 81 3: 70 A: 73	16	37	143	20	4	30	1	3	2	1	1	2	34	3	3	408	
Sub Total (40)																													
12.70*3051*12192 0.5"x120.5"x480" *Specimen No : DP0205505-a, DP0205505-c ** Normalized: 1670 F, 28min	A084288-01.02	2	7,442	JK566054	1	54	78	23				1: 127 2: 146 3: 158 A: 143	16	37	143	20	4	30	1	3	2	1	1	2	34	3	3	408	
Sub Total (40)																													

* Tensile Test Direction- Transverse * Impact Test Direction- Longitudinal * Ceq = C+Mn/6+(Ni+Cr)/16+(Cr+Mo+V)/5 * Supply Condition - Normalized * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000	We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.
When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.	

We hereby certify that the material has been made by Basic oxygen process (fully killed steel, fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to : _____ Surveyor to : _____ Surveyor to : _____
 Dangjin Works, 490 Hanjin-ro, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

Chief of Quality Control Team
 Page : 4/12

ORIGINAL

MILL TEST CERTIFICATE



Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-005
 Date of issue : Nov. 29, 2010

Dimension Unit inch, mm, Space	Product No	Quant- ity	Weight kg	Heat No	Chemical Composition																			Remarks			
					Tensile Test				Impact Test			P S i o n															
					Y _P	T _S	EL	S	U	V Notch	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T,Al		S,Al	Ceq	
15.88*3061*12192 0.625*120.5*1460 *Specimen No : DP20057501-a, DP20057501-b ** Normalized: 1670°F, 32min	A084042-01		4,652	J2752178	T 1	49	74	24		-50 °F V Notch ft-lbf	1: 79 2: 75 3: 106 A: 87	16	39	140	16	7	20	1	1	1	1	1	4	31	3	400	
Sub Total (50)		1	4,652																								
15.88*3061*12192 0.625*120.5*1460 *Specimen No : DP20057501-a, DP20057501-b ** Normalized: 1670°F, 32min	A084041-01		4,652	J2753135	T 1	47	73	24		-50 °F V Notch ft-lbf	1: 96 2: 61 3: 91 A: 83	15	37	143	17	11	20	1	1	1	1	1	3	31	3	394	
Sub Total (50)		1	4,652																								
19.05*3061*12192 0.75*120.5*1460 *Specimen No : DP20057501-a, DP20057501-b ** Normalized: 1670°F, 32min	A084024-01,02		5,580	J2752178	T 1	50	75	25		-50 °F V Notch ft-lbf	1: 92 2: 50 3: 80 A: 74	16	39	140	16	7	20	1	1	1	1	1	4	31	3	400	
Sub Total (50)		2	11,160																								
We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.																								* Tensile Test Direction- Transverse * Impact Test Direction- Longitudinal * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5 * Supply Condition - Normalized * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x100000			
When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.																								* Specimen No.: a-Tension, C-Impact * Position: T-Top, M-Middle, B-Bottom * Division: L-Ladle Analysis, P-Product Analysis * Sub(S)ub Size, Real Value, mm): 2-Blank-Full Size, 1-7.5*10, 2-5.0*10 * G(L)auge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65-A, 7-5d, 8-4d, 9-8d * T(S)Al: Total(Soluble) Al			

Surveyor to : _____ Surveyor to : _____ Surveyor to : _____

Chief of Quality Control Team :

Page : 5/12

Dangin Works, 400 Hanjin-ri, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

ORIGINAL

MILL TEST CERTIFICATE



Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N; 2007 ED

Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-006
 Date of issue : Nov. 29, 2010

Dimension Unit inch : " mm: Space	Product No	Quant ity	Weight kg	Heat No	Chemical Composition														Remarks										
					Tensile Test				Impact Test																				
					P o s i t i o n	Y P	T S	EL	S i g n	U 1	U 2	F	Y N o t c h	C	Si	Mn	P	S		Cr	Ni	Cu	Mo	Nb	Ti	V	T-Al	S-Al	Deq
ksi	%	%	ft-lbf																										
19.05x3051x12192 0.75"X120.5"X480" *Specimen No :DP20071401-a, DP20071401-c ** Normalized:1570°F, 37min	A084063-01.02		5,580	JK467025	T 1	54	78	25					1:123 L 2: 96 3: 94 A:104	16	38	144	17	4	20	1	2	1	1	2			35	407	
Sub Total (60)																													
19.05x3051x12192 0.75"X120.5"X480" *Specimen No :DP20072805-a, DP20072805-c ** Normalized:1570°F, 37min	A084062-01.02	2	11,160	JK566052	T 1	53	77	24					1:120 L 2:133 3:134 A:129	16	37	143	17	3	20	1	2	1	1	2			31	405	
Sub Total (60)																													
19.05x3051x12192 0.75"X120.5"X480" *Specimen No :DP20065503-a, DP20065503-c ** Normalized:1570°F, 37min	A084061-01.02	2	11,160	JK566054	T 1	53	77	27					1:126 L 2:101 3:125 A:117	16	37	143	20	4	30	1	3	2	1	2			34	408	
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													
Sub Total (60)																													

* Tensile Test Direction-Transverse
 * Impact Test Direction-Longitudinal
 * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5
 * Supply Condition - Normalized
 * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Specimen No. : a-Tension, c-Impact
 * Position : T-Top, M-Middle, B-Bottom
 * Division : L-Ladle Analysis, P-Product Analysis
 * Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7 5x10, 2-5 0x10
 * GL(Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-35.5x4
 * 7-30, 8-40, 9-80
 * T(S)Al : Total(Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to

Surveyor to

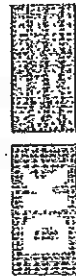
Surveyor to

Surveyor to

Chief of Quality Control Team

Dangjin Works, 400 Hanjin-ro, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

Page : 6/12



ORIGINAL

MILL TEST CERTIFICATE



Order No. : J10A400091
PO No. : LPP201009011
Commodity : STEEL PLATE
Specification : ASME SA516-70N: 2007 ED
Supplier : DONGKUK INTERNATIONAL, INC.
Customer : DAEWOO INTERNATIONAL AMERICA
Certificate No. : DP3-2-101129-057-007
Date of issue : Nov. 29, 2010

Dimension Unit inch * mm: Space	Product No	Quant ity	Weight kg	Heat No	Tensile Test					Impact Test			Chemical Composition													Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
					P T	S		D	Y	TS	EL	S	D	F	V	N	C	Si	Mn	P	S	Cr	Ni	Cu	Mo		Nb	Ti	V	Ta	Al	SAI	Ceq																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
						Q	TS																											EL	ft-lbf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
19.05*3061*12192 0.75*120.5*480 *Specimen No : DP2003504-a, DP2003504-c ** Normalized: 1670°F, 37in	A084034-01.02		5.580	JK56054	T	1	53	78	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to : _____ Surveyor to : _____
Dangjin Works, 400 Hanjin-il, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea
Chief of Quality Control Team : _____
Pages : 7/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N 2007 ED

Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101123-057-008
 Date of issue : Nov. 29, 2010

Dimension Unit Inch : mm Space	Product No	Quant ity	Weight kg	Heat No	Chemical Composition																		Remarks						
					Tensile Test				Impact Test																				
					P o s i t i o n		T e n s i l e		I m p a c t																				
					Y P	T S	E L	S	U	V	F	S	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb		Ti	V	T.Ai	S.Ai	Ceq	
ksi	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%					
22-22-3051-12192 0.875X120.5"X480" *Specimen No : DP20203903-a, DP20203903-c ** Normalized: 1670 F, 51min	A083493-01		6.512	33202300	T	1	48	76	27																				
	Sub Total (70)	1	6.512																										
22-22-3051-12192 0.875X120.5"X480" *Specimen No : DP20203901-a, DP20203901-c ** Normalized: 1670 F, 51min	A084056-01.02		6.512	JK586051	T	1	47	77	26																				
	Sub Total (70)	2	13.024																										
22-22-3051-12192 0.875X120.5"X480" *Specimen No : DP20203904-a, DP20203904-c ** Normalized: 1670 F, 51min	A084057-01.02		6.512	JK586052	T	1	51	76	27																				
	Sub Total (70)	2	13.024																										
We hereby certify that the material has been made by Basic oxygen process (Fully Killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.					* Specimen No. : a-Tension, c-Impact * Position : 1-Top, 11-Middle, B-Bottom * Division : 1-End Analysis, P-Product Analysis * Sub(S) Size, Real Value, mm) : Blank-Full Size, 1-7.5-10, 2-5.0-10 * G1 (Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65-4, 7-50, 8-40, 9-80 * T(S) AI : Total(Soluble) AI																								
* Tensile Test Direction- Transverse * Impact Test Direction- Longitudinal * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5 * Supply Condition - Normalized * Chemical Composition Unit(%) : 2-x100, 3-x1000, 4-x10000					When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.																								

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements (called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Tensile Test Direction-Transverse
 * Impact Test Direction-Longitudinal
 * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5
 * Supply Condition - Normalized
 * Chemical Composition Unit(%) : 2-x100, 3-x1000, 4-x10000

* Specimen No. : a-Tension, C-Impact
 * Position : 1-Top, M-Middle, B-Bottom
 * Division : L-Ladle Analysis, P-Product Analysis
 * Sub Size, Real Value, mm : Blank-Full Size, 1-7.5x10, 2-5.0x10, 3-5.0x10, 4-5.0x10, 5-5.0x10, 6-5.0x10, 7-5.0x10, 8-5.0x10, 9-5.0x10
 * T(S)AI : Total(Soluble) AI

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to : _____ Surveyor to : _____
 Chief of Quality Control Team : _____ Page : 8/12

Dangjin Works, 400 Hanjin-ro, Songpa-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No.: J10A400091
 PO No.: LPP201009011
 Commodity: STEEL PLATE
 Specification: ASME SA516-70N; 2007 ED.
 Supplier: DONGKUK INTERNATIONAL, INC.
 Customer: DAEWOO INTERNATIONAL AMERICA
 Certificate No.: DP3-2-101129-057-009
 Date of issue: Nov. 29, 2010

Dimension Unit Inch: " mm: Space	Product No	Quant ity	Weight kg	Heat No	Chemical Composition																		Remarks	
					Tensile Test			Impact Test	Chemical Composition															
					Y _P	T _S	EL		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T _{AI}	S _{AI}		Ceq
					ksi	%	ft-lbf	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
22.22x3051x12192 0.875"x120.5"x480" *Specimen No: DP2027801-a, DP2027801-c ** Normalized: 1570°F, 5min	A084058-01.02		5,512	JK566053	T 1	48	77	26	L 1:135 2:149 3:138 A:141	16	37	143	19	4	30	1	2	1	1	1	2	39	407	
25.40x2451x12192 1"x95.5"x480" *Specimen No: DP2027801-a, DP2027801-c ** Normalized: 1570°F, 5min	A083466-01	2	13,024	J1774078	T 1	49	74	27	L 1: 58 2: 92 3: 57 A: 66	16	37	143	20	8	20	1	1	1	1	1	4	30	405	
25.40x3051x12192 1"x120.5"x480" *Specimen No: DP2027801-a, DP2027801-c ** Normalized: 1570°F, 5min	A084052-01	1	5,958	JK566052	T 1	45	75	27	L 1:151 2:129 3:151 A:144	16	37	143	17	3	20	1	2	1	1	1	2	31	405	
	Sub Total (90)	1	7,439																					

* Tensile Test Direction-Transverse * Impact Test Direction-Longitudinal * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo)/5 * Supply Condition - Normalized * Chemical Composition Unit(%) : 2-x100, 3-x1000, 4-x10000	We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactory tested in accordance with above specification requirements called for by the above order. This mill-test certificate has been issued in compliance with EN 10204 3.1.	When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.
---	--	--

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to: _____ Surveyor to: _____ Chief of Quality Control Team: 

Dongjin Works, 400 Haejin-rd, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 340-823, Korea

Page: 9/12

ORIGINAL

MILL TEST CERTIFICATE



Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED.
 Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA
 Certificate No. : DP3-2-101129-057-010
 Date of Issue : Nov. 29, 2010

Dimension Unit inch", mm: Space	Product No	Quant ity	Weight kg	Heat No	Tensile Test		Impact Test		Chemical Composition											Remarks					
					Y _P	TS	EL	S	Y Notch	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb		Ti	V	T _{Al}	S _{Al}	O _{eq}
31.75x2664x12192 1.25"x97"x60" *Specimen No : DP02050001-a, DP02050001-c ** Normalized: 1570°F, 64min	A063461-01		7,488	J1774052	T 1	48	74	30	1: 78 2: 79 3: 109 A: 88	L	16	38	142	19	7	20	1	1	2	1	3	27		403	
31.75x2664x12192 1.25"x97"x60" *Specimen No : DP02033301-a, DP02033301-c ** Normalized: 1570°F, 64min	Sub Total (100) A053462-01	1	7,488	J3202300	T 1	48	74	28	1: 16 2: 13 3: 30 A: 13	L	16	38	143	17	6	20	1	1	1	1	3	33		404	
31.75x2664x12192 1.25"x97"x60" *Specimen No : DP02020401-a, DP02020401-c ** Normalized: 1570°F, 64min	Sub Total (100) A065023-01	1	7,488	JFD6307	T 1	49	75	27	1:100 2:121 3:119 A:113	L	17	34	145	19	7	20	1	2	1	1	2		47	418	
	Sub Total (100)	1	7,488																						

* Tensile Test Direction- Transverse

* Impact Test Direction- Longitudinal

* Ceq = C+Mn/5 + (Ni+Cu)/15 + (Cr+Mo+V)/5

* Supply Condition - Normalized

* Chemical Composition Unit(%) : 2-x100, 3-x1000, 4-x10000

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Specimen No. : a-Tension, C-Impact

* Position : 1-Top, M-Middle, B-Bottom

* Division : L-Ladle Analysis, P-Product Analysis

* Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5-10, 2-5.0-10

* GL(Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65-1A, 7-50, 8-44, 9-8d

* T(S),A : Total(Soluble) / Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

[Signature]

Surveyor to : _____ Surveyor to : _____ Chief of Quality Control Team : _____
 Dangjin Works, 400 Hangeon-ro, Songpa-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea
 Page : 10/12



ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED
 Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL-AMERICA
 Certificate No. : DP3-2-101129-057-011
 Date of Issue : Nov. 29, 2010

Dimension Unit Inch: " mm Space	Product No	Quantity	Weight kg	Heat No	Chemical Composition														Remarks									
					Tensile Test				Impact Test				Chemical Composition															
					YS	TS	EL	S	S	-50°F	S	V Notch	C	Si	Mn	P	S	Cr		Ni	Cu	Mo	Nb	Ti	V	T.Ai	S.Ai	Ceq
					ksi	%	%	%	%	ft-lbf	%	%	%	%	%	%	%	%	%	%	%	%	%	%				
31.75*2454*12192 1.25"X97"X480" *Specimen No : DP02106802-a, DP02106802-c ** Normalized: 1670°F, 64min	A085029-01		7.488	JFD8311	T 1	48	74	28			L 1: 95 2:137 3:109 A:114	15	36	144	20	5	30	1	2	1	1	1	2	3	3	3	3	3
Sub Total (100)		1	7.488																									
31.75*3073*12192 1.25"X121"X480" *Specimen No : DP02040203-a, DP02040203-c ** Normalized: 1670°F, 64min	A083489-01		9.340	J1774078	T 1	47	74	28			L 1: 90 2: 58 3: 59 A: 68	16	37	143	20	8	20	1	1	1	1	1	4	30			405	
Sub Total (110)		1	9.340																									
31.75*3073*12192 1.25"X121"X480" *Specimen No : DP02047501-a, DP02047501-c ** Normalized: 1670°F, 64min	A083480-01		9.340	J2751834	T 1	47	73	27			L 1: 92 2: 62 3: 57 A: 73	16	39	144	15	9	20	1	1	1	1	1	3	28			405	
Sub Total (110)		1	9.340																									

* Tensile Test Direction-Transverse * Impact Test Direction-Longitudinal * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5 * Supply Condition: Normalized * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000	We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.	* Specimen No.: a-Tension, b-Impact * Position: 1-Top, M-Middle * Division: L-Longitudinal, P-Product Analysis * Sub(S) Sub Size, Real Value, mm): Blank-End Size, 1-7.5-10, 2-5.0-10 * GI(Gauge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-3.65xLA * T(S)AI: Total(Soluble) AI
	When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.	

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Tensile Test Direction-Transverse
 * Impact Test Direction-Longitudinal
 * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5
 * Supply Condition - Normalized
 * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000

* Specimen No.: a-Tension, c-Impact
 * Position: T-Top, M-Middle, B-Bottom
 * Division: L-Ladle Analysis, P-Product Analysis
 * Sub(Sub Size, Real Value, mm): Blank-Full Size, 1-7.5*10, 2-5.0*10
 * GI(Gauge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65*4
 * 7-50, 8-40, 9-30
 * T(S), Al: Total(Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

[Signature]

Surveyor to : _____ Surveyor to : _____ Chief of Quality Control Team : _____
 Daejin Works, 406 Hanjin-ri, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea
 Page : 11/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME-SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-012
 Date of issue : Nov. 29, 2010

Dimension Unit Inch: " mm: Space	Product No	Quant ity	Weight kg	Heat No	Tensile Test										Impact Test			Chemical Composition																Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
					P o s i t i o n				Y P				TS		EL		S u b		-50 ° F		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T.Ai		S.Ai	Dec																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
					T	1	44	73	27	1	49	75	27	1	82	2	54	3	83	A-75																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
																																					ksi	%	V Notch	ft-lbf																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
31.75*3073*12192 1.25"X121"X480" *Specimen No : DP0206902-a, DP0206902-b ** Normalized: 1670°F, 64min	A084020-01		9,340	J2752178	T	1	44	73	27																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														



We hereby certify that the material has been made by Basic oxygen process (fully killed steel, fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

- * Tensile Test Direction-Transverse
- * Impact Test Direction-Longitudinal
- * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5
- * Supply Condition - Normalized
- * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000

- * Specimen No. : a-Tension, c-Impact
- * Position : 1-Top, M-Middle, B-Bottom
- * Division : L-Ladle Analysis, P-Product Analysis
- * Sub/Size Size, Real Value, mm) : Blank-Full Size, 1-7.5-10, 2-5.0-10
- * GI (Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-35.5-4, 7-35, 8-40, 9-35
- * T(S), Al : Total(Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

[Signature]

Surveyor to : _____ Surveyor to : _____ Chief of Quality Control Team : _____
 Dangjin Works, 400 Hanjin-ro, Songhak-myeon, Dangjin-gun, Chungcheongnam-do, 843-823, Korea
 Page : 12/12





DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372163-28.10.10	357359-004	1/...
MATERIAL TEST REPORT (MTR)		B01 Product		
A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10551-J1010-ER	HOT ROLLED PLATES	
	Final receiver EDMONTON STEEL, EDMON	A07.2 No.		
B02/ Steel design. SA516-70	SA20-S5			
B03 Any suppl. requirements	DIL-HUR-2:R30-2010-01-31			



15856

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N	7133 N	350402	14896-01	
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N	7133 N	350402	14896-02	
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N	7133 N	350402	14995-01	
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N	7133 N	350402	14995-02	
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N	7133 N	350402	15030-01	
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N	7133 N	350402	15030-02	
**	6				42798				
***	6				42798				

B04 Product delivery condition

ITEM NO.: 02,05-06
N: HT: 1670 GR.F +36 -27 GR.F
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 02,05-06
STEEL DESIGNATION SA516 70 MTLV SA516 60 MTLV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

B07-B99 Further information about the product

ITEM NO.: 02,05-06
THICKNESS REDUCTION RATIO >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

A04		QM-System: Certification as per ISO 9001	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar	A01
Z01/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		Inspector's stamp	Inspection department	Date 29.10.10
Manufacturer's mark		B. BALDAUF Test House Manager	ADB	PP 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificates)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		AGB/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372163-28.10.10		357359-004		3/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body DH		A06 Purchaser EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER			
		Final receiver EDMONTON STEEL, EDMON		A07.2 No.		HOT ROLLED PLATES	
B02/ Steel design. SA516-70							
B03 Any suppl. ASME-II-A:07+A09							
requirements DIL-HUE-2:R30-2010-01-31							

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat 350402	FO-02= 0,39	FO-51= 0,001	FO-55= 0,14	FO-78= 0,04	FO-91= 6,8
-------------------------	-------------	--------------	-------------	-------------	------------

C95 Ladle treatment

ITEM NO.: 02,05-06
HEAT OF THE INDICATED ITEM: VACUUM DEGAISED / SULPHIDE SHAPE CONTROL

C95 Further information about ladle treatment

ITEM NO.: 02,05-06
CALCIUM TREATED

C70-C99 Chemical composition % - Product analysis

Heat	Test No.	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
B07.2	B07.1														
Heat	Test No.														
350402	14890	K1 0,168	0,389	1,17	0,010	0,0011	0,0065	0,036	0,011	0,065	0,027	0,001	0,001	0,001	0,003
350402	15169	K1 0,172	0,376	1,15	0,009	0,0010	0,0068	0,036	0,010	0,061	0,027	0,001	0,000	0,000	0,002
B07.2	B07.1														
Heat	Test No.														
350402	14890	K1 0,0002	0,0017	0,032											
350402	15169	K1 0,0002	0,0015	0,035											

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2	B07.1														
Heat	Test No.														
350402	14890	K1 FO-02= 0,38	FO-51= 0,002	FO-55= 0,14											
350402	15169	K1 FO-02= 0,38	FO-51= 0,001	FO-55= 0,13											

A04



Manufacturer's
mark

Z017097203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

B. Baldauf

B. BALDAUF
Test House Manager



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
inspection department

Inspector's stamp

Date 29.10.10

PP 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02	INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10	Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
	INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991			372163-28.10.10	357359-004	4
MATERIAL TEST REPORT (NTR)						
A05	Established inspecting body	A06 Purchaser	EDMONTON STEEL, EDMON	A07.1 No.	ED10551-J1010-ER	
DH		Final receiver	EDMONTON STEEL, EDMON	A07.2 No.		
B02/	Steel design.	SA516-70	SR20-S5			
B03	Any suppl.	ASME-III-A:07+A09				
	requirements	DIL-HUE-2:R30-2010-01-31				

C94 Carbon equivalent formula / Alloying restrictions

FO-02 = C + (MN/6) + (CR+MO+V)/5 + (NI+CU)/15
FO-51 = V + NB
FO-55 = CU+MO+NI+CR
FO-78 = CR+MO
FO-91 = MN/C

D01 Marking and identification, surface appearance, shape and dimensional properties

ITEM NO.: 02,05-06
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS
SURFACE AS PER ASME-SA20
THICKNESS AS PER ASME-SA20
LENGTH AND WIDTH AS PER ASME-SA20
FLATNESS AS PER 1/2-ASME-SA20



A04	201202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	A01	AG der Dillinger Hüttenwerke Postfach 1588, D-66748 Dillingen/Saar Inspection department
QM-System: Certification as per ISO 9001			
Manufacturer's mark		Inspector's stamp	Date 29.10.10
		B. BALDAUF Test House Manager	PP 1

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A09 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		1/...	
MATERIAL TEST REPORT (MTR)							
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DE		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON		HOF ROLLED PLATES	
B02/ Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A-07+A09		DIL-HUE-2-R30-2010-01-31			



B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchase article number
			INCH		KG				
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34359-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34359-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34359-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34482-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34482-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34532-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34532-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34532-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34572-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34572-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34572-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34692-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34692-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351660	34692-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34107-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34107-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34107-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34287-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34287-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34287-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34331-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34331-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N		351661	34331-03	

201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. Baldauf

B. BALDAUF
Test House Manager

AG der Dillinger Hüttenwerke
Postfach 4580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp Date 05.11.10





DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10	359527-001	2/...
MATERIAL TEST REPORT (MTR)		B01 Product		
A05 Established inspecting body		HOT ROLLED PLATES		
DH				
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-II-A:07+A09				
requirements DIL-HUE-2:R30-2010-01-31				
A06 Purchaser		A07.1 No. ED10553-J1010-ER		
Final receiver		A07.2 No.		
EDMONTON STEEL, EDMON		SA20-S5		
EDMONTON STEEL, EDMON				

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
**	23				106950				
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34360-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34360-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34360-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34479-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34479-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34479-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34507-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34507-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34507-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34541-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34541-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34541-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34646-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34646-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34646-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34695-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34695-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351660	34695-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351661	34129-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351661	34129-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351661	34129-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		351661	34269-01	

2012/02/03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection departmentB. BALDAUF
Test House Manager

Inspector's stamp

Date 05.11.10

PP

2

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		3/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body		A06 Purchaser		A07.1 No.		
DH		Final receiver		EDMONTON STEEL, EDMON		
				A07.2 No.		
				EDMONTON STEEL, EDMON		
B02/ Steel design.		SA516-70		SA20-SS		
B03 Any suppl. requirements		ASME-II-A:07+A09				
		DIL-HUE-2:R30-2010-01-31				

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	0,7500 x	120,50000 x	480,00000	5580	N	351661	34269-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	351661	34269-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	351661	34342-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	351661	34342-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	351661	34342-03	
**	27				150660				
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35146-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35146-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35147-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35147-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35193-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35193-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35239-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35239-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35350-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351658	35350-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34829-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34829-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34831-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34831-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34851-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34851-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34997-01	

201202/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. BALDAUF
Test House Manager

Inspector's stamp Date 05.11.10



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

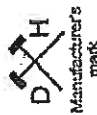
A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		4/...	
MATERIAL TEST REPORT (MTR)				B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON	
S02/ Steel design.		S03/ Steel design.		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUE-2:R30-2010-01-31					

B01-B99 Description of the product

B14 Item No.	B03 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser-article number
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	351659	34997-02	
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	351659	35145-01	
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	351659	35145-02	
**	20				130200				
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35403-01	
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35450-01	
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35450-02	
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35453-01	
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35453-02	
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35458-01	
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35458-02	
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35463-01	
04	1	1,0000 x	96,50000 x	480,00000 x	5959	N	351658	35463-02	
**	9				53631				
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351661	33863-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351661	33863-02	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351661	34106-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32679-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32679-02	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32686-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32686-02	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32697-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32700-01	

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



B. BALDAUF
Test House Manager

Inspector's stamp

Date 05.11.10

PP

A01



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		5/...	
MATERIAL TEST REPORT (MTR)				801 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON	
802/ Steel design.		SA516-70		SA20-S5			
803 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUE-2:R30-2010-01-31					

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32700-02	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32701-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32701-02	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32814-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440	N	351664	32814-02	
**	14				104160				
06	1	1,0000 x	178,00000 x	480,00000 x	10991	N	351663	33457-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738	N	351659	34697-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738	N	351659	34764-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738	N	351659	34764-02	
07	1	1,1250 x	97,00000 x	480,00000 x	6738	N	351659	34779-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738	N	351659	34780-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738	N	351659	34827-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738	N	351659	34827-02	
**	7				47166				
08	1	1,2500 x	97,00000 x	480,00000 x	7487	N	351664	32678-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	351663	33459-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	351663	33460-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	351663	33690-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	351663	33768-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339	N	351663	33771-01	
**	5				46695				
***	107				657940				

201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



B. BALDAUF
Test House Manager

Inspector's stamp Date 05.11.10

PP

A01

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificates)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10553-J1010-ER
 DH Final receiver EDMONTON STEEL, EDMON A07.2 No.

B02 Steel design. SA516-70

B03 Any suppl. ASME-II-A:07+A09

requirements DIL-HUB-2:R30-2010-01-31

SA20-S5

A10 Advice of dispatch No./ Date of dispatch 372664-05.11.10

A08/ Manufacturer's order/ A03 Certificate No. 359527-001

B01 Product HOT ROLLED PLATES

Shoot 6/...

B04 Product delivery condition

ITEM NO.: 01-09

N: HT: 1670 GR.F +36 -27 GR.F

SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
 COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-09

STEEL DESIGNATION SA516 70 MTLV SA516 60 MTLV

HEAT NO. / TRADEMARK / ROLLED PLATE NO. -TEST NO. / INSPECTOR'S STAMP

B07-B99 Further information about the product

ITEM NO.: 01-09

THICKNESS REDUCTION RATIO $\geq 3,0$ IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 B07.2 Item Heat No.	B07.1 Rolled plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13	A % LD=8N	A % LD=2N	C14-C15
01 351660 34359	K1 Q	RT	50,3	75,0	25				
01 351660 34482	K1 Q	RT	50,5	75,4	28				
01 351660 34532	K1 Q	RT	50,0	75,1	27				
01 351660 34572	K1 Q	RT	50,8	75,4	27				
01 351660 34692	K1 Q	RT	51,8	75,7	27				
01 351661 34107	K1 Q	RT	49,7	74,5	26				
01 351661 34287	K1 Q	RT	49,4	74,7	26				
01 351661 34331	K1 Q	RT	49,7	74,2	26				
02 351660 34360	K1 Q	RT	50,2	74,8	27				

A04 201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar

Inspection department

Inspector's stamp Date 05.11.10

Test House Manager B. BALDAUF

PP 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No./ Date of dispatch 372664-05.11.10	A08/ Manufacturer's order/ A03 Certificate No. 359527-001	Sheet 7/...
A05 Established inspecting body DE A08 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10553-J1010-ER Final receiver EDMONTON STEEL, EDMONT A07.2 No. SA20-S5				
B02 Steel design. SA516-70 B03 Any suppl. ASME-II-A-07+A09 requirements DIL-HOE-2:R30-2010-01-31				

C10-C29 Tensile test

B14 B97.2 Item No.	B07.1 Rol./plat/ Test No.	B05 Reference (heat) treatment	C01 C01	C02 C02	C03 C03	C10 C10	C11 C11	C12 C12	C13 C13	A A % % Loss Loss	A A % % Loss Loss	C14-C15 C14-C15
02	351660	34479	K1 Q	RT	RT	RT	RT	75,4	75,4	27	27	
02	351660	34507	K1 Q	RT	RT	RT	RT	75,4	75,4	27	27	
02	351660	34541	K1 Q	RT	RT	RT	RT	75,4	75,4	27	27	
02	351660	34646	K1 Q	RT	RT	RT	RT	75,4	75,4	27	27	
02	351660	34695	K1 Q	RT	RT	RT	RT	75,3	75,3	28	28	
02	351661	34129	K1 Q	RT	RT	RT	RT	74,5	74,5	27	27	
02	351661	34269	K1 Q	RT	RT	RT	RT	75,3	75,3	29	29	
02	351661	34342	K1 Q	RT	RT	RT	RT	75,1	75,1	26	26	
03	351658	35146	K1 Q	RT	RT	RT	RT	74,2	74,2	27	27	
03	351658	35147	K1 Q	RT	RT	RT	RT	74,7	74,7	28	28	
03	351658	35193	K1 Q	RT	RT	RT	RT	74,5	74,5	28	28	
03	351658	35239	K1 Q	RT	RT	RT	RT	74,5	74,5	29	29	
03	351658	35350	K1 Q	RT	RT	RT	RT	74,2	74,2	26	26	
03	351659	34829	K1 Q	RT	RT	RT	RT	75,0	75,0	29	29	
03	351659	34831	K1 Q	RT	RT	RT	RT	74,7	74,7	27	27	
03	351659	34851	K1 Q	RT	RT	RT	RT	74,5	74,5	29	29	
03	351659	34997	K1 Q	RT	RT	RT	RT	74,4	74,4	27	27	
03	351659	35145	K1 Q	RT	RT	RT	RT	74,4	74,4	27	27	
04	351658	35403	K1 Q	RT	RT	RT	RT	74,1	74,1	29	29	
04	351658	35450	K1 Q	RT	RT	RT	RT	74,4	74,4	27	27	
04	351658	35453	K1 Q	RT	RT	RT	RT	74,0	74,0	28	28	
04	351658	35458	K1 Q	RT	RT	RT	RT	75,0	75,0	29	29	
04	351658	35463	K1 Q	RT	RT	RT	RT	75,1	75,1	27	27	

A04	Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspection's stamp Date 05.11.10	PP 1
QM-System: Certification as per ISO 9001					
B. BALDAUF Test House Manager					



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1.1.995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		8/...	
MATERIAL TEST REPORT (MTR)				S01 Product			
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		A07.1 No. ED10553-J1010-ER	
DH		Final receiver		EDMONTON STEEL, EDMON		A07.2 No.	
S02 Steel design.		SA516-70				SA20-S5	
S03 Any suppl. requirements		ASME-II-A-07+A09					
		DIL-HUE-2-R30-2010-01-31					

C10-C29 Tensile test									
B14 Item No.	B07.1 Heat No.	B05 Roll plate/ Test No.	Reference (heat) treatment	C01 C02 C03 C04 C05 C06 C07 C08 C09	C10 C11 C12 C13 C14 C15	A %	A %	A %	A %
05	351661	33863		K1 Q	RT	50,5	74,5	27	
05	351661	34106		K1 Q	RT	49,9	74,2	28	
05	351664	32679		K1 Q	RT	47,9	72,8	28	
05	351664	32686		K1 Q	RT	48,3	72,8	28	
05	351664	32697		K1 Q	RT	48,6	72,8	28	
05	351664	32700		K1 Q	RT	48,4	73,2	28	
05	351664	32701		K1 Q	RT	48,3	73,5	28	
05	351664	32814		K1 Q	RT	47,9	73,7	27	
06	351663	33457		K1 Q	RT	48,1	73,8	30	
07	351659	34697		K1 Q	RT	49,4	73,8	27	
07	351659	34764		K1 Q	RT	48,7	73,7	28	
07	351659	34779		K1 Q	RT	48,6	73,7	29	
07	351659	34780		K1 Q	RT	47,6	74,0	31	
07	351659	34827		K1 Q	RT	48,1	74,0	38	
08	351664	32678		K1 QV	RT	47,7	74,0	37	
09	351663	33459		K1 QV	RT	50,6	75,4	36	
09	351663	33460		K1 QV	RT	52,1	75,5	35	
09	351663	33690		K1 QV	RT	47,6	74,7	35	
09	351663	33768		K1 QV	RT	49,3	75,3	35	
09	351663	33771		K1 QV	RT	48,6	74,8	35	

A04		201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
D/H Manufacturer's mark		E. BALDAUF T... Manager		AGB		Inspector's stamp	
QM-System: Certification as per ISO 9001		Date 05.11.10		PP		1	



DILLINGER HÜTTE

Erklärung: siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificates)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372654-05.11.10		359527-001		9/...	
NATURAL TEST REPORT (NTR)		A06 Purchaser		B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body		EDMONTON STEEL, EDMON		A07.1 No. ED10553-J1010-ER.			
DH		Final receiver		EDMONTON STEEL, EDMON			
B02 Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HDB-2:R30-2010-01-31					

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Solgated Test No.	B05 References (heat) treatment	C01	C02/C04	C03 Temp. GRF	C30 Method of test	C35 C31 Individual values	C32 Mean value
01	351660	34359		K1	0	RT	HBW 10/3000	HB 149 150 149	149
01	351660	34482		K1	0	RT	HBW 10/3000	HB 149 149 149	149
01	351660	34532		K1	0	RT	HBW 10/3000	HB 150 150 150	150
01	351660	34572		K1	0	RT	HBW 10/3000	HB 150 151 149	150
01	351660	34692		K1	0	RT	HBW 10/3000	HB 150 151 150	150
01	351661	34107		K1	0	RT	HBW 10/3000	HB 149 149 148	149
01	351661	34287		K1	0	RT	HBW 10/3000	HB 150 150 150	150
01	351661	34331		K1	0	RT	HBW 10/3000	HB 148 149 148	148
02	351660	34360		K1	0	RT	HBW 10/3000	HB 149 149 149	149
02	351660	34479		K1	0	RT	HBW 10/3000	HB 150 151 151	151
02	351660	34507		K1	0	RT	HBW 10/3000	HB 148 149 148	148
02	351660	34541		K1	0	RT	HBW 10/3000	HB 149 149 149	149
02	351660	34646		K1	0	RT	HBW 10/3000	HB 149 149 149	149
02	351660	34695		K1	0	RT	HBW 10/3000	HB 149 149 149	149
02	351661	34129		K1	0	RT	HBW 10/3000	HB 148 148 148	148
02	351661	34269		K1	0	RT	HBW 10/3000	HB 149 149 149	149
02	351661	34342		K1	0	RT	HBW 10/3000	HB 148 148 148	148
03	351658	35146		K1	0	RT	HBW 10/3000	HB 149 149 149	149
03	351658	35147		K1	0	RT	HBW 10/3000	HB 150 150 149	150
03	351658	35193		K1	0	RT	HBW 10/3000	HB 147 147 146	147
03	351658	35239		K1	0	RT	HBW 10/3000	HB 149 149 149	149
03	351658	35350		K1	0	RT	HBW 10/3000	HB 148 149 148	148
03	351659	34829		K1	0	RT	HBW 10/3000	HB 147 147 146	147
03	351659	34831		K1	0	RT	HBW 10/3000	HB 152 149 149	150

A04		20/12/2023 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
D/H Manufacturer's mark		B. BALDAUF Test House Manager		A08 Inspector's stamp		PP 1	
QM-System: Certification as per ISO 9001		Date 05.11.10					



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No./ Date of dispatch 372664-05.11.10	A08/ Manufacturer's order/ A03 Certificate No. 359527-001	Sheet 10/...
A05 Established inspecting body DEH		B01 Product HOT ROLLED PLATES		
B02 Steel design. SA516-70		A07.1 No. ED10553-J1010-ER		
B03 Any suppl. requirements DILL-HÜB-2-R30-2010-01-31		A07.2 No. EDMONTON STEEL, EDMONTON		
		SA20-S5		

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C30 Method of test	C35 C31 Individual values	C32 Mean value
03	351659	34851		K1	O	RT	HBW 10/3000	HB 148	148
03	351659	34997		K1	O	RT	HBW 10/3000	HB 146	146
03	351659	35145		K1	O	RT	HBW 10/3000	HB 147	147
04	351658	35403		K1	O	RT	HBW 10/3000	HB 149	148
04	351658	35450		K1	O	RT	HBW 10/3000	HB 147	147
04	351658	35453		K1	O	RT	HBW 10/3000	HB 146	146
04	351658	35458		K1	O	RT	HBW 10/3000	HB 147	147
04	351658	35463		K1	O	RT	HBW 10/3000	HB 149	146
05	351661	33863		K1	O	RT	HBW 10/3000	HB 151	149
05	351661	34106		K1	O	RT	HBW 10/3000	HB 148	151
05	351664	32679		K1	O	RT	HBW 10/3000	HB 148	148
05	351664	32686		K1	O	RT	HBW 10/3000	HB 145	145
05	351664	32697		K1	O	RT	HBW 10/3000	HB 147	145
05	351664	32700		K1	O	RT	HBW 10/3000	HB 145	146
05	351664	32701		K1	O	RT	HBW 10/3000	HB 146	145
05	351664	32814		K1	O	RT	HBW 10/3000	HB 146	147
06	351663	33457		K1	O	RT	HBW 10/3000	HB 145	146
07	351659	34697		K1	O	RT	HBW 10/3000	HB 146	145
07	351659	34764		K1	O	RT	HBW 10/3000	HB 148	147
07	351659	34779		K1	O	RT	HBW 10/3000	HB 146	146
07	351659	34780		K1	O	RT	HBW 10/3000	HB 145	146
07	351659	34827		K1	O	RT	HBW 10/3000	HB 145	145
08	351664	32678		K1	O	RT	HBW 10/3000	HB 145	145
09	351663	33459		K1	O	RT	HBW 10/3000	HB 150	151

A04	Z01/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		PP 1
QM-System: Certification as per ISO 9001		Inspector's stamp Date 05.11.10		
Manufacturer's mark		Test House Manager B. BALDAUF		



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10	359527-001	11/...
MATERIAL TEST REPORT (MTR)				

A05 Established inspecting body DH	A08 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10553-J1010-ER	A07.2 No. EDMONTON STEEL, EDMON	A01 Product HOT ROLLED PLATES
---------------------------------------	--	-------------------------------	------------------------------------	----------------------------------

B02/ Steel design. SA516-70	SA20-S5			
B03 Any suppl. requirements	ASME-II-A:07+A09			
	DIL-HUE-2:R30-2010-01-31			

C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C30 Method of test	C35 Individual values	C32 Mean value
09	351663	33460		K1	O	RT	HBW 10/3000	HB 150	150
09	351663	33690		K1	O	RT	HBW 10/3000	HB 150	148
09	351663	33768		K1	O	RT	HBW 10/3000	HB 148	149
09	351663	33771		K1	O	RT	HBW 10/3000	HB 148	148

C40-C49 Impact test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method
01	351660	34359		K1	LV	-51	-51	CHP-V	AV 132
01	351660	34482		K1	LV	-51	-51	CHP-V	AV 140
01	351660	34532		K1	LV	-51	-51	CHP-V	AV 113
01	351660	34572		K1	LV	-51	-51	CHP-V	AV 131
01	351660	34692		K1	LV	-51	-51	CHP-V	AV 163
01	351661	34107		K1	LV	-51	-51	CHP-V	AV 164
01	351661	34287		K1	LV	-51	-51	CHP-V	AV 159
01	351661	34331		K1	LV	-51	-51	CHP-V	AV 209
02	351660	34360		K1	LV	-51	-51	CHP-V	AV 111
02	351660	34479		K1	LV	-51	-51	CHP-V	AV 187
02	351660	34507		K1	LV	-51	-51	CHP-V	AV 197
02	351660	34541		K1	LV	-51	-51	CHP-V	AV 154
02	351660	34646		K1	LV	-51	-51	CHP-V	AV 198
02	351660	34695		K1	LV	-51	-51	CHP-V	AV 110
02	351661	34129		K1	LV	-51	-51	CHP-V	AV 192
02	351661	34269		K1	LV	-51	-51	CHP-V	AV 189
02	351661	34342		K1	LV	-51	-51	CHP-V	AV 171

A04 2011/2022/03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

	AG der Dillinger Hüttenwerke Postfach 1580, D-65748 Dillingen/Saar Inspection department	Inspector's stamp Date 05.11.10	PP 1
QM-System: Certification as per ISO 9001			
B. BALDAUF Test House Manager			



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
 MATERIAL TEST REPORT (MTR)

A03 Manufacturer's order
 A03 Certificate No. 359527-001
 B01 Product
 HOT ROLLED PLATES

A10 Advice of dispatch No./
 Date of dispatch 372664-05.11.10
 A07.1 No. ED10553-J1010-ER
 A07.2 No. SA20-S5

C40-C49 Impact test												
B14 Item No.	B07.2 Heat No.	B07.1 Ref. plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 Individual values AV=FT.LBF	C43 Mean value
03	351658	35146		K1	LV	-51		CHP-V			114	147
03	351658	35147		K1	LV	-51		CHP-V			112	149
03	351658	35193		K1	LV	-51		CHP-V			92	114
03	351658	35239		K1	LV	-51		CHP-V			120	134
03	351658	35350		K1	LV	-51		CHP-V			203	192
03	351659	34829		K1	LV	-51		CHP-V			200	147
03	351659	34831		K1	LV	-51		CHP-V			201	149
03	351659	34851		K1	LV	-51		CHP-V			188	162
03	351659	34997		K1	LV	-51		CHP-V			162	153
03	351659	35145		K1	LV	-51		CHP-V			198	166
04	351658	35403		K1	LV	-51		CHP-V			207	174
04	351658	35450		K1	LV	-51		CHP-V			109	133
04	351658	35453		K1	LV	-51		CHP-V			135	118
04	351658	35458		K1	LV	-51		CHP-V			116	111
04	351658	35463		K1	LV	-51		CHP-V			104	102
05	351661	33863		K1	LV	-51		CHP-V			132	138
05	351661	34106		K1	LV	-51		CHP-V			107	143
05	351664	32679		K1	LV	-51		CHP-V			205	171
05	351664	32686		K1	LV	-51		CHP-V			204	208
05	351664	32697		K1	LV	-51		CHP-V			222	151
05	351664	32700		K1	LV	-51		CHP-V			117	119
05	351664	32701		K1	LV	-51		CHP-V			116	113
05	351664	32814		K1	LV	-51		CHP-V			92	116
06	351663	33457		K1	LV	-51		CHP-V			126	154

A04 2012/202/203. We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.
QM-System: Certification as per ISO 9001
 AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department
 AHB
 B. BALDAUF
 Test House Manager
 Inspector's stamp Date 05.11.10 PP 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		13/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A06 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		A07.1 No. ED10553-J1010-ER
DH		Final receiver		EDMONTON STEEL, EDMON		A07.2 No.
B02/ Steel design.		SA516-70				SA20-S5
B03 Any suppl. requirements		ASME-II-A:07+A09				
		DIL-HUE-2:R30-2010-01-31				

C40-C49 Impact test

B14 Item No.	B07.2 Host No.	B07.1 Rol.pisto. Test No.	B05 Reference (heat) treatment.	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C45 Energy	C45 Individual values AV=FILEF	C43 Means value
07	351659	34697		KL	LV	-51		CHP-V		AV 100	72	91
07	351659	34764		KL	LV	-51		CHP-V		AV 119	87	107
07	351659	34779		KL	LV	-51		CHP-V		AV 80	102	122
07	351659	34780		KL	LV	-51		CHP-V		AV 92	80	94
07	351659	34827		KL	LV	-51		CHP-V		AV 120	128	114
08	351664	32678		KL	LV	-51		CHP-V		AV 164	102	123
09	351663	33459		KL	LV	-51		CHP-V		AV 128	193	157
09	351663	33460		KL	LV	-51		CHP-V		AV 108	136	112
09	351663	33690		KL	LV	-51		CHP-V		AV 103	190	135
09	351663	33768		KL	LV	-51		CHP-V		AV 116	194	141
09	351663	33771		KL	LV	-51		CHP-V		AV 103	115	106

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NE	SN	TI
351658	Y	0,172	0,372	1,20	0,011	0,0006	0,0067	0,019	0,005	0,022	0,020	0,000	0,000	0,001	0,002
351659	Y	0,177	0,375	1,19	0,010	0,0007	0,0059	0,034	0,010	0,034	0,026	0,000	0,000	0,001	0,002
351660	Y	0,177	0,372	1,18	0,010	0,0008	0,0070	0,025	0,008	0,032	0,023	0,001	0,000	0,001	0,002
351661	Y	0,171	0,380	1,18	0,011	0,0009	0,0067	0,033	0,009	0,039	0,026	0,000	0,000	0,001	0,002
351663	Y	0,173	0,376	1,19	0,012	0,0011	0,0082	0,027	0,016	0,036	0,041	0,001	0,001	0,001	0,002
351664	Y	0,165	0,355	1,17	0,011	0,0009	0,0055	0,054	0,011	0,053	0,039	0,000	0,000	0,003	0,002

A04	 DM-System: Certification as per ISO 9001	 B. BALDAUF Test House Manager	 AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 05.11.10 PP 1
-----	---	---	---	--

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10553-J1010-ER

DH Final receiver EDMONTON STEEL, EDMON A07.2 No. SA20-S5

B02/ Steel design. SA516-70

B03 Any suppl. ASME-II-A:07+A09

requirements DIL-HUE-2:R30-2010-01-31

A10 Advice of dispatch No./
Date of dispatch

372664-05.11.10

A08/ Manufacturer's order/
A09 Certificate No.

359527-001

801 Product

HOT ROLLED PLATES

Sheet

14/...

C70-C99 Chemical composition % - Heat analysis

B07.2	C70	B	CA	AL-T
Heat				
351658	Y	0,0002	0,0011	0,031
351659	Y	0,0002	0,0018	0,033
351660	Y	0,0001	0,0019	0,032
351661	Y	0,0002	0,0018	0,037
351663	Y	0,0002	0,0016	0,037
351664	Y	0,0002	0,0015	0,033

C94 Heat analysis: Carbon equivalent / Alloying restrictions

B07.2	Heat	FO-02=	0,38	FO-51=	0,000	FO-55=	0,07	FO-78=	0,03	FO-91=	7,0
351658		FO-02=	0,39	FO-51=	0,000	FO-55=	0,10	FO-78=	0,04	FO-91=	6,7
351659		FO-02=	0,38	FO-51=	0,001	FO-55=	0,09	FO-78=	0,03	FO-91=	6,7
351660		FO-02=	0,38	FO-51=	0,000	FO-55=	0,11	FO-78=	0,04	FO-91=	6,9
351661		FO-02=	0,39	FO-51=	0,002	FO-55=	0,12	FO-78=	0,06	FO-91=	6,9
351663		FO-02=	0,38	FO-51=	0,000	FO-55=	0,16	FO-78=	0,05	FO-91=	7,1
351664											

C95 Ladle treatment

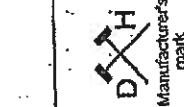
ITEM NO.: 01-09

HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C95 Further information about ladle treatment

ITEM NO.: 01-09

CALCIUM TREATED



Manufacturer's mark

Z011Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. BALDAUF
Test House Manager

Inspector's stamp

Date 05.11.10

PP 1



INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

Established inspecting body	A06 Purchaser	EDMONTON STREET, EDMONTON	A07.1 No. ED10553-J1010-ER
-----------------------------	---------------	---------------------------	----------------------------

A072 N/A

EDMONTON STEEL, EDMONTON

SA20-55

01-31

C70-C99 Chemical composition % - Product analysis

505

1999

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. BALDAUF
Test House Manager

Inspector's stamp Date 05.11.10

323



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991.A1:1995 + AS PER ISO 10474:1991		372654-05.11.10		359527-001		16/...	
MATERIAL TEST REPORT (MTR)		A07.1 No. ED10553-J1010-ER		B01 Product			
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		HOT ROLLED PLATES	
DH		Final receiver		EDMONTON STEEL, EDMON			
B02/ Steel design.		SA516-70					
B03 Any suppl.		ASME-II-A:07+A09					
requirements		DIL-HUB-2:R30-2010-01-31					
		SA20-S5					

C70-C99 Chemical composition % - Product analysis

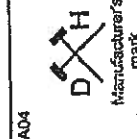
B07.2	B07.1	C01	B	CA	AL-T
Heat	Test No.				
351661	34310	K1	0,0002	0,0019	0,033
351663	33457	K1	0,0002	0,0017	0,036
351663	33690	K1	0,0000	0,0016	0,037
351664	32678	K1	0,0002	0,0015	0,032
351664	32686	K1	0,0002	0,0015	0,032

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2	B07.1	C01	FO-02=	FO-51=	FO-55=
Heat	Test No.				
351658	35350	K1	FO-02=	FO-51=	FO-55=
351658	35463	K1	FO-02=	FO-51=	FO-55=
351659	34696	K1	FO-02=	FO-51=	FO-55=
351659	34764	K1	FO-02=	FO-51=	FO-55=
351659	34851	K1	FO-02=	FO-51=	FO-55=
351660	34482	K1	FO-02=	FO-51=	FO-55=
351660	34646	K1	FO-02=	FO-51=	FO-55=
351661	34106	K1	FO-02=	FO-51=	FO-55=
351661	34287	K1	FO-02=	FO-51=	FO-55=
351661	34310	K1	FO-02=	FO-51=	FO-55=
351663	33457	K1	FO-02=	FO-51=	FO-55=
351663	33690	K1	FO-02=	FO-51=	FO-55=
351664	32678	K1	FO-02=	FO-51=	FO-55=
351664	32686	K1	FO-02=	FO-51=	FO-55=

20170225Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. BALDAUF
Test House Manager

Inspector's stamp

Date 05.11.10

pp

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

A01

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A09 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		17	
MATERIAL TEST REPORT (MTR)		EDMONTON STEEL, EDMONTON		A07.1 No. ED10553-J1010-ER		B01 Product	
A05 Established inspecting body		A06 Purchaser		A07.2 No.		HOT ROLLED PLATES	
DE		Final receiver		EDMONTON STEEL, EDMONTON			
B02 Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUE-2:R30-2010-01-31					

C94 Carbon equivalent formula / Alloying restrictions

FO-02 = $C + (Mn/6) + (Cr+Mo+V) / 5 + (Ni+Cu) / 15$
 FO-51 = V + Nb
 FO-55 = Cu+Mo+Ni+Cr
 FO-78 = Cr+Mo
 FO-91 = Mn/C

B01 Marking and identification, surface appearance, shape and dimensional properties

ITEM NO.: 01-09

RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS

SURFACE AS PER ASME-SA20
 THICKNESS AS PER ASME-SA20
 LENGTH AND WIDTH AS PER ASME-SA20
 FLATNESS AS PER 1/2-ASME-SA20



20/12/2023 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department



B. BALDAUF
 Test House Manager

Inspector's stamp

Date 05.11.10

PP 1

注 文 者 : HANWA CO., LTD.

注文書照会番号 : 228-38501090

契約番号 : 1-831-HI-5-4-AI01

商 品 名 : HOT ROLLED STEEL PLATES

規格 : ASME SA-516 GRADE 70-E10

文 書 番 号 : 需 要 家 : EDMONTON EXCHANGER GROUP OF C-
DOCUMENT NO. CUSTOMER : COMPANIES

新日本製鐵株式會社
Nippon Steel Corporation

鋼 材 検 査 証 明 書

INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL
TESTS 3.1)

需 要 家 管 理 番 号 :
CUSTOMER'S CONTROL NO.

社 址 : 〒100-8071 東京都千代田区丸の内二丁目6番1号
HEAD OFFICE : 2-6-1 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
君 津 製 鐵 所 : 〒299-1141 千葉県君津市君津 1 番 地
KIMITSU WORKS : 1, KIMITSU, KIMITSU-CITY, CHIBA-PREF. 299-1141, JAPAN

証 明 番 号 : P-13163 PAGE : 59
CERTIFICATE NO. :
発行年月日 : 2011-04-06
DATE OF ISSUE : 1001

2***DM****
*****CE***
E3001P07Q1 E07

DOCUMENT NO.

0.75" X 120.5" X 480"

06

2

11158

G4225FROM
11526

27524062TCI
TO
275240630

55

77

29

注 記 NOTES ① Location Orientation 位置・方向, T: 頂部 Top, B: 底面 Bottom, L: 広げ方向 Longitudinal, C: 直方向 Transverse, Z: 側面方向 Through Thickness, R: 1/4" 方向 45deg. to the Longitudinal Axis

② G.L. 試験距離 Gage Length, A: 50mm 平坦試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平坦試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平坦試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65/50, K: 4/50
③ R.A. : 絞り Reduction of Area, Y.R. : 絞り Yield Ratio, ④ A: 合格 Acceptable, ⑤ P: 製品分析 Product Analysis, ⑥ P: 製品分析 Product Analysis, ⑦ N: 標準 Normalized, Q: 焼入れ Quenched, CR: Controlled Rolled, NLC: NLC Process/TMC Process, CLC: CLC Process/TMC Process, A.R.: As Rolled, T.M.R.: T.M.R. Process/TMC Process, N.R.: Normalizing Rolled
S.H.: 試験結果 Shear Fracture, C.F.: 試験結果 Crystal Fracture, L.E.: 試験結果 Lateral Expansion, A.G.S.: オーステナイト型炭素鋼 Austenitic Grade Size, F.G.S.: フライット型炭素鋼 Ferritic Grade Size, S.R.: Stress Relieved/Post Weld Heat Treatment

上記注文品は御指定の規格または仕様に従って製造され、その要求事項を満足していることを証明します。

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN
MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.



15081

J. Adachi

君津製鐵所 鋼材管理グループリーダ
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS



注 文 者 : HANWA CO., LTD.

注文者照会番号 : 228-38501090

契約番号 : 1-831-H1-5-4-A101

商 品 名 : HOT ROLLED STEEL PLATES

規 格 : ASME SA-516 GRADE 70-E10

文 書 番 号 : 1001

DOCUMENT No.

需 要 家 : EDMONTON EXCHANGER GROUP OF C-
CUSTOMER : COMPANIES

TESTS 3.1)

需 要 家 管 理 番 号 : 1001

(AS PER EN 10204 CERTIFICATE ON MATERIAL

DATE OF ISSUE : 2011-04-06

発行年月日 : 2011-04-06

22DM****

*****CEW***

E3001P9701 E07

鋼材検査証明書 INSPECTION CERTIFICATE

新日本製鋼株式会社
Nippon Steel Corporation

社 址 : 〒100-8071 東京都千代田区丸の内二丁目6番1号
HEAD OFFICE : 2-6-1 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
君津製鋼所 : 〒299-1141 千葉県君津市君津1番地
KIMITSUWORKS : 1, KIMITSU-KUNITSU-CITY, CHIBA-PREF. 299-1141, JAPAN

証明番号 : P-13163 PAGE : 62

CERTIFICATE No. : P-13163

発行年月日 : 2011-04-06

22DM****

*****CEW***

E3001P9701 E07

DOCUMENT No. :		CUSTOMER		COMPANIES		引張試験				衝撃試験				新築試験 HBW												化 学 成 分												CHEMICAL COMPOSITION %																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
寸 法 DIMENSION mm, inch, feet	厚 度 THICKNESS	質 量 MASS	鋼鋼番号 CAST No.	試験番号 TEST No.	製品番号 PLATE No.	TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST		TENSILE TEST	

注 記 NOTES [1] Location Orientation 位置・方向 T: 縦断 Top B: 底面 Bottom L: 圧延方向 Longitudinal C: 圧延方向 Transverse Z: 垂直方向 Through Thickness R: 45° 方向 45Deg to the Longitudinal Axis

[2] G.L. 板公称厚 Gauge Length A: 50mm 正方形試験片 Rectangular B: 50mm 正方形試験片 Rectangular C: 70mm 正方形試験片 Rectangular D: 70mm 正方形試験片 Rectangular E: 80mm 正方形試験片 Rectangular F: 80mm 正方形試験片 Rectangular G: 200mm H: 2' 1' 8" J: 5.65/Sq. K: 4/Sq

[3] R.A. 絞り Reduction of Area Y.R. 伸び Yield Ratio [4] A: 合格 Acceptable [5] F: 検査寸法 FULL SIZE Z: 2.5mm, 3: 3.2mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.7mm, 8: 8.7mm, 9: 9.5mm 試験厚 Plate Thickness [6] P: 板厚分析 Product Analysis

[7] N: 焼戻し Normalized Q: 焼入れ Quenched T: 焼戻し Tempered C.R: 焼戻し Tempered C.L.C: CLC Process/TMC Process A.R: As Rolled T.M.R: TMR Process/TMC Process S.R: As Rolled/TMC Process N.R: Normalizing Rolled

S.H: 焼戻し Shear Fracture C.F: 焼戻し Shear Fracture A.G.S: オーステナイト焼戻し Austenite Grain Size F.G.S: フェライト粒径 Ferrite Grain Size S.R: Stress Relieved Post Weld Heat Treatment

上記注文品は御指定の規格または仕様によって製造され、その要求事項を満足していることを証明します。

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN

MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.



J. Adachi

君津製鋼所 板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSUWORKS

B

注文者: HANWA CO., LTD.
注文者参考番号: 228-38501090
契約番号: 1-831-H1-5-4-A101
商品名: HOT ROLLED STEEL PLATES
規格: ASME SA-516 GRADE 70-E10
文書番号: 1001
証明書番号: P-13163
発行年月日: 2011-04-06
必要家管理番号: E3001P0701 E07

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

必要家管理番号: E3001P0701 E07

寸法	数量	質量	試験番号	製品番号	引張試験	衝撃試験	化学成分	機械試験	金相試験	その他
0.875" X 120.5" X 480"	07	2	13018	275240723	54	77	0.02%	274	265	280
0.875" X 120.5" X 480"	07	1	6509	275240723	55	77	0.02%	274	265	280
0.875" X 120.5" X 480"	07	2	13018	275240723	55	77	0.02%	274	265	280

上記注文品は御指定の規格または仕様に従って製造され、その要求事項を満足していることを証明します。

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.

J. Adachi
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS



注 意 事 項
1. 検査項目: 引張試験, 衝撃試験, 化学分析, 金相試験
2. 検査方法: 引張試験: JIS Z 2201, 衝撃試験: JIS Z 2202, 化学分析: JIS S 5001, 金相試験: JIS Z 2203
3. 検査結果: 引張試験: 54, 55, 55; 衝撃試験: 77, 77, 77; 化学分析: 0.02%; 金相試験: 274, 265, 280
4. 検査場所: 金沢市金沢
5. 検査日: 2011年4月6日
6. 検査員: J. Adachi
7. 検査機関: Kimitsu Works
8. 検査費用: 100,000円
9. 検査報告書: 1001
10. 検査結果の通知: 1001

HEAD OFFICE
2-6-1, MARUNOUCHI, GEIYODA-KU, TOKYO 100-8071, JAPAN
TEL. 1-100-6011
FAX 1-100-6012
KIMITSU WORKS
1. KIMITSU, KUNITSU-CITY, CHEBA-PREF. 299-1141 JAPAN
TEL. 099-222-1111
FAX 099-222-1112

DOCUMENT No. _____

鋼材検査証明書
INSPECTION CERTIFICATE

TON EXCHANGER GROUP OF C-
TESTS 3.1)
(AS PER EN 10204 CERTIFICATE ON MATERIAL
CUSTOMER'S CONTROL
需要家管理查

発行年月日 : 2011-04-06
DATE OF ISSUE : 2011-04-06
1001 2***DM*****

```

1001 2##DM####
      ##CEW##
E3001P0701 E07

```

需要家管理客
CUSTOMER'S CONTROL No.

[illegible]

上記文品は御指定の銘柄はたばこに就いて製造を足清をを証明します。

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.

T. Adachi
 近江製板所 厚板管理グループリーダー
 Head of Department
 PLATEQUALITY CONTROL DEPT.
 KANAGAWA STEEL WORKS





PURCHASE ORDER #

2740

DATE _____

Julv 7. 2011

VENDOR

Edmonton Exchanger

<u>DATE REQUIRED</u>	<u>ASAP</u>
----------------------	-------------

ASAP

JOB NUMBERS

Stock Heads

VESSEL SER#

Stock Heads

Phone: (780) 632-7774

4901 Bruce Road Vegreville, Alberta T9C 1C3

[illegible]

1. The above items are to be formed to meet the requirements of ASME Section VII, Div. 1 UA 79 and all reference paragraphs.
2. Tack welds that are welded must use procedures and welders qualified to ASME Section IX
3. On all code required material, Markings must be accurately transferred to formed material or cut pieces.

Authorized
Signature





2728

DATE	Oct 11, 2011
VENDOR	V.E.G. Oilfield Supply

VENDOR **V.E.G. Oilfield Supply**

CONTACT	ALL
DATE REQUIRED	16" 3 Phase Separator

DATE REQUIRED 16" 3 Phase Separator

4901 Bruce Road Vegreville, Alberta T9C 1C3

Phone: (780) 632-7774

Authorized
Signature

1. The above items are to be formed to meet the requirements of ASME Section VII, Div. 1 USC 79(d).
2. Tack welds that are welded must use procedures and welders qualified to ASME Section IX
3. On all code required material, Markings must be accurately transferred to formed material or cut pieces.



2773

Oct 7, 2011

Exchange

ASAP

Stock Heads

Stock Heads

4901 Bruce Road Vegreville, Alberta T9C 1C3

Phone: (780) 632-7774

[illegible]

1. The above items are to be formed to meet the requirements of ASME Section VII, Div. 1 UA 79 and all reference paragraphs.

2. Tack welds that are welded must use procedures and welders qualified to ASME Section IX

3. On all code required material, Markings must be accurately transferred to formed material or cut pieces.

Authorized
Signature





12340

Wes Markowsky

FROM PURCHASE ORDER NUMBER

Phone: (780) 632-7774

REMARKS:



edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

5545-89 Street Edmonton, Alberta Canada T6E 5W9 www.edmontonexchanger.com tel 780.468.6722 • QC fax 780.466.4668 • sales fax 780.466.5155

Customer RJV GASFIELD LTD.

PO 2740

Work Order C90288 Date 2011/07/24 ColC# 26247 Page 1 of 2

Item#	Description	Qty	Heat#	Brinell Hardn.	Required Min Thk	Recorded Min Thk	Form. Pres.
H90288-1	HEAD(S) - Semi-Elliptical 2:1 - 0.0750" NOM (0.8125" MIN) X 16" OD (Material Spec: SA 516-70 Normalized) Conforms to NACE MR0175 / ISO 15156-2 2009 Annex A	5	355137-93540	MTR	0.8125"	0.8260"	1
		1	350405-05031	MTR	0.8125"	0.8300"	1
		3	350405-05031	MTR	0.8125"	0.8220"	1
		1	350405-05031	MTR	0.8125"	0.8290"	1
		4	354638-93547	MTR	0.8125"	0.8220"	1
		1	354638-93547	MTR	0.8125"	0.8400"	1
		3	7204628N-CA724877	151	0.8125"	0.8170"	1
		2	G3355-Y74800806	MTR	0.8125"	0.8250"	1
		2	JK566052-A084057-2	151	0.8125"	0.8160"	1
		2	7204842N-CA723359	145	0.8125"	0.8280"	1
		1	351658-35193	MTR	0.8125"	0.8450"	1
		1	350404-11955	MTR	0.8125"	0.8450"	1
		1	297059-20551	MTR	0.8125"	0.8300"	1
		2	351658-35146	MTR	0.8125"	0.8150"	1
		3	JK566053-A084058-2	151	0.8125"	0.8180"	1
		4	SB69538-PB86216402	138	0.8125"	0.8240"	1

JUL 29 2011



edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

5545-89 Street Edmonton, Alberta Canada T6E 5W9 www.edmontonexchanger.com tel 780.468.6722 • QC fax 780.468.4669 • sales fax 780.468.5155

Customer **RJV GASFIELD LTD.**

PO **2740**

Work Order **C90288** Date **2011/07/24** ColC# **26247** Page 2 of 2

Forming Procedure:

1. Hot Formed @ 1650F/899C and Air Cooled

Brinell Equipment: Newage Calibrated Pin
Brinell Hardness Tester

Supplementary Requirements

Normalized Material Identification Marking:

'MT' indicates normalized by the mill per ASME Code Section II, Part A, SA 20, Paragraph 13.1.1.

'GMT' indicates normalized by Edmonton Exchanger per ASME Code Section II, Part A, SA 20, Paragraph 13.1.2.

'GT' indicates normalized by Edmonton Exchanger per ASME Code Section VIII Division 1, UG-85 or ASME Code Section I, PG-77.4.

The item(s) listed above comply with the requirements of ASME Code Section I, PG-29, PG-81 and ASME Code Section VIII, Division 1, UCS-79(d), UG-79 & UG-81. All welders and procedures are qualified to ASME Code Section IX. Material being supplied conforms to the latest ASME Code Section II, Part A, 2010 Edition.

Supplementary Examination - Items

注 文 者 :	HANWA CO., LTD.
SHIPPER	
注文参照号:	REFERENCE No. 228-38561030
契約番号:	CONTRACT No. 7-831-H1-5-3-A101
商品名:	COMMODITY HOT ROLLED STEEL PLATES
規 格	
SPECIFICATION :	ASME SA-516 GRADE 70-E04-A05
文書番号:	DOCUMENT No.
需 要 家 :	CUSTOMER

新日本製鐵株式會社
Nippon Steel Corporation

本社 駐 千100-8071 東京都千代田区大手町二丁目6番3号
HEAD OFFICE 2-6-3, OTSUCHI, CHYODA-KU, TOKYO 100-8071, JAPAN
君津製鐵所 千289-1141 千葉県君津市君津1番地
KUMITSU WORKS 1, KUMITSU, KUMITSU-CITY, CHIBA-PREF. 299-1141 JAPAN

鋼材探傷

INSPECTION CERTIFICATE

CONTRACT NO. 7-831-H1-5-3-AT01

HOT ROLLED STEEL PLATES

规格: ASME SA-516 GRADE 70-E04-A05

SPECIFICATION	文 档 番 号	ASME SA-310 GRADE 10-204-A03
DOCUMENT No	需 要 家	CUSTOMER

证明书编号: P-88316 PAGE 44
 发行年月日: 2007-04-19
 DATE OF ISSUE: 1001 2***DM*****

客 戶 監 驗 號
CUSTOMER'S CONTROL No.

AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1]

[illegible]

注册

张限 NOTES

第 1 页

Journal Of Antenna Theory And Design

T. Chao Tuo P. Cheng Bottom T. 王延方 | Conclusion C : 底部方向 Through The Centre. R : 45° 方向 45Deg. to the Longitudinal Axis Z : 顶部方向 Transverse.

※2	GL	鍍設距離	Gage Length	A: 50mm 九形形鍍設外 Round, C: 70mm 九形形鍍設外 Rectangular, D: 70mm 九形形鍍設片 Round, E: 80mm 九形形鍍設片 Rectangular, F: 80mm 九形形鍍設片 Round, G: 200mm, H: 21.8, I: 5.85/S ₀ , K: 4, L/S ₀	
※3	RA	表面粗糙度	Surface Roughness	※4	合格 Acceptable
※4	RA	表面粗糙度	Surface Roughness	※5	形状公差 FULL Size, Z: 2.5mm, 3: 3.3mm, 4: 5.0mm, 5: 6.5mm, 7: 7.5mm, 8: 6.7mm, 9: 8.0mm, 10: 8.0mm, 11: 8.0mm, 12: 8.0mm, 13: 8.0mm, 14: 8.0mm, 15: 8.0mm, 16: 8.0mm, 17: 8.0mm, 18: 8.0mm, 19: 8.0mm, 20: 8.0mm, 21: 8.0mm, 22: 8.0mm, 23: 8.0mm, 24: 8.0mm, 25: 8.0mm, 26: 8.0mm, 27: 8.0mm, 28: 8.0mm, 29: 8.0mm, 30: 8.0mm, 31: 8.0mm, 32: 8.0mm, 33: 8.0mm, 34: 8.0mm, 35: 8.0mm, 36: 8.0mm, 37: 8.0mm, 38: 8.0mm, 39: 8.0mm, 40: 8.0mm, 41: 8.0mm, 42: 8.0mm, 43: 8.0mm, 44: 8.0mm, 45: 8.0mm, 46: 8.0mm, 47: 8.0mm, 48: 8.0mm, 49: 8.0mm, 50: 8.0mm, 51: 8.0mm, 52: 8.0mm, 53: 8.0mm, 54: 8.0mm, 55: 8.0mm, 56: 8.0mm, 57: 8.0mm, 58: 8.0mm, 59: 8.0mm, 60: 8.0mm, 61: 8.0mm, 62: 8.0mm, 63: 8.0mm, 64: 8.0mm, 65: 8.0mm, 66: 8.0mm, 67: 8.0mm, 68: 8.0mm, 69: 8.0mm, 70: 8.0mm, 71: 8.0mm, 72: 8.0mm, 73: 8.0mm, 74: 8.0mm, 75: 8.0mm, 76: 8.0mm, 77: 8.0mm, 78: 8.0mm, 79: 8.0mm, 80: 8.0mm, 81: 8.0mm, 82: 8.0mm, 83: 8.0mm, 84: 8.0mm, 85: 8.0mm, 86: 8.0mm, 87: 8.0mm, 88: 8.0mm, 89: 8.0mm, 90: 8.0mm, 91: 8.0mm, 92: 8.0mm, 93: 8.0mm, 94: 8.0mm, 95: 8.0mm, 96: 8.0mm, 97: 8.0mm, 98: 8.0mm, 99: 8.0mm, 100: 8.0mm, 101: 8.0mm, 102: 8.0mm, 103: 8.0mm, 104: 8.0mm, 105: 8.0mm, 106: 8.0mm, 107: 8.0mm, 108: 8.0mm, 109: 8.0mm, 110: 8.0mm, 111: 8.0mm, 112: 8.0mm, 113: 8.0mm, 114: 8.0mm, 115: 8.0mm, 116: 8.0mm, 117: 8.0mm, 118: 8.0mm, 119: 8.0mm, 120: 8.0mm, 121: 8.0mm, 122: 8.0mm, 123: 8.0mm, 124: 8.0mm, 125: 8.0mm, 126: 8.0mm, 127: 8.0mm, 128: 8.0mm, 129: 8.0mm, 130: 8.0mm, 131: 8.0mm, 132: 8.0mm, 133: 8.0mm, 134: 8.0mm, 135: 8.0mm, 136: 8.0mm, 137: 8.0mm, 138: 8.0mm, 139: 8.0mm, 140: 8.0mm, 141: 8.0mm, 142: 8.0mm, 143: 8.0mm, 144: 8.0mm, 145: 8.0mm, 146: 8.0mm, 147: 8.0mm, 148: 8.0mm, 149: 8.0mm, 150: 8.0mm, 151: 8.0mm, 152: 8.0mm, 153: 8.0mm, 154: 8.0mm, 155: 8.0mm, 156: 8.0mm, 157: 8.0mm, 158: 8.0mm, 159: 8.0mm, 160: 8.0mm, 161: 8.0mm, 162: 8.0mm, 163: 8.0mm, 164: 8.0mm, 165: 8.0mm, 166: 8.0mm, 167: 8.0mm, 168: 8.0mm, 169: 8.0mm, 170: 8.0mm, 171: 8.0mm, 172: 8.0mm, 173: 8.0mm, 174: 8.0mm, 175: 8.0mm, 176: 8.0mm, 177: 8.0mm, 178: 8.0mm, 179: 8.0mm, 180: 8.0mm, 181: 8.0mm, 182: 8.0mm, 183: 8.0mm, 184: 8.0mm, 185: 8.0mm, 186: 8.0mm, 187: 8.0mm, 188: 8.0mm, 189: 8.0mm, 190: 8.0mm, 191: 8.0mm, 192: 8.0mm, 193: 8.0mm, 194: 8.0mm, 195: 8.0mm, 196: 8.0mm, 197: 8.0mm, 198: 8.0mm, 199: 8.0mm, 200: 8.0mm, 201: 8.0mm, 202: 8.0mm, 203: 8.0mm, 204: 8.0mm, 205: 8.0mm, 206: 8.0mm, 207: 8.0mm, 208: 8.0mm, 209: 8.0mm, 210: 8.0mm, 211: 8.0mm, 212: 8.0mm, 213: 8.0mm, 214: 8.0mm, 215: 8.0mm, 216: 8.0mm, 217: 8.0mm, 218: 8.0mm, 219: 8.0mm, 220: 8.0mm, 221: 8.0mm, 222: 8.0mm, 223: 8.0mm, 224: 8.0mm, 225: 8.0mm, 226: 8.0mm, 227: 8.0mm, 228: 8.0mm, 229: 8.0mm, 230: 8.0mm, 231: 8.0mm, 232: 8.0mm, 233: 8.0mm, 234: 8.0mm, 235: 8.0mm, 236: 8.0mm, 237: 8.0mm, 238: 8.0mm, 239: 8.0mm, 240: 8.0mm, 241: 8.0mm, 242: 8.0mm, 243: 8.0mm, 244: 8.0mm, 245: 8.0mm, 246: 8.0mm, 247: 8.0mm, 248: 8.0mm, 249: 8.0mm, 250: 8.0mm, 251: 8.0mm, 252: 8.0mm, 253: 8.0mm, 254: 8.0mm, 255: 8.0mm, 256: 8.0mm, 257: 8.0mm, 258: 8.0mm, 259: 8.0mm, 260: 8.0mm, 261: 8.0mm, 262: 8.0mm, 263: 8.0mm, 264: 8.0mm, 265: 8.0mm, 266: 8.0mm, 267: 8.0mm, 268: 8.0mm, 269: 8.0mm, 270: 8.0mm, 271: 8.0mm, 272: 8.0mm, 273: 8.0mm, 274: 8.0mm, 275: 8.0mm, 276: 8.0mm, 277: 8.0mm, 278: 8.0mm, 279: 8.0mm, 280: 8.0mm, 281: 8.0mm, 282: 8.0mm, 283: 8.0mm, 284: 8.0mm, 285: 8.0mm, 286: 8.0mm, 287: 8.0mm, 288: 8.0mm, 289: 8.0mm, 290: 8.0mm, 291: 8.0mm, 292: 8.0mm, 293: 8.0mm, 294: 8.0mm, 295: 8.0mm, 296: 8.0mm, 297: 8.0mm, 298: 8.0mm, 299: 8.0mm, 300: 8.0mm, 301: 8.0mm, 302: 8.0mm, 303: 8.0mm, 304: 8.0mm, 305: 8.0mm, 306: 8.0mm, 307: 8.0mm, 308: 8.0mm, 309: 8.0mm, 310: 8.0mm, 311: 8.0mm, 312: 8.0mm, 313: 8.0mm, 314: 8.0mm, 315: 8.0mm, 316: 8.0mm, 317: 8.0mm, 318: 8.0mm, 319: 8.0mm, 320: 8.0mm, 321: 8.0mm, 322: 8.0mm, 323: 8.0mm, 324: 8.0mm, 325: 8.0mm, 326: 8.0mm, 327: 8.0mm, 328: 8.0mm, 329: 8.0mm, 330: 8.0mm, 331: 8.0mm, 332: 8.0mm, 333: 8.0mm, 334: 8.0mm, 335: 8.0mm, 336: 8.0mm, 337: 8.0mm, 338: 8.0mm, 339: 8.0mm, 340: 8.0mm, 341: 8.0mm, 342: 8.0mm, 343: 8.0mm, 344: 8.0mm, 345: 8.0mm, 346: 8.0mm, 347: 8.0mm, 348: 8.0mm, 349: 8.0mm, 350: 8.0mm, 351: 8.0mm, 352: 8.0mm, 353: 8.0mm, 354: 8.0mm, 355: 8.0mm, 356: 8.0mm, 357: 8.0mm, 358: 8.0mm,

支那の明國を亡ぼして、明國を臨時長陸の軍、并に叛國して、義士は、明國の世襲厚を、明國に、

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.

J. Adachi

若津製鐵所 厚板管理グループリーダー
GROUP MANAGER
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS





DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07		321444-001		1/-	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No. 70072			
DH		Final receiver		ARCELOR CANADA, BURLI		HOT ROLLED PLATES	
				EDMONTON STEEL, EDMON			
				A07.2 No. E10435-J1010-LG			
B02/ Steel design.		SA516-70					
B03 Any suppl. requirements		ASME-2A:04+A05					
		DIL-HUE-2:R21-2006-04-27					



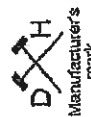
13721

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate Test No.	A09 Purchaser article number
01	1	0,7500	x	120,50000	x	480,00000	292660	89773-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297056	20557-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297056	20557-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297056	20558-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297056	20558-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297056	20558-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297056	20560-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297056	20560-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297056	20560-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297067	30527-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297067	30527-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297067	30527-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297067	30528-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297067	30528-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	297067	30528-03	ITEM 1
**	15					83700			
02	1	0,8750	x	96,50000	x	480,00000	297060	20452-01	ITEM 2
02	1	0,8750	x	96,50000	x	480,00000	297060	20452-02	ITEM 2
02	1	0,8750	x	96,50000	x	480,00000	297060	20452-03	ITEM 2
02	1	0,8750	x	96,50000	x	480,00000	297060	20618-01	ITEM 2
02	1	0,8750	x	96,50000	x	480,00000	297060	20618-02	ITEM 2
02	1	0,8750	x	96,50000	x	480,00000	297060	20619-01	ITEM 2
02	1	0,8750	x	96,50000	x	480,00000	297060	20619-02	ITEM 2

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. MUELLER
Test House Manager

Inspector's stamp
RECEIVED JUL 16 2007

KW 1



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

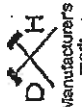
A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Achive of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07		321444-001		2/...	
MATERIAL TEST REPORT (MTR)				S01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No. 70072		HOT ROLLED PLATES	
DH		Final receiver		ARCELOR CANADA, BURLY			
				EDMONTON STEEL, EDMON			
B02/ Steel design.		SA516-70		A07.2 No. E10435-J1010-LG			
B03 Any suppl. requirements		ASME-2A:04+A05					
		DIL-HUE-2:R21-2006-04-27					

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B03 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297680	92858-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297680	92858-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297680	92858-03	ITEM 2
**	10				52140				
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20544-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20544-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20544-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20550-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20550-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20550-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20551-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20551-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20551-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20552-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20552-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20552-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20553-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20553-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20553-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20554-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20554-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20554-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20555-01	ITEM 3

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



B. MUELLER
Test House Manager

Inspector's stamp Date 12.07.07

KW 1



DILLINGER HÜTTE

Erklärung: siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ ACS Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	3/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DH	Final receiver	HOT ROLLED PLATES		
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-2A:04+A05				
requirements DIL-HUB-2:R21-2006-04-27				
		A07.1 No. 70072		
		A07.2 No. B10435-J1010-IG		

B01-B99 Description of the product

B14 Item No.	B03 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate Test No.	A09 Purchaser article number
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20555-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20555-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20556-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20556-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297059	20556-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20453-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20453-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20453-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20526-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20526-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000 x	6510	N	297060	20526-03	ITEM 3
**	30				195300				
**	55				331140				

B04 Product delivery condition

ITEM NO.: 01-03
 N: HT: 1670 GR.F +36 -27 GR.F
 SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
 COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-03
 STEEL DESIGNATION SA516 70 MSLTV SA516 60 MSLTV
 HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

A04	201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	Inspector's stamp	Date	KW
	QM-System: Certification as per ISO 9001		12.07.07	1
		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		

B. Müller
 B. MÜLLER
 Test House Manager



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A03 Manufacturer's order/ Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1.1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	4/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DH	Final receiver	HOT ROLLED PLATES		
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-2A:04+A05				
requirements DIL-HUE-2:R21-2006-04-27				
ARCELOR CANADA, BURLI		A07.1 No. 70072		
EDMONTON STEEL, EDMON		A07.2 No. E10435-J1010-LG		

C10-C29 Tensile test

B14 Item No.	B07.1 Heat No.	B05 Ref. plate/ Test No.	Reference (heat) treatment	C01	C02/ C01	C03 Temp. GF.F	C10 KSI RPOZ	C12 RM	C13	A % 10=8IN	C14-C15
01	292660	89773		K1 Q	RT	50,3	75,0	28,9			
01	297056	20557		K1 Q	RT	50,9	75,8	28,0			
01	297056	20558		K1 Q	RT	50,6	75,3	28,4			
01	297056	20560		K1 Q	RT	51,0	76,7	28,9			
01	297067	30527		K1 Q	RT	51,0	76,3	29,9			
01	297067	30528		K1 Q	RT	52,5	76,3	31,4			
02	297060	20452		K1 Q	RT	50,3	74,0	30,9			
02	297060	20618		K1 Q	RT	51,0	75,4	29,9			
02	297060	20619		K1 Q	RT	50,6	75,7	30,9			
02	297680	92858		K1 Q	RT	49,9	74,1	31,9			
03	297059	20544		K1 Q	RT	50,6	75,3	30,9			
03	297059	20550		K1 Q	RT	51,8	76,6	34,4			
03	297059	20551		K1 Q	RT	51,3	76,7	29,4			
03	297059	20552		K1 Q	RT	51,9	76,7	26,5			
03	297059	20553		K1 Q	RT	50,2	76,1	29,4			
03	297059	20554		K1 Q	RT	51,3	76,6	29,4			
03	297059	20555		K1 Q	RT	50,9	76,7	29,9			
03	297059	20556		K1 Q	RT	51,3	77,0	29,9			
03	297060	20453		K1 Q	RT	51,9	75,7	39,3			
03	297060	20526		K1 Q	RT	50,8	75,5	29,4			

A04	Z01/Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
Manufacturer's mark	QM-System: Certification as per ISO 9001	Inspector's stamp Date 12.07.07	KW 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A03 Manufacturer's order/ Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	5/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DE	Final receiver	HOT ROLLED PLATES		
B02/ Steel design. SA516-70				
B03 Any suppl. requirements				
ASME-2A: 04+A05				
DIL-HUE-2: R21-2006-04-27				
ARCELOR CANADA, BURLI		A07.1 No. 70072		
EDMONTON STEEL, EDMON		A07.2 No. E10435-J1010-IG		

C3D-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Ref. plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C35 C31 Individual values	C32 Mean value
01	292660	89773		K1	O	RT	HBW 10/3000	HB 145	145
01	297056	20557		K1	O	RT	HBW 10/3000	HB 147	146
01	297056	20558		K1	O	RT	HBW 10/3000	HB 146	149
01	297056	20560		K1	O	RT	HBW 10/3000	HB 147	148
01	297067	30527		K1	O	RT	HBW 10/3000	HB 150	146
01	297067	30528		K1	O	RT	HBW 10/3000	HB 145	145
02	297060	20452		K1	O	RT	HBW 10/3000	HB 148	149
02	297060	20618		K1	O	RT	HBW 10/3000	HB 148	148
02	297060	20619		K1	O	RT	HBW 10/3000	HB 151	148
02	297060	92858		K1	O	RT	HBW 10/3000	HB 142	151
03	297059	20544		K1	O	RT	HBW 10/3000	HB 151	144
03	297059	20550		K1	O	RT	HBW 10/3000	HB 147	149
03	297059	20551		K1	O	RT	HBW 10/3000	HB 149	147
03	297059	20552		K1	O	RT	HBW 10/3000	HB 148	149
03	297059	20553		K1	O	RT	HBW 10/3000	HB 148	147
03	297059	20554		K1	O	RT	HBW 10/3000	HB 150	148
03	297059	20555		K1	O	RT	HBW 10/3000	HB 148	147
03	297059	20556		K1	O	RT	HBW 10/3000	HB 150	148
03	297060	20453		K1	O	RT	HBW 10/3000	HB 148	148
03	297060	20526		K1	O	RT	HBW 10/3000	HB 149	149

A04	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
D/H Manufacturer's mark	QM-System: Certification as per ISO 9001	Inspector's stamp Date 12.07.07	KW 1
		B. MÜLLER Test House Manager	



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A03 Manufacturer's order/ Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	6/...
MATERIAL TEST REPORT (MTR)				

A05 Established inspecting body DIL	A06 Purchaser ARCELOR CANADA, BURLI	A07.1 No. 70072	A07.2 No. E10435-J1010-LG	A08 Product HOT ROLLED PLATES
--	--	-----------------	---------------------------	----------------------------------

B02/ Steel design. SA516-70	B03 Any suppl. ASME-2A:04+A05	B04 Requirements DIL-HUE-2:R21-2006-04-27
--------------------------------	----------------------------------	--

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rollplate/ Test No.	B03 Reference (heat) treatment	C01	C02/ C01	C23 Temp. Gr.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C45 Energy	C45 AV _{FT} LEF	C42 Individual values	C43 Mean value
01	292660	89773		K1	LV	-51	-51	CHP-V		AV	96	118	202
01	297056	20557		K1	LV	-51	-51	CHP-V		AV	99	109	114
01	297056	20558		K1	LV	-51	-51	CHP-V		AV	115	118	137
01	297056	20560		K1	LV	-51	-51	CHP-V		AV	114	119	122
01	297067	30527		K1	LV	-51	-51	CHP-V		AV	135	108	98
01	297067	30528		K1	LV	-51	-51	CHP-V		AV	180	184	182
02	297060	20452		K1	LV	-51	-51	CHP-V		AV	73	105	117
02	297060	20618		K1	LV	-51	-51	CHP-V		AV	150	145	148
02	297060	20619		K1	LV	-51	-51	CHP-V		AV	131	111	126
02	297680	92858		K1	LV	-51	-51	CHP-V		AV	86	117	169
03	297059	20544		K1	LV	-51	-51	CHP-V		AV	131	128	149
03	297059	20550		K1	LV	-51	-51	CHP-V		AV	128	107	110
03	297059	20551		K1	LV	-51	-51	CHP-V		AV	111	133	89
03	297059	20552		K1	LV	-51	-51	CHP-V		AV	184	137	115
03	297059	20553		K1	LV	-51	-51	CHP-V		AV	95	182	134
03	297059	20554		K1	LV	-51	-51	CHP-V		AV	93	181	115
03	297059	20555		K1	LV	-51	-51	CHP-V		AV	126	136	100
03	297059	20556		K1	LV	-51	-51	CHP-V		AV	97	90	181
03	297060	20453		K1	LV	-51	-51	CHP-V		AV	193	187	147
03	297060	20526		K1	LV	-51	-51	CHP-V		AV	97	145	159

A04	201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar	A01
	QM-System: Certification as per ISO 9001	 B. MUELLER Test House Manager	 Inspector's stamp Date 12.07.07 KW 1



DILLINGER HÜTTE

Erläuterungen siehe Ritzkollis/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A09 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07	321444-001	7/...
MATERIAL TEST REPORT (MTR)		B01 Product		
A05 Established inspecting body		HOT ROLLED PLATES		
DH	Final receiver			
B02/ Steel design.	SA516-70			
B03 Any suppl. requirements	ASME-2A:04+A05 DIL-HUB-2:R21-2006-04-27			

C70-C99 Chemical composition % - Heat analysis

	C70	C	Si	Mn	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
B07.2 Heat															
292660	Y	0,177	0,369	1,16	0,008	0,0003	0,0035	0,050	0,028	0,012	0,056	0,026	0,001	0,000	0,001
297056	Y	0,188	0,365	1,17	0,010	0,0007	0,0068	0,030	0,030	0,009	0,041	0,020	0,000	0,000	0,001
297059	Y	0,187	0,358	1,18	0,009	0,0009	0,0064	0,035	0,028	0,004	0,024	0,029	0,000	0,000	0,001
297060	Y	0,183	0,367	1,18	0,010	0,0007	0,0065	0,035	0,020	0,013	0,027	0,035	0,000	0,000	0,000
297067	Y	0,190	0,356	1,18	0,009	0,0007	0,0059	0,034	0,025	0,008	0,034	0,029	0,001	0,000	0,002
297680	Y	0,179	0,373	1,19	0,008	0,0010	0,0060	0,049	0,029	0,008	0,040	0,027	0,000	0,000	0,001

	C70	Ti	B	CA
B07.2 Heat				
292660	Y	0,002	0,0000	0,0010
297056	Y	0,003	0,0002	0,0021
297059	Y	0,002	0,0000	0,0014
297060	Y	0,003	0,0001	0,0016
297067	Y	0,002	0,0002	0,0010
297680	Y	0,002	0,0001	0,0026

C94 Heat analysis Carbon equivalent / Alloying restrictions

	FO-02=	FO-55=	FO-78=	FO-91=
B07.2 Heat				
292660	0,38	0,12	0,04	6,6
297056	0,39	0,10	0,03	6,2
297059	0,39	0,09	0,03	6,3
297060	0,39	0,10	0,05	6,4
297067	0,40	0,10	0,04	6,2
297680	0,39	0,10	0,04	6,6

A04	201/2012/03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
D/H Manufacturer's mark	QM-System: Certification as per ISO 9001	Inspector's stamp B. MUELLER Test House Manager	Date 12.07.07 KW 1



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/Sae reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A09 Manufacturer's order/ A08 Certificate No.		Sheet																																																																																																																																																																																
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07		321444-001		8/...																																																																																																																																																																																
MATERIAL TEST REPORT (MTR)																																																																																																																																																																																						
A05 Established inspecting body		A06 Purchaser		A07.1 No. 70072		A07.2 No. E10435-J1010-LG																																																																																																																																																																																
DE		Final receiver		ARCELOR CANADA, BURLI		EDMONTON STEEL, EDMON																																																																																																																																																																																
B02/ Steel design.		SA516-70																																																																																																																																																																																				
B03 Any suppl.		ASME-2A:04+A05																																																																																																																																																																																				
requirements		DIL-HUE-2:R21-2006-04-27																																																																																																																																																																																				
C95 Ladle treatment ITEM NO.: 01-03 HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL C70-C99 Chemical composition % - Product analysis <table border="1"> <thead> <tr> <th>B07.2 Heat</th> <th>B07.1 Test No.</th> <th>C</th> <th>SI</th> <th>MN</th> <th>P</th> <th>S</th> <th>N</th> <th>AL</th> <th>CU</th> <th>MO</th> <th>NI</th> <th>CR</th> <th>V</th> <th>NE</th> <th>SN</th> </tr> </thead> <tbody> <tr><td>292660</td><td>89773</td><td>K1 0,172</td><td>0,362</td><td>1,17</td><td>0,007</td><td>0,0005</td><td>0,0048</td><td>0,049</td><td>0,027</td><td>0,011</td><td>0,047</td><td>0,026</td><td>0,001</td><td>0,000</td><td>0,001</td></tr> <tr><td>297056</td><td>20560</td><td>K1 0,180</td><td>0,362</td><td>1,16</td><td>0,010</td><td>0,0012</td><td>0,0079</td><td>0,028</td><td>0,028</td><td>0,010</td><td>0,042</td><td>0,023</td><td>0,000</td><td>0,000</td><td>0,001</td></tr> <tr><td>297059</td><td>20553</td><td>K1 0,183</td><td>0,361</td><td>1,17</td><td>0,009</td><td>0,0009</td><td>0,0062</td><td>0,036</td><td>0,028</td><td>0,004</td><td>0,024</td><td>0,030</td><td>0,000</td><td>0,000</td><td>0,000</td></tr> <tr><td>297060</td><td>20618</td><td>K1 0,182</td><td>0,362</td><td>1,17</td><td>0,010</td><td>0,0004</td><td>0,0066</td><td>0,034</td><td>0,019</td><td>0,014</td><td>0,029</td><td>0,034</td><td>0,000</td><td>0,000</td><td>0,001</td></tr> <tr><td>297067</td><td>30528</td><td>K1 0,183</td><td>0,347</td><td>1,15</td><td>0,008</td><td>0,0006</td><td>0,0057</td><td>0,035</td><td>0,024</td><td>0,006</td><td>0,035</td><td>0,028</td><td>0,001</td><td>0,000</td><td>0,001</td></tr> <tr><td>297680</td><td>92858</td><td>K1 0,178</td><td>0,362</td><td>1,17</td><td>0,008</td><td>0,0010</td><td>0,0061</td><td>0,046</td><td>0,026</td><td>0,007</td><td>0,039</td><td>0,027</td><td>0,000</td><td>0,000</td><td>0,000</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>B07.2 Heat</th> <th>B07.1 Test No.</th> <th>Ti</th> <th>B</th> </tr> </thead> <tbody> <tr><td>292660</td><td>89773</td><td>K1 0,002</td><td>0,0002</td></tr> <tr><td>297056</td><td>20560</td><td>K1 0,003</td><td>0,0003</td></tr> <tr><td>297059</td><td>20553</td><td>K1 0,002</td><td>0,0000</td></tr> <tr><td>297060</td><td>20618</td><td>K1 0,003</td><td>0,0000</td></tr> <tr><td>297067</td><td>30528</td><td>K1 0,002</td><td>0,0001</td></tr> <tr><td>297680</td><td>92858</td><td>K1 0,002</td><td>0,0000</td></tr> </tbody> </table> C94 Product analysis Carbon equivalent / Alloying restrictions <table border="1"> <thead> <tr> <th>B07.2 Heat</th> <th>B07.1 Test No.</th> <th>C01</th> <th>K1 FO-02=</th> <th>0,38</th> <th>FO-55=</th> <th>0,11</th> </tr> </thead> <tbody> <tr><td>292660</td><td>89773</td><td>K1</td><td>FO-02=</td><td>0,38</td><td>FO-55=</td><td>0,10</td></tr> <tr><td>297056</td><td>20560</td><td>K1</td><td>FO-02=</td><td>0,39</td><td>FO-55=</td><td>0,09</td></tr> <tr><td>297059</td><td>20553</td><td>K1</td><td>FO-02=</td><td>0,39</td><td>FO-55=</td><td>0,10</td></tr> <tr><td>297060</td><td>20618</td><td>K1</td><td>FO-02=</td><td>0,39</td><td>FO-55=</td><td>0,10</td></tr> </tbody> </table>								B07.2 Heat	B07.1 Test No.	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NE	SN	292660	89773	K1 0,172	0,362	1,17	0,007	0,0005	0,0048	0,049	0,027	0,011	0,047	0,026	0,001	0,000	0,001	297056	20560	K1 0,180	0,362	1,16	0,010	0,0012	0,0079	0,028	0,028	0,010	0,042	0,023	0,000	0,000	0,001	297059	20553	K1 0,183	0,361	1,17	0,009	0,0009	0,0062	0,036	0,028	0,004	0,024	0,030	0,000	0,000	0,000	297060	20618	K1 0,182	0,362	1,17	0,010	0,0004	0,0066	0,034	0,019	0,014	0,029	0,034	0,000	0,000	0,001	297067	30528	K1 0,183	0,347	1,15	0,008	0,0006	0,0057	0,035	0,024	0,006	0,035	0,028	0,001	0,000	0,001	297680	92858	K1 0,178	0,362	1,17	0,008	0,0010	0,0061	0,046	0,026	0,007	0,039	0,027	0,000	0,000	0,000	B07.2 Heat	B07.1 Test No.	Ti	B	292660	89773	K1 0,002	0,0002	297056	20560	K1 0,003	0,0003	297059	20553	K1 0,002	0,0000	297060	20618	K1 0,003	0,0000	297067	30528	K1 0,002	0,0001	297680	92858	K1 0,002	0,0000	B07.2 Heat	B07.1 Test No.	C01	K1 FO-02=	0,38	FO-55=	0,11	292660	89773	K1	FO-02=	0,38	FO-55=	0,10	297056	20560	K1	FO-02=	0,39	FO-55=	0,09	297059	20553	K1	FO-02=	0,39	FO-55=	0,10	297060	20618	K1	FO-02=	0,39	FO-55=	0,10
B07.2 Heat	B07.1 Test No.	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NE	SN																																																																																																																																																																							
292660	89773	K1 0,172	0,362	1,17	0,007	0,0005	0,0048	0,049	0,027	0,011	0,047	0,026	0,001	0,000	0,001																																																																																																																																																																							
297056	20560	K1 0,180	0,362	1,16	0,010	0,0012	0,0079	0,028	0,028	0,010	0,042	0,023	0,000	0,000	0,001																																																																																																																																																																							
297059	20553	K1 0,183	0,361	1,17	0,009	0,0009	0,0062	0,036	0,028	0,004	0,024	0,030	0,000	0,000	0,000																																																																																																																																																																							
297060	20618	K1 0,182	0,362	1,17	0,010	0,0004	0,0066	0,034	0,019	0,014	0,029	0,034	0,000	0,000	0,001																																																																																																																																																																							
297067	30528	K1 0,183	0,347	1,15	0,008	0,0006	0,0057	0,035	0,024	0,006	0,035	0,028	0,001	0,000	0,001																																																																																																																																																																							
297680	92858	K1 0,178	0,362	1,17	0,008	0,0010	0,0061	0,046	0,026	0,007	0,039	0,027	0,000	0,000	0,000																																																																																																																																																																							
B07.2 Heat	B07.1 Test No.	Ti	B																																																																																																																																																																																			
292660	89773	K1 0,002	0,0002																																																																																																																																																																																			
297056	20560	K1 0,003	0,0003																																																																																																																																																																																			
297059	20553	K1 0,002	0,0000																																																																																																																																																																																			
297060	20618	K1 0,003	0,0000																																																																																																																																																																																			
297067	30528	K1 0,002	0,0001																																																																																																																																																																																			
297680	92858	K1 0,002	0,0000																																																																																																																																																																																			
B07.2 Heat	B07.1 Test No.	C01	K1 FO-02=	0,38	FO-55=	0,11																																																																																																																																																																																
292660	89773	K1	FO-02=	0,38	FO-55=	0,10																																																																																																																																																																																
297056	20560	K1	FO-02=	0,39	FO-55=	0,09																																																																																																																																																																																
297059	20553	K1	FO-02=	0,39	FO-55=	0,10																																																																																																																																																																																
297060	20618	K1	FO-02=	0,39	FO-55=	0,10																																																																																																																																																																																
A04		ZD/1202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.				QM-System: Certification as per ISO 9001																																																																																																																																																																																
		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar		ADB		Inspector's stamp																																																																																																																																																																																
Manufacturer's mark		Test House Manager		Date 12.07.07		KW 1																																																																																																																																																																																



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Shoot	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		264364-11.07.07		321444-001		9	
MATERIAL TEST REPORT (MTR)				801 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No. 70072			
DZ		Final receiver		EDMONTON STEEL, EDMONTON		HOT ROLLED PLATES	
B02/ Steel design.		SA516-70		A07.2 No. E10435-J1010-LG			
B03 Any suppl.		ASME-2A: 04+A05					
requirements.		DIL-HUE-2:R21-2006-04-27					
C94 Product analysis Carbon equivalent / Alloying restrictions							
C01							
Heat							
B07.2							
Test No.							
297067 30528							
K1 FO-02= 0,39 FO-55= 0,09							
297680 92858							
K1 FO-02= 0,38 FO-55= 0,10							
C94 Carbon equivalent formula / Alloying restrictions							
FO-02 = C+(MN/6)+(CR+MO+V)/5+(NI+CU)/15							
FO-55 = CU+MO+NI+CR							
FO-78 = CR+MO							
FO-91 = MN/C							
D01 Marking and Identification, surface appearance, shape and dimensional properties							
ITEM NO.: 01-03							
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS							
SURFACE							
AS PER ASME-SA20							
THICKNESS							
AS PER ASME-SA20							
LENGTH AND WIDTH							
AS PER ASME-SA20							
FLATNESS							
AS PER 1/2-ASME-SA20							
A04							
Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke		AG der Dillinger Hüttenwerke		A01	
QM-System: Certification as per ISO 9001		Postfach 1580, D-66748 Dillingen/Saar		Inspection department		Date 12.07.07	
DxH		ADH		Inspector's stamp		XW 1	
Manufacturer's mark		B. HUELLER		Test House Manager			



No.10040967

收 货 单 位: ORDER NO. 8155-V
合 同 编 号: DTWYWCV-54
技 术 条 件: No.:



舞阳钢铁有限公司
WUYANG IRON AND STEEL CO., LTD.

质 量 证 明 书
QUALITY CERTIFICATE

地 址: 中国河南舞阳 邮 编: 462500 电 话: (Tel): 0375-8111264 传 真: (Fax): 0375-4111260
TECHNICAL CONDITION: ASTM A516 Gr. 70/ASME AS16 Gr. 70/SECTION 2/2001-1-2001-3

QR/C07E05

证 明 书 号: 07K3439
证 明 书 号: 07K3439
证 明 书 号: 07K3439
证 明 书 号: 07K3439



14028

钢号 STEEL GRADE	炉号 HEAT NO.	批号 BATCH NO.	尺寸 DIMENSIONS Inches	块 PC	重量 WEIGHT LBS	化 学 成 分 0.001% CHEMICAL COMPOSITION												拉力试验 TENSILE	弯曲试验 BEND TEST	冲击试验 IMPACT	超声波检测 ULTRASONIC TEST	硬度 HB						
						C	Si	Mn	P	S	Cr	Al	Mo	Ti	Cu	Nb	Ni	V	N	B	Ca	Ra (%)	Rm (%)	AZ (%)	方 向 方 向	方 向	方 向	
AS16Gr.70/AS16Gr.70	7204628N	CA724877	0.875*96.500*480.0 00	1	5.214	190	320	1100	8	3	50	33	9	3	80	17	160	3	5.0	0.5		62	83	30.0		-50.8	131	0
AS16Gr.70/AS16Gr.70	7203648N	CA727726	0.875*96.500*480.0 00	1	5.214	160	260	1120	10	3	60	26	19	2	80	1	40	5	4.8	0.2		54	76	36.0		-50.8	111	0
AS16Gr.70/AS16Gr.70	7206179N	CA729348	0.875*96.500*480.0 00	1	5.214	160	310	1100	9	3	80	24	22	3	90	1	210	4	4.9	0.4		58	75	36.0		-50.8	128	0
以下空白																												

合计: TOTAL:	3	块 PCS	13.642	吨 MT	试 样 状 态: CONDITION OF TEST PIECE:	供 货 状 态: CONDITION OF SUPPLY:	正火 NORMALIZED	LOT:
备注: 1. 本钢产品质量证明书为产品质量证明书, 涂改无效。 2. 证书复印件无效, 涂改无效。 3. 本钢产品质量证明书为产品质量证明书, 涂改无效。 4. 本钢产品质量证明书为产品质量证明书, 涂改无效。 5. 本钢产品质量证明书为产品质量证明书, 涂改无效。 6. 本钢产品质量证明书为产品质量证明书, 涂改无效。 7. 本钢产品质量证明书为产品质量证明书, 涂改无效。 8. 本钢产品质量证明书为产品质量证明书, 涂改无效。 9. 本钢产品质量证明书为产品质量证明书, 涂改无效。 10. 本钢产品质量证明书为产品质量证明书, 涂改无效。 11. 本钢产品质量证明书为产品质量证明书, 涂改无效。 12. 本钢产品质量证明书为产品质量证明书, 涂改无效。 13. 本钢产品质量证明书为产品质量证明书, 涂改无效。 14. 本钢产品质量证明书为产品质量证明书, 涂改无效。 15. 本钢产品质量证明书为产品质量证明书, 涂改无效。 16. 本钢产品质量证明书为产品质量证明书, 涂改无效。 17. 本钢产品质量证明书为产品质量证明书, 涂改无效。 18. 本钢产品质量证明书为产品质量证明书, 涂改无效。 19. 本钢产品质量证明书为产品质量证明书, 涂改无效。 20. 本钢产品质量证明书为产品质量证明书, 涂改无效。 21. 本钢产品质量证明书为产品质量证明书, 涂改无效。 22. 本钢产品质量证明书为产品质量证明书, 涂改无效。 23. 本钢产品质量证明书为产品质量证明书, 涂改无效。 24. 本钢产品质量证明书为产品质量证明书, 涂改无效。 25. 本钢产品质量证明书为产品质量证明书, 涂改无效。 26. 本钢产品质量证明书为产品质量证明书, 涂改无效。 27. 本钢产品质量证明书为产品质量证明书, 涂改无效。 28. 本钢产品质量证明书为产品质量证明书, 涂改无效。 29. 本钢产品质量证明书为产品质量证明书, 涂改无效。 30. 本钢产品质量证明书为产品质量证明书, 涂改无效。 31. 本钢产品质量证明书为产品质量证明书, 涂改无效。 32. 本钢产品质量证明书为产品质量证明书, 涂改无效。 33. 本钢产品质量证明书为产品质量证明书, 涂改无效。 34. 本钢产品质量证明书为产品质量证明书, 涂改无效。 35. 本钢产品质量证明书为产品质量证明书, 涂改无效。 36. 本钢产品质量证明书为产品质量证明书, 涂改无效。 37. 本钢产品质量证明书为产品质量证明书, 涂改无效。 38. 本钢产品质量证明书为产品质量证明书, 涂改无效。 39. 本钢产品质量证明书为产品质量证明书, 涂改无效。 40. 本钢产品质量证明书为产品质量证明书, 涂改无效。 41. 本钢产品质量证明书为产品质量证明书, 涂改无效。 42. 本钢产品质量证明书为产品质量证明书, 涂改无效。 43. 本钢产品质量证明书为产品质量证明书, 涂改无效。 44. 本钢产品质量证明书为产品质量证明书, 涂改无效。 45. 本钢产品质量证明书为产品质量证明书, 涂改无效。 46. 本钢产品质量证明书为产品质量证明书, 涂改无效。 47. 本钢产品质量证明书为产品质量证明书, 涂改无效。 48. 本钢产品质量证明书为产品质量证明书, 涂改无效。 49. 本钢产品质量证明书为产品质量证明书, 涂改无效。 50. 本钢产品质量证明书为产品质量证明书, 涂改无效。 51. 本钢产品质量证明书为产品质量证明书, 涂改无效。 52. 本钢产品质量证明书为产品质量证明书, 涂改无效。 53. 本钢产品质量证明书为产品质量证明书, 涂改无效。 54. 本钢产品质量证明书为产品质量证明书, 涂改无效。 55. 本钢产品质量证明书为产品质量证明书, 涂改无效。 56. 本钢产品质量证明书为产品质量证明书, 涂改无效。 57. 本钢产品质量证明书为产品质量证明书, 涂改无效。 58. 本钢产品质量证明书为产品质量证明书, 涂改无效。 59. 本钢产品质量证明书为产品质量证明书, 涂改无效。 60. 本钢产品质量证明书为产品质量证明书, 涂改无效。 61. 本钢产品质量证明书为产品质量证明书, 涂改无效。 62. 本钢产品质量证明书为产品质量证明书, 涂改无效。 63. 本钢产品质量证明书为产品质量证明书, 涂改无效。 64. 本钢产品质量证明书为产品质量证明书, 涂改无效。 65. 本钢产品质量证明书为产品质量证明书, 涂改无效。 66. 本钢产品质量证明书为产品质量证明书, 涂改无效。 67. 本钢产品质量证明书为产品质量证明书, 涂改无效。 68. 本钢产品质量证明书为产品质量证明书, 涂改无效。 69. 本钢产品质量证明书为产品质量证明书, 涂改无效。 70. 本钢产品质量证明书为产品质量证明书, 涂改无效。 71. 本钢产品质量证明书为产品质量证明书, 涂改无效。 72. 本钢产品质量证明书为产品质量证明书, 涂改无效。 73. 本钢产品质量证明书为产品质量证明书, 涂改无效。 74. 本钢产品质量证明书为产品质量证明书, 涂改无效。 75. 本钢产品质量证明书为产品质量证明书, 涂改无效。 76. 本钢产品质量证明书为产品质量证明书, 涂改无效。 77. 本钢产品质量证明书为产品质量证明书, 涂改无效。 78. 本钢产品质量证明书为产品质量证明书, 涂改无效。 79. 本钢产品质量证明书为产品质量证明书, 涂改无效。 80. 本钢产品质量证明书为产品质量证明书, 涂改无效。 81. 本钢产品质量证明书为产品质量证明书, 涂改无效。 82. 本钢产品质量证明书为产品质量证明书, 涂改无效。 83. 本钢产品质量证明书为产品质量证明书, 涂改无效。 84. 本钢产品质量证明书为产品质量证明书, 涂改无效。 85. 本钢产品质量证明书为产品质量证明书, 涂改无效。 86. 本钢产品质量证明书为产品质量证明书, 涂改无效。 87. 本钢产品质量证明书为产品质量证明书, 涂改无效。 88. 本钢产品质量证明书为产品质量证明书, 涂改无效。 89. 本钢产品质量证明书为产品质量证明书, 涂改无效。 90. 本钢产品质量证明书为产品质量证明书, 涂改无效。 91. 本钢产品质量证明书为产品质量证明书, 涂改无效。 92. 本钢产品质量证明书为产品质量证明书, 涂改无效。 93. 本钢产品质量证明书为产品质量证明书, 涂改无效。 94. 本钢产品质量证明书为产品质量证明书, 涂改无效。 95. 本钢产品质量证明书为产品质量证明书, 涂改无效。 96. 本钢产品质量证明书为产品质量证明书, 涂改无效。 97. 本钢产品质量证明书为产品质量证明书, 涂改无效。 98. 本钢产品质量证明书为产品质量证明书, 涂改无效。 99. 本钢产品质量证明书为产品质量证明书, 涂改无效。 100. 本钢产品质量证明书为产品质量证明书, 涂改无效。								

质量证明书按照 GB 247-2006 规定
PERSON-IN-CHARGE OF QUALITY EXAMINATION: 吴永斌
注: 1. 本钢产品质量证明书为产品质量证明书, 涂改无效。
2. 证书复印件无效, 涂改无效。
NOTE: 1. This certificate will not be valid unless marked with special seal of quality certification.
2. The duplicated copy of the certificate shall be invalid. Corrected area must be marked with special seal of quality control inspection.



日期: 月 日 年
DATE: 18MAY 2008





舞阳钢铁有限责任公司

WUYANG IRON AND STEEL CO., LTD

地址: 中国河南省舞钢市 Add: Wugang City, Henan Pro., P. R. China 462500

TO:	Wirth Steel Shanghai	E-mail:	wgleco66@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL:	0086-375-8111899
FAX:	021-64153908	PAX:	0086-375-8112634
DATE:	February 12, 2008	PAGE:	1/1

RE: Certificate for PO#8155-V

CERTIFICATION

We hereby certify that all the liquid steel for A516-70 under PO#8155-V has been vacuum degassed and all the plates have been produced as per ASTM/ASME A/SA516-70(Edition 2004-A06). And the Quality Certificates are issued as per EN10204-3.1 (Edition 2004).

Wuyang Iron And Steel Co., Ltd.

February 12, 2008

For and on behalf of
WUYANG IRON AND STEEL CO., LTD

Authorised signature(s)



FROM :

PHONE NO. :

SEP. 15 2007 06:57PM P1

舞阳钢铁有限公司

PAGE 01

舞阳钢铁有限责任公司
WUYANG IRON AND STEEL CO., LTD

地址: 中国河南省舞钢市 Add: Wuyang City, Henan Pro., P. R. China 462500
TO: Wirth Steel Shanghai E-mail: wjleco66@vip.163.com
ATTN: Mr. Gong Chenghua TEL: 0086-375-8111899
FAX: 021-64153908 FAX: 0086-375-8112634
DATE: September 14, 2007 PAGE: 1+1

RE: Certificate

CERTIFICATE

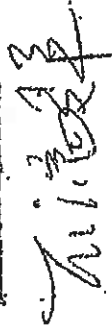
We hereby confirmed the condition of test piece in our MTR is normalized per ASTM A516-70/ASME SA516-70 spec requirement, which is same as the plate delivery condition - Normalized for the plates we sold to Wirth Steel.

Wuyang Iron And Steel Co., Ltd.

September 14, 2007

For and on behalf of
WUYANG IRON AND STEEL CO., LTD

Authorized signature(s)



收 货 单	位:	ORDER NO. 8155-Y
CUSTOMER	:	
合 同 编 号:		
CONTRACT	No.:	DTWYWCV-54
技 术 条 件:		

W
舞阳钢铁有限公司
WUYANG IRON AND
STEEL CO., LTD.

OR/C07E05

证明号: _____
 CERTIFICATE NO.: _____
 许可证号: _____
 EXEQUATUR NO.: _____
 车号: _____
 TRAIN NO.: _____


质量证明书
 WUYANG IRON AND STEEL CO. LTD.
 地址: 中国河南省舞阳
 ADDRESS: WUYANG, HENAN, CHINA
 邮编: 462500
 电话(Tel): 0375-8111264
 传真(Fax): 0375-8111269
 ZIP CODE: 462500
 舞阳钢铁有限公司 限责任公司

地址：中国河南郑州

ADDRESS: WUGANG, HENAN CHINA
PO BOX 200 (+2003A)
ZIP CODE: 462500
TEL (Fax): 0375-8111269

ADDRESS: WUGANG, HENAN CHINA
3RD EDITION 2001+2003A

[illegible]

試樣狀態: CONDITION OF TEST PIECE:

正火

1507

1. PRIME QUALITY, NEWLY PRODUCED, HOT ROLLED KILLED STEEL P. V. O. PLATES TO ASTM A516 GR. TO/ASTM A516 OR TO EN10028-3. 2. TOLERANCES TO ± 20 , FLATNESS TOLERANCE AS PER 1/2 OF A50. 3. LIQUID STEEL HAS BEEN PROCESSED BY ADDING Ca-SI. 4. ALL PLATES WERE ULTRASONICALLY INSPECTED ACCORDING TO ASTM A435. 5. INVOICING OF NOMINAL THEORETICAL WEIGHT OF 7.85 GMS/CM². 6. COLOR CODE: YELLOW/WHITE/WHITE COLOR STRIPE CODE. 7. INFORMATION ON STEEL PLATE NORMALISING CYCLE: HOT CH. 400°C-540°C. 8. QUALITY CERTIFICATE ISSUED AS PER EN10028-3. 9. B. 5.5-5.6. 10. COOLING MEANS: AIR COOLING. 11. SUBSIZES/MS. (12) SOAKING TIME: 10-12 HRS. (13) SOAKING TEMPERATURE: 900°C-910°C. (14) SOAKING TIME: 10-12 HRS. (15) SOAKING TEMPERATURE: 900°C-910°C. (16) SOAKING TIME: 10-12 HRS. (17) SOAKING TEMPERATURE: 900°C-910°C. (18) SOAKING TIME: 10-12 HRS. (19) SOAKING TEMPERATURE: 900°C-910°C. (20) SOAKING TIME: 10-12 HRS. (21) SOAKING TEMPERATURE: 900°C-910°C. (22) SOAKING TIME: 10-12 HRS. (23) SOAKING TEMPERATURE: 900°C-910°C. (24) SOAKING TIME: 10-12 HRS. (25) SOAKING TEMPERATURE: 900°C-910°C. (26) SOAKING TIME: 10-12 HRS. (27) SOAKING TEMPERATURE: 900°C-910°C. (28) SOAKING TIME: 10-12 HRS. (29) SOAKING TEMPERATURE: 900°C-910°C. (30) SOAKING TIME: 10-12 HRS. (31) SOAKING TEMPERATURE: 900°C-910°C. (32) SOAKING TIME: 10-12 HRS. (33) SOAKING TEMPERATURE: 900°C-910°C. (34) SOAKING TIME: 10-12 HRS. (35) SOAKING TEMPERATURE: 900°C-910°C. (36) SOAKING TIME: 10-12 HRS. (37) SOAKING TEMPERATURE: 900°C-910°C. (38) SOAKING TIME: 10-12 HRS. (39) SOAKING TEMPERATURE: 900°C-910°C. (40) SOAKING TIME: 10-12 HRS. (41) SOAKING TEMPERATURE: 900°C-910°C. (42) SOAKING TIME: 10-12 HRS. (43) SOAKING TEMPERATURE: 900°C-910°C. (44) SOAKING TIME: 10-12 HRS. (45) SOAKING TEMPERATURE: 900°C-910°C. (46) SOAKING TIME: 10-12 HRS. (47) SOAKING TEMPERATURE: 900°C-910°C. (48) SOAKING TIME: 10-12 HRS. (49) SOAKING TEMPERATURE: 900°C-910°C. (50) SOAKING TIME: 10-12 HRS. (51) SOAKING TEMPERATURE: 900°C-910°C. (52) SOAKING TIME: 10-12 HRS. (53) SOAKING TEMPERATURE: 900°C-910°C. (54) SOAKING TIME: 10-12 HRS. (55) SOAKING TEMPERATURE: 900°C-910°C. (56) SOAKING TIME: 10-12 HRS. (57) SOAKING TEMPERATURE: 900°C-910°C. (58) SOAKING TIME: 10-12 HRS. (59) SOAKING TEMPERATURE: 900°C-910°C. (60) SOAKING TIME: 10-12 HRS. (61) SOAKING TEMPERATURE: 900°C-910°C. (62) SOAKING TIME: 10-12 HRS. (63) SOAKING TEMPERATURE: 900°C-910°C. (64) SOAKING TIME: 10-12 HRS. (65) SOAKING TEMPERATURE: 900°C-910°C. (66) SOAKING TIME: 10-12 HRS. (67) SOAKING TEMPERATURE: 900°C-910°C. (68) SOAKING TIME: 10-12 HRS. (69) SOAKING TEMPERATURE: 900°C-910°C. (70) SOAKING TIME: 10-12 HRS. (71) SOAKING TEMPERATURE: 900°C-910°C. (72) SOAKING TIME: 10-12 HRS. (73) SOAKING TEMPERATURE: 900°C-910°C. (74) SOAKING TIME: 10-12 HRS. (75) SOAKING TEMPERATURE: 900°C-910°C. (76) SOAKING TIME: 10-12 HRS. (77) SOAKING TEMPERATURE: 900°C-910°C. (78) SOAKING TIME: 10-12 HRS. (79) SOAKING TEMPERATURE: 900°C-910°C. (80) SOAKING TIME: 10-12 HRS. (81) SOAKING TEMPERATURE: 900°C-910°C. (82) SOAKING TIME: 10-12 HRS. (83) SOAKING TEMPERATURE: 900°C-910°C. (84) SOAKING TIME: 10-12 HRS. (85) SOAKING TEMPERATURE: 900°C-910°C. (86) SOAKING TIME: 10-12 HRS. (87) SOAKING TEMPERATURE: 900°C-910°C. (88) SOAKING TIME: 10-12 HRS. (89) SOAKING TEMPERATURE: 900°C-910°C. (90) SOAKING TIME: 10-12 HRS. (91) SOAKING TEMPERATURE: 900°C-910°C. (92) SOAKING TIME: 10-12 HRS. (93) SOAKING TEMPERATURE: 900°C-910°C. (94) SOAKING TIME: 10-12 HRS. (95) SOAKING TEMPERATURE: 900°C-910°C. (96) SOAKING TIME: 10-12 HRS. (97) SOAKING TEMPERATURE: 900°C-910°C. (98) SOAKING TIME: 10-12 HRS. (99) SOAKING TEMPERATURE: 900°C-910°C. (100) SOAKING TIME: 10-12 HRS. (101) SOAKING TEMPERATURE: 900°C-910°C. (102) SOAKING TIME: 10-12 HRS. (103) SOAKING TEMPERATURE: 900°C-910°C. (104) SOAKING TIME: 10-12 HRS. (105) SOAKING TEMPERATURE: 900°C-910°C. (106) SOAKING TIME: 10-12 HRS. (107) SOAKING TEMPERATURE: 900°C-910°C. (108) SOAKING TIME: 10-12 HRS. (109) SOAKING TEMPERATURE: 900°C-910°C. (110) SOAKING TIME: 10-12 HRS. (111) SOAKING TEMPERATURE: 900°C-910°C. (112) SOAKING TIME: 10-12 HRS. (113) SOAKING TEMPERATURE: 900°C-910°C. (114) SOAKING TIME: 10-12 HRS. (115) SOAKING TEMPERATURE: 900°C-910°C. (116) SOAKING TIME: 10-12 HRS. (117) SOAKING TEMPERATURE: 900°C-910°C. (118) SOAKING TIME: 10-12 HRS. (119) SOAKING TEMPERATURE: 900°C-910°C. (120) SOAKING TIME: 10-12 HRS. (121) SOAKING TEMPERATURE: 900°C-910°C. (122) SOAKING TIME: 10-12 HRS. (123) SOAKING TEMPERATURE: 900°C-910°C. (124) SOAKING TIME: 10-12 HRS. (125) SOAKING TEMPERATURE: 900°C-910°C. (126) SOAKING TIME: 10-12 HRS. (127) SOAKING TEMPERATURE: 900°C-910°C. (128) SOAKING TIME: 10-12 HRS. (129) SOAKING TEMPERATURE: 900°C-910°C. (130) SOAKING TIME: 10-12 HRS. (131) SOAKING TEMPERATURE: 900°C-910°C. (132) SOAKING TIME: 10-12 HRS. (133) SOAKING TEMPERATURE: 900°C-910°C. (134) SOAKING TIME: 10-12 HRS. (135) SOAKING TEMPERATURE: 900°C-910°C. (136) SOAKING TIME: 10-12 HRS. (137) SOAKING TEMPERATURE: 900°C-910°C. (138) SOAKING TIME: 10-12 HRS. (139) SOAKING TEMPERATURE: 900°C-910°C. (140) SOAKING TIME: 10-12 HRS. (141) SOAKING TEMPERATURE: 900°C-910°C. (142) SOAKING TIME: 10-12 HRS. (143) SOAKING TEMPERATURE: 900°C-910°C. (144) SOAKING TIME: 10-12 HRS. (145) SOAKING TEMPERATURE: 900°C-910°C. (146) SOAKING TIME: 10-12 HRS. (147) SOAKING TEMPERATURE: 900°C-910°C. (148) SOAKING TIME: 10-12 HRS. (149) SOAKING TEMPERATURE: 900°C-910°C. (150) SOAKING TIME: 10-12 HRS. (151) SOAKING TEMPERATURE: 900°C-910°C. (152) SOAKING TIME: 10-12 HRS. (153) SOAKING TEMPERATURE: 900°C-910°C. (154) SOAKING TIME: 10-12 HRS. (155) SOAKING TEMPERATURE: 900°C-910°C. (156) SOAKING TIME: 10-12 HRS. (157) SOAKING TEMPERATURE: 900°C-910°C. (158) SOAKING TIME: 10-12 HRS. (159) SOAKING TEMPERATURE: 900°C-910°C. (160) SOAKING TIME: 10-12 HRS. (161) SOAKING TEMPERATURE: 900°C-910°C. (162) SOAKING TIME: 10-12 HRS. (163) SOAKING TEMPERATURE: 900°C-910°C. (164) SOAKING TIME: 10-12 HRS. (165) SOAKING TEMPERATURE: 900°C-910°C. (166) SOAKING TIME: 10-12 HRS. (167) SOAKING TEMPERATURE: 900°C-910°C. (168) SOAKING TIME: 10-12 HRS. (169) SOAKING TEMPERATURE: 900°C-910°C. (170) SOAKING TIME: 10-12 HRS. (171) SOAKING TEMPERATURE: 900°C-910°C. (172) SOAKING TIME: 10-12 HRS. (173) SOAKING TEMPERATURE: 900°C-910°C. (174) SOAKING TIME: 10-12 HRS. (175) SOAKING TEMPERATURE: 900°C-910°C. (176) SOAKING TIME: 10-12 HRS. (177) SOAKING TEMPERATURE: 900°C-910°C. (178) SOAKING TIME: 10-12 HRS. (179) SOAKING TEMPERATURE: 900°C-910°C. (180) SOAKING TIME: 10-12 HRS. (181) SOAKING TEMPERATURE: 900°C-910°C. (182) SOAKING TIME: 10-12 HRS. (183) SOAKING TEMPERATURE: 900°C-910°C. (184) SOAKING TIME: 10-12 HRS. (185) SOAKING TEMPERATURE: 900°C-910°C. (186) SOAKING TIME: 10-12 HRS. (187) SOAKING TEMPERATURE: 900°C-910°C. (188) SOAKING TIME: 10-12 HRS. (189) SOAKING TEMPERATURE: 900°C-910°C. (190) SOAKING TIME: 10-12 HRS. (191) SOAKING TEMPERATURE: 900°C-910°C. (192) SOAKING TIME: 10-12 HRS. (193) SOAKING TEMPERATURE: 900°C-910°C. (194) SOAKING TIME: 10-12 HRS. (195) SOAKING TEMPERATURE: 900°C-910°C. (196) SOAKING TIME: 10-12 HRS. (197) SOAKING TEMPERATURE: 900°C-910°C. (198) SOAKING TIME: 10-12 HRS. (199) SOAKING TEMPERATURE: 900°C-910°C. (200) SOAKING TIME: 10-12 HRS. (201) SOAKING TEMPERATURE: 900°C-910°C. (202) SOAKING TIME: 10-1

Quality certificate according to EN 10204:2004/3.1

PERSON - IN - CHARGE OF QUALITY EXAMINATION :

2. 本质量证明书无产品质量证明专用章无效。

2. 正书复印件无效, 涂改处必须加盖判定证明专用章。

NOTE : 1. This certificate will not be valid unless marked with special seal of quality certification.

2. The duplicated copy of the certificate shall be invalid. Corrected area must be marked with special seal of quality control inspection.

判 定 员:	武发孚
审 核 员:	尚 玲
QUALITY CONTROL INSPECTOR:	
QUALITY CONTROL CHECKER:	

DATE: MONTH DAY YEAR



FEB. 12 2008 11:56AM P1

DATE: _____ PAGE: _____

PAGE 01

舞阳钢铁有限责任公司
WUYANG IRON AND STEEL CO., LTD



地址: 中国河南省舞钢市 Add: Wugang City, Henan Pro., P. R. China 462500

TO:	Wirth Steel Shanghai	E-mail:	wglecoo88@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL:	0086-375-8111899
FAX:	021-64153908	PAX:	0086-375-8112634
DATE:	February 12, 2008	PAGE:	1/1

RE: Certificate for PO#8155-V

CERTIFICATION

We hereby certify that all the liquid steel for A516-70 under PO#8155-V has been vacuum degassed and all the plates have been produced as per ASTM/ASME A/SA516-70(Edition 2004-A06). And the Quality Certificates are issued as per EN10204-3.1 (Edition 2004).

Wuyang Iron And Steel Co., Ltd.

February 12, 2008

For and on behalf of
WUYANG IRON AND STEEL CO., LTD

Authorised signature(s)



FROM :

PHONE NO. :

SEP. 15 2007 06:57PM P1

WUYANG IRON AND STEEL CO., LTD.

PAGE 01

舞阳钢铁有限责任公司
WUYANG IRON AND STEEL CO., LTD

地址: 中国河南省舞钢市 Add: Wuyang City, Henan Pro., P. R. China 462500
TO: Wirth Steel Shanghai E-mail: wglecoco66@vip.163.com
ATTN: Mr. Gong Changhai TEL: 0086-375-8111899
FAX: 021-64153908 FAX: 0086-375-8112634
DATE: September 14, 2007 PAGE: 1+1

RE: Certificate

CERTIFICATE

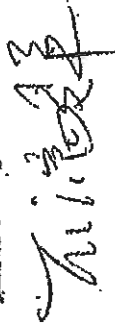
We hereby confirmed the condition of test piece in our MTR is normalized per ASTM A516-70/ASME SA516-70 spec requirement, which is same as the plate delivery condition - Normalized for the plates we sold to Wirth Steel.

Wuyang Iron And Steel Co., Ltd.

September 14, 2007

For and on behalf of
WUYANG IRON AND STEEL CO., LTD.

Authorized signature(s)



POSCO Mill Test Certificate/검사증명서

Certificate No./증명서번호 : 100504-PPSA-002-006
Date of Issue/발행일자 : May., 11, 2010

Order No./계약번호 : 0004096698

PO No./주문번호 : E10707
(ASME2004 EDITION)

Supplier/주요자 : DAE WOO INTERNATIONAL CORP.

Commodity/품명 : HR STEEL PLATE (EN10204 3.1B)

Customer/고객사 : EDMONTON EXCHANGER

Spec & Type/규격 : ASME SA516-70 AND SA 20 (ASME2004 EDITION)

Size/치수	Product No. 제품번호	Quantity 수량	Weight 중량 (kg) (LBS)	Heat No. 재간번호	P O S I T I O N	Tensile/인장시험 Y _P TS EL (KSI) (%)	Impact/충격시험 V Notch, 50°F Energy SF (FT-LBS) (%)	Chemical Composition/화학성분(%)	C	Si	Mn	P	S	Cr	Ni	B	Cu	Mo	Nb	Tr	V	Al
0.625"X120.5"X480"	PB8675901-5904	4	18,600 41,004	SB69534	T	54.7 80.2 29	1:136 2:153 3:150 A:147	1749 366 1164 64 23 2 27 27 94 94 2 2 3 3 3 3 3 3 3 3 3 3	4	3	3	4	4	2	2	4	3	2	3	3	3	
*** Sub: Total (020) ***		30	139,500 (kg)			307,540 (LBS)																
*** HEAT TREATMENT *** Normalized : 891°C 30min.																						
0.875"X120.5"X480"	PB86515901-5903	3	19,536 43,088	SB69534	T	51.5 77.3 30	1:159 2:149 3:151 A:153	1757 340 1174 63 25 2 25 25 96 96 2 2 3 3 3 3 3 3 3 3 3 3	1	1	1	1	1	1	1	1	1	1	1	18	34	
0.875"X120.5"X480"	PB86515901	1	6,512 14,356	SB69534	T	50.8 78.6 28	1:134 2:125 3:132 A:131	1757 340 1174 63 25 2 25 25 96 96 2 2 3 3 3 3 3 3 3 3 3 3	1	1	1	1	1	1	1	1	1	1	1	18	34	
0.875"X120.5"X480"	PB86515903	1	6,512 14,356	SB69534	T	50.8 78.6 28	1:134 2:125 3:132 A:131	1757 340 1174 63 25 2 25 25 96 96 2 2 3 3 3 3 3 3 3 3 3 3	1	1	1	1	1	1	1	1	1	1	1	18	34	
0.875"X120.5"X480"	PB86515901-9103	3	19,536	SB69534	T	52.2 78.9 30	1:143	1757 340 1174 63 25 2 25 25 96 96 2 2 3 3 3 3 3 3 3 3 3 3	1	1	1	1	1	1	1	1	1	1	1	18	34	

* Position : T : Top, M : Middle, B : Bottom
* Tensile Test : Direction : Transverse, Gauge Length : 200mm (Rectangular)
YP Method : 0.2% offset
* Impact Test : Direction : 1/4T Longitudinal, T.L.R (Trans Longitude Ratio)
* Division : 1/4T Analysis
* Chemical Composition Unit : 2x1100, 3x11000, 4x110000, 5x1100000
* Tr : It is within the standard range and include trace element.
* Supply Condition : As-Rolled unless otherwise Heat Treated.

A) This material was produced under a quality system manual Rev.7 dated Sept.12.2008 and PQG01 Rev.0 dated-JUL.01.2006 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3800 and/or KEPIC MNAV SNA4300.
B) No repair welding was performed to the products.
C) The product numbers listed on this test report identifies the material.
We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.
This material is fine grained steel.
* This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

M.S. JANG

POSCO Pohang Works, 5 Dongchon-dong, Nam-gu, Pohang-si, Gyeongsangbuk-do, 790-785, Korea

Chief of material testing section Man Soo Jang

POSCO Mill Test Certificate/검사증명서

Certificate No./증명서번호: 100504-PPSA-002-007
Date of Issue/발행일자: May. 11, 2010

Order No./계약번호: 0004096698

PO No./주문번호: E10707
(ASME2004 EDITION)

Supplier/주원자: DAE WOO INTERNATIONAL CORP.

Commodity/종양: HR STEEL PLATE (EN10204 3.1B)

Customer/고객사: EDMONTON EXCHANGER

Spec & Type/규격: ASME SA516-70 AND SA 20(ASME2004 EDITION)

Size/지수	Product No. 제품번호	Quantity 수량	Weight 중량 (KG) (LBS)	Heat No. 제강번호	P S T I O N	Tensile/인장시험		Impact/충격시험 V.Nelch 50°F Energy (FT-LBS) (%)	Chemical Composition/화학성분(%)														D I S T R I B U T I O N	
						YP (KSI)	TS (KSI) (%)		C	Si	Mn	P	S	Cr	Ni	B	Cu	Mo	Nb	Ti	V	Sol-Al		
0.875"x120.5"x480"	PB66957301-7303	3	43,068	SB669534	T	51.5	78.5	29	2136 3147 A142	L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
0.875"x120.5"x480"	PB66950101-0103	3	43,068	SB669534	T	51.9	78.9	29	2133 3159 A142	L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
0.875"x120.5"x480"	PB66950001-0003	3	43,068	SB669534	T	51.2	78.2	30	2128 3156 A121	L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
0.875"x120.5"x480"	PB66216401-6403	3	43,068	SB669538	T	51.2	78.0	30	2159 2150 3141 A150	L	1749	366	1164	64	23	2	27	Tr	91	Tr	Tr	2	18	35

* Position : T : Top, M : Middle, B : Bottom.

* Tensile Test : Direction : Transversal, Gauge Length : 200mm (Rectangular),
YP Method : 0.2% offset

* Impact Test : Direction : 1/4T Longitudinal,
T.L.R (Trans Longitude Ratio)

* Division : L:Ladle Analysis

* Chemical Composition Unit : 2x1/100, 3x2/1000, 4x1/10000, 5x1/100000

* Tr : It is within the standard range and include trace element.

* Supply Condition : As-Rolled unless otherwise Heat Treated.

A) This material was produced under a quality system manual Rev.7 dated Sept.12,2008 and PQS01 Rev.0 dated JUL.01.2006 audited and approved by customer as conforming to the requirements of ASME Sec. III, NCA-3600 and/or KEPIC MINNAI SNA4300.

B) No repair-welding was performed to the products.

C) The product numbers listed on this test report identifies the material.

- We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

This material is fine grained steel.

* This Mill Test Certificate cannot be copied for any purpose.

* Position: T: Top, M: Middle, B: Bottom.
* Tensile Test: Direction: Transversal, Gauge Length: 200mm (Rectangular).
YP Method: 0.2% offset
* Impact Test: Direction: 1/4T Longitudinal
T.L.R (Transverse Longitudinal Ratio)
* Division: L: Ladle Analysis
* Chemical Composition Unit: 2x1/100, 3x2/1000, 4x1/10000, 5x1/100000
* Tr: It is within the standard range and include trace element.
* Supply Condition: As-Rolled unless otherwise Heat Treated.

A) This material was produced under a quality system manual Rev.7 dated Sept.12,2008 and PQS01 Rev.0 dated JUL.01,2006 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3900 and/or KEPIC MNAI SNA4300.
B) No repair welding was performed to the products.
C) The product numbers listed on this test report identifies the material.
- We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.
This material is fine grained steel.
* This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

M.S. JANG

POSCO Pohang Works, 5 Dongchon-dong, Nam-gu, Pohang-si, Gyeongsangbuk-do, 790-785, Korea

Chief of material testing section Man Soo, Jang



POSCO Mill Test Certificate/검사증명서

Certificate No./증명서번호: 100504-PPSA-002-008
Date of Issue/발행일자: May, 11, 2010

Order No./계약번호: 0004096698

PO No./주문번호: E10707

Supplier/주요자: DAE WOO INTERNATIONAL CORP.

Commodity/품명: HR STEEL PLATE (EN10204 3.1B)

Customer/고객사: EDMONTON EXCHANGER

Spec & Type/규격: ASME SA516-70 AND SA 20(ASME2004EDITION)

Size/지수	Product No. 제품번호	Quantity 수량	Weight 중량 (kg) (LBS)	Heat No. 재강번호	Tensile/인장시험		Impact/충격시험 V Notch -50°F Energy (FT-LBS) (%)	Chemical Composition/화학성분(%)																
					YP (KSI)	TS (KSI)		EL (%)	C	Si	Mn	P	S	Cr	Ni	B	Cu	Mo	Nb	Ti	V	Se-Al		
1"x96.5"x480"	P886155501-5503	3	17,874 39,405	S886529	53.1	78.5	32	1103	1872	342	1170	99	23	2	26	Tr	140	Tr	1	1	17	28		
1"x96.5"x480"	P886155501-5503	3	17,874 39,405	S886529	53.1	78.5	32	1103	1872	342	1170	99	23	2	26	Tr	140	Tr	1	1	17	28		
1"x96.5"x480"	P886155501-5503	3	17,874 39,405	S886529	53.1	78.5	32	1103	1872	342	1170	99	23	2	26	Tr	140	Tr	1	1	17	28		
1"x96.5"x480"	P886155501-5503	3	17,874 39,405	S886529	53.1	78.5	32	1103	1872	342	1170	99	23	2	26	Tr	140	Tr	1	1	17	28		
1"x96.5"x480"	P886155501-5503	3	17,874 39,405	S886529	53.1	78.5	32	1103	1872	342	1170	99	23	2	26	Tr	140	Tr	1	1	17	28		
A) This material was produced under a quality system manual Rev.7 dated Sept.12.2008 and PQG01 Rev.0 .. dated JUL.01.2008 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3300 and (c) KEPIC MNA SNA4300. B) No repair welding was performed to the products. C) The product numbers listed on this test report identifies the material. - We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order. - This Mill Test Certificate cannot be copied for any purpose.																								

Surveyor To:

M.S. JANG

POSCO Pohang Works, 5 Dongchon-dong, Nam-gu, Pohang-si, Gyeongsangbuk-do, 790-785, Korea

Chief of material testing section Man Soo, Jang



* Position: T: Top, M: Middle, B: Bottom.
* Tensile Test: Direction: Transversal; Gauge Length: 200mm (Rectangular).
* Impact Test: 0.2% offset
* Impact Test: Direction: 1/4T Longitudinal, T.L.R (Trans Longitude Ratio)
* Division - L: Lade Analysis
* Chemical Composition Unit: -2x1/100, -5x1/1000, -4x1/10000, -5x1/100000
* Tr: It is within the standard range and include trace element.
* Supply Condition: As-rolled unless otherwise Heat Treated.

A) This material was produced under a quality system manual Rev.7 dated Sept.12.2008 and PQS01 Rev.0 dated: JUL 01.2008 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3800 and (or) KEPIC MINA/ SNA4300.
B) No repair-welding was performed to the products.
C) The product numbers listed on this report identifies the material.
- We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.
This material is fine grained steel.
* This Mill Test Certificate cannot be copied for any purpose.

posco Mill Test Certificate/검사증명서

Certificate No./증명서번호 : 100504-PPSA-002-016
Date of Issue/발행일자 : May., 11, 2010

Order No./계약번호 : 0004096698

PO No./주문번호 : E10707
(ASME2004 EDITION)

Supplier/주조사 : DAE WOO INTERNATIONAL CORP.

Commodity/품명 : HR STEEL PLATE (EN10204 3.1B)

Customer/고객사 : EDMONTON EXCHANGER

Spec & Type/규격 : ASME SA516-70 AND SA 20(ASME2004 EDITION)

Size/치수	Product No. 제품번호	Quantity 수량	Weight 중량 (kg) (LBS)	Heat No. 제강번호	Tensile/인장시험 Y.P. TS EL (KSI) (%)	Impact/충격시험 V notch -50°F Energy SF (FT-LBS) (%)	Chemical Composition/화학성분(%)
1.5"x12"x480"	PB66180301	1	11,207 24,707	SB66534	50.3 75.1 32	1:130 2:135 3:134 A:133	C 17.57 Si 340 Mn 1174 P 63 S 25 Cr 2 Ni 25 B Tr 96 Cu 96 Mo 96 Nb 1 Ti 1 V 15 Sol-Al 34
*** Sub Total (080') ***		12	134,484 (kg)		296,482 (LBS)		
*** HEAT TREATMENT ***			Normalized : 891°C 71min.				
*** Lot Total ***		170	1,004,694 (kg)		2,214,938 (LBS)		
*** Grade Total ***		170	1,004,694 (kg)		2,214,938 (LBS)		
*** Grade Total ***		170	1,004,694 (kg)		2,214,938 (LBS)		

*** LOT NO *** VACUUM DEGASSED ***

CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5

NOT APPROVED

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

EDS

ED

* LOT NO == VACUUM DEGASSED
CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5



* Position - T : Top, M : Middle, B : Bottom.
* Tensile Test, Direction : Transversal, Gauge Length : 200mm (Rectangular),
Y.P Method : 0.2% offset
* Impact Test, Direction : 1/4T Longitudinal,
T.L.R (Trans Longitudinal Relia)
* Division - L : Ladle Analysis
* Chemical Composition Unit : 2x1/100, 4x1/10000, 5x1/100000
* Tr : It is within the standard range and include trace element.
* Supply Condition : As-Rolled unless otherwise Heat Treated.

A) This material was produced under a quality system manual Rev.7 dated Sept.12, 2008 and PQ001 Rev.0 dated JUL.01, 2005 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3800 and (or) KEPIC MANA/ SNA4300.
B) No repair welding was performed to the products.
C) The product numbers listed on this test report identifies the material
- We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.
This material is fine grained steel.
* This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

M.S. JANG

POSCO Pohang Works, 5 Dongchoon-dong, Nam-gu, Pohang-si, Gyeongsangbuk-do, 790-785, Korea

Chief of material testing section

Man Soo, Jang





△역량이 세상을 움직입니다
www.posco.co.kr

(135-777) POSCO Center 892, Daechi 4-dong, Gangnam-gu, Seoul, Korea, Gangnam P.O. Box 777
Tel (82-2) 3457 - 0783 / Fax (82-2) 3457 - 1980 / Sender : Jae, Hek, Ok

To : EDMONTON EXCHANGER GROUP OF COMPANIES
(5545 89 STREET EDMONTON ALBERTA CANADA T6E 5W9)

Attn.: MR. ERNEST REIMER

Cc :

Subject : Confirmation letter for Nb, Mo, B composition with Order No 0004096698,
0004005387

This letter is to certify that the Chemical composition of Nb, Mo, B marked as "Tr" on the Mill
Test Certificates for steel plates supplied to Edmonton Exchanger with order No 0004096698-010
~080, 0004005387-010 means the following

Order No	Heat No	C (%)	Nb (%)	B (ppm)	Mo (%)
0004096698-010 ~ 080 0004005387-010	SB62646	0.179	0.001	1	0.01
	SB62742	0.1841	0.001	0	0
	SB62745	0.1788	0.001	0	0.01
	SB69529	0.1872	0.001	0	0
	SB69532	0.1771	0.001	0	0
	SB69534	0.1757	0.001	0	0
	SB69538	0.1749	0	0	0
	SB71274	0.1792	0.001	0	0

If you have any further problems in this project, please do not hesitate and contact us.

Tel : 82-2-3457-0783, M.P:82-80-11-9377-8336

Thanks in advance with best regards

Yours sincerely,,

Date : 28th . June . 2010

POSCO

CEO Jooh Yang - Chung

posco

#1, Gaecheon, Pohang-City,
Gyeong Sang Buk-Do, Korea





DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	1/...
MATERIAL TEST REPORT (MTR)		B01 Product HOT ROLLED PLATES		
A05 Established inspecting body		SA20-S5		
DH	A06 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10551-J1010-ER		
	Final receiver EDMONTON STEEL, EDMON	A07.2 No.		
B02 Steel design. SAS16-70.				
B03 Any suppl. requirements	ASME-II-A:07+A09 DIL-HUE-2:R30-2010-01-31			



15711

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
			INCH		KG				
01	1	0,6250	x 120,50000	x 480,00000	4650	N	348840	11315-01	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350041	63961-01	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350041	63961-02	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	17648-01	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	17648-02	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	17648-03	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	17724-01	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	17724-02	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	17724-03	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	20921-01	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	20921-02	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	20921-03	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	21295-01	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	21295-02	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	21295-03	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	21306-02	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	21306-03	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	21322-01	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	21322-02	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350399	21322-03	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350405	39539-01	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350405	39539-02	
01	1	0,6250	x 120,50000	x 480,00000	4650	N	350405	39594-02	

A04	20/02/2010 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 17.09.10	BM 1
QMS-System: Certification as per ISO 9001		B. BALDAUF Test House Manager		



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No./ Date of dispatch 369429-17.09.10	A08/ Manufacturer's order/ A03 Certificate No. 357359-002	Sheet 2/...
A05 Established inspecting body DIL		B01 Product HOT ROLLED PLATES		
B02/ Steel design. SA516-70		A07.1 No. ED10551-J1010-ER		
B03 Any suppl. requirements		A07.2 No. SA20-S5		
DIL-HUB-2-R30-2010-01-31		EDMONTON STEEL, EDMONTON		
		EDMONTON STEEL, EDMONTON		

B01-B99 Description of the product.									
B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A03 Purchaser article number
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39694-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39715-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39774-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39774-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39774-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39799-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39799-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39799-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39959-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39959-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39959-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39965-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39965-02	
**	36				167400				
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15513-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15513-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15513-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15526-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15526-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15526-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15608-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15610-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15610-02	

A04	ZU1702/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A07
	QM-System: Certification as per ISO 9001		
Manufacturer's mark	B. BALDAUF Test House Manager	Inspector's stamp	Date 17.09.10 BM 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02	INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004	A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
	INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991			
	MATERIAL TEST REPORT (MTR)			
		369429-17.09.10	357359-002	3/...

A05 Established inspecting body DH	A06 Purchaser	EDMONTON STEEL, EDMON	A07.1 No.	ED10551-J1010-ER	B01 Product HOT ROLLED PLATES
	Final receiver	EDMONTON STEEL, EDMON	A07.2 No.		

302/ Steel design. SA516-70		SA20-S5	
B03 Any suppl. ASME-II-A:07+A09			
requirements DIL-HUE-2:R30-2010-01-31			

B01-B99 Description of the product

B14 Item No.	B03 Number of pieces	B08 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350401	15610-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350401	15626-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350401	15626-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350401	15645-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350401	15645-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350401	15645-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350402	15399-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350402	15399-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350402	15399-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350405	39714-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350405	39946-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350405	39946-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350405	39946-03	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350405	39963-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350405	39963-02	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350405	40537-01	
02	1	0,7500 X	120,50000 X	480,00000	5580 N		350405	40537-02	
**	27				150660				
03	1	0,7500 X	150,00000 X	480,00000	6946 N		350403	13199-01	
03	1	0,7500 X	150,00000 X	480,00000	6946 N		350403	13199-02	
03	1	0,7500 X	150,00000 X	480,00000	6946 N		350403	13199-03	
03	1	0,7500 X	150,00000 X	480,00000	6946 N		350403	13308-01	

A04 Z01702/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark



B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ AUS Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	4/...
MATERIAL TEST REPORT (MTR)				

A05 Established inspecting body	A08 Purchaser	A07.1 No.	A07.2 No.
DE	EDMONTON STEEL, EDMON	ED10551-J1010-ER	
	Final receiver		
	EDMONTON STEEL, EDMON		

B02/ Steel design. SA516-70

B03 Any suppl. ASME-II-A:07+A09

requirements DIL-HUE-2:R30-2010-01-31

SA20-SS

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N	N	350403	13308-02	
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N	N	350403	13308-03	
**	6				41676				
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11964-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11964-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11964-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11979-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11979-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	11979-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12013-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12013-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12013-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12280-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12280-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12638-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12638-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350403	12638-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350404	11955-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350404	11955-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350404	11955-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350405	05031-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	350405	05031-02	
**	19				123690				

A04 Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

	QM-System: Certification as per ISO 9001		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Date 17.09.10	BM 1
		B. BALDAUF Test House Manager	Inspector's stamp		



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A03 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	5/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMONTON A07.1 No. ED10551-J1010-BR	A01 Product HOT ROLLED PLATES		
Final receiver EDMONTON STEEL, EDMONTON A07.2 No. SA20-S5				
B02 Steel design SA516-70				
B03 Any suppl. requirements	ASME-II-A:07+A09 DIL-EUE-2:R30-2010-01-31			

B01-899 Description of the product

B14 Item No.	B08 Number of plates	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Host No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
			INCH		KG				
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N	N	350402	14854-01	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N	N	350402	14854-02	
**	2				16208				
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06356-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06356-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06357-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06357-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06357-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06943-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06943-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06943-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	07812-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	07812-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	07812-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	07813-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	07813-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	07813-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	10672-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	10672-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	10672-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	11097-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	11097-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	11097-03	

A04 Z01/20203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



QM-System: Certification as per ISO 9001

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection departmentB. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		6/...	
MATERIAL TEST REPORT (MTR)				B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON	
B02/ Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A: 07-A09					
		DIL-HUE-2: R30-2010-01-31					

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05063-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05063-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05063-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05064-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05064-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05064-03	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05065-01	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05065-02	
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350405	05065-03	
**	29				172811				
***	119				672445				

B04 Product delivery condition

ITEM NO.: 01-05,07-08
 N: HT: 1670 GR.F +36 -27 GR.F
 SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
 COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-05,07-08
 STEEL DESIGNATION SA516 70 MTLTY SA516 60 MTLTY
 HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

A04		201/20203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
		QM-System: Certification as per ISO 9001				Inspector's stamp	
				B. BALDAUF Test House Manager		Date 17.09.10	
						BM 1	



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	7/...
MATERIAL TEST REPORT (NTR)				
A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10551-J1010-ER	B01 Product HOT ROLLED PLATES	
Final receiver EDMONTON STEEL, EDMON				
B02/ Steel design. SA516-70				
B03 Any suppl. requirements				
DIL-HUB-2:R30-2010-01-31		SA20-S5		

B07-B99 Further information about the product

ITEM NO.: 01-05,07-08

THICKNESS REDUCTION RATIO ≥ 3.0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 Item No.	B07.1 Ref. plate/ Test No.	B05 Reference (heat) treatment	C01 Coz. C03 C01 Temp. GR.F.	C10 C11 KSI	C12 RM	C13	A %	C14-C15
				RP02			LO-MIN	
01	348840-11315	K1 Q	RT	51,3	77,6		27	
01	350041 63961	K1 Q	RT	47,9	73,1		29	
01	350399 17648	K1 Q	RT	51,3	76,6		27	
01	350399 17724	K1 Q	RT	50,5	76,3		28	
01	350399 20921	K1 Q	RT	49,9	75,7		25	
01	350399 21295	K1 Q	RT	50,8	76,4		26	
01	350399 21306	K1 Q	RT	50,5	75,8		26	
01	350399 21322	K1 Q	RT	50,3	76,3		28	
01	350405 39539	K1 Q	RT	50,9	75,8		29	
01	350405 39694	K1 Q	RT	50,5	75,0		28	
01	350405 39715	K1 Q	RT	50,2	75,4		31	
01	350405 39774	K1 Q	RT	49,7	75,3		27	
01	350405 39799	K1 Q	RT	49,6	75,0		28	
01	350405 39959	K1 Q	RT	50,3	75,8		28	
01	350405 39965	K1 Q	RT	48,7	74,7		28	
02	350401 15513	K1 Q	RT	46,7	73,7		27	
02	350401 15526	K1 Q	RT	48,3	73,5		28	
02	350401 15608	K1 Q	RT	49,0	74,2		26	
02	350401 15610	K1 Q	RT	46,7	73,5		30	
02	350401 15626	K1 Q	RT	49,2	74,2		28	

A04 ZD1/2002/03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



QM-System: Certification as per ISO 9001

B. Baldauf

B. BALDAUF

Test House Manager



Inspector's stamp

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10

BM 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204-2:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		8/...	
MATERIAL TEST REPORT (NTR)				B01 Product			
A05 Established inspecting body		A08 Purchaser		EDMONTON STEEL, EDMON		HOT ROLLED PLATES	
DH		Final receiver		EDMONTON STEEL, EDMON			
B02 Steel design. SA516-70		A07.1 No.		ED10551-J1010-ER			
B03 Any suppl. requirements		A07.2 No.		SA20-SS			
DIL-HUE-2:R30-2010-01-31							

C10-C29 Tensile test											
B14 B07.2 Item No.	B07.1 Heat No.	B05 Rolled/ Test No.	Reference (heat treatment)	C01 C01	C02 C02	C03 Temp. GRF	C10 KSI RP02	C11 KSI RP02	C12 RM	C13 A %	C14-C15 LO-8IN
02	350401	15645		KL Q	RT	RT	48,9		74,0	29	
02	350402	15169		KL Q	RT	RT	49,2		75,1	28	
02	350402	15399		KL Q	RT	RT	50,5		75,3	28	
02	350405	39714		KL Q	RT	RT	49,6		75,3	26	
02	350405	39946		KL Q	RT	RT	49,0		75,4	28	
02	350405	39963		KL Q	RT	RT	48,6		74,5	27	
02	350405	40537		KL Q	RT	RT	46,5		73,7	27	
03	350403	13199		KL Q	RT	RT	50,0		75,5	27	
03	350403	13308		KL Q	RT	RT	49,3		75,3	26	
04	350403	11964		KL Q	RT	RT	49,9		74,1	30	
04	350403	11979		KL Q	RT	RT	49,2		74,7	29	
04	350403	12013		KL Q	RT	RT	49,0		74,0	29	
04	350403	12280		KL Q	RT	RT	49,9		74,1	27	
04	350403	12638		KL Q	RT	RT	50,0		74,5	28	
04	350404	11955		KL Q	RT	RT	49,6		74,7	29	
04	350405	05031		KL Q	RT	RT	48,9		74,8	30	
05	350402	14854		KL Q	RT	RT	49,7		75,1	27	
07	350404	06356		KL Q	RT	RT	49,3		75,0	28	
07	350404	06357		KL Q	RT	RT	50,0		74,1	29	
07	350404	06943		KL Q	RT	RT	49,7		74,1	30	
07	350404	07812		KL Q	RT	RT	49,6		74,4	30	
07	350404	07813		KL Q	RT	RT	50,3		74,0	30	
07	350404	10672		KL Q	RT	RT	50,2		74,2	30	

2017/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark



AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar.

Inspection department

B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM

A01



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Shoot	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		9/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMONTON		A07.1 No. ED10551-J1010-ER	
DH		Final receiver		EDMONTON STEEL, EDMONTON		A07.2 No.	
B02/ Steel design.		SA516-70					
B03 Any suppl.		ASME-II-A:07+A09					
requirements		DIL-HUE-2:R30-2010-01-31					

C10-C29 Tensile test

S14 B07.2 Item Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 Temp. GRF	C02 Temp. GRF	C10 Temp. GRF	C11 KSI RPM2	C12 RM	C13 A % LO-EN	C14-C15
07 350404	11097	KL Q	RT	48,3			73,8	30	
07 350405	05063	KL Q	RT	50,2			74,7	29	
07 350405	05064	KL Q	RT	50,5			74,4	28	
07 350405	05065	KL Q	RT	50,0			74,1	31	

C30-C39 Hardness test

B14 B07.2 Item Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 Temp. GRF	C02 Temp. GRF	C30 Temp. GRF	C31 Method of test	C35 Individual values	C32 Mean value
01 348840	11315		KL	O	RT HBW 10/3000	HB 147	149	148
01 350041	63961		KL	O	RT HBW 10/3000	HB 141	143	142
01 350399	17648		KL	O	RT HBW 10/3000	HB 146	147	146
01 350399	17724		KL	O	RT HBW 10/3000	HB 148	146	146
01 350399	20921		KL	O	RT HBW 10/3000	HB 146	145	145
01 350399	21295		KL	O	RT HBW 10/3000	HB 144	144	144
01 350399	21306		KL	O	RT HBW 10/3000	HB 144	143	143
01 350399	21322		KL	O	RT HBW 10/3000	HB 142	142	142
01 350405	39539		KL	O	RT HBW 10/3000	HB 142	142	142
01 350405	39694		KL	O	RT HBW 10/3000	HB 142	141	142
01 350405	39715		KL	O	RT HBW 10/3000	HB 142	141	142
01 350405	39774		KL	O	RT HBW 10/3000	HB 144	143	144
01 350405	39799		KL	O	RT HBW 10/3000	HB 145	145	145
01 350405	39959		KL	O	RT HBW 10/3000	HB 144	145	145
01 350405	39965		KL	O	RT HBW 10/3000	HB 139	139	139
02 350401	15513		KL	O	RT HBW 10/3000	HB 142	142	142

A04		Zn/2022/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
D/H Manufacturer's mark		B. BALDAUF Test House Manager		A08 Inspector's stamp		Date 17.09.10	
						BM 1	

QM-System: Certification as per ISO 9001



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A03 Manufacturer's order/ Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		10/...	
MATERIAL TEST REPORT (MTR)		A06 Purchaser		A07.1 No.		A07.2 No.	
A05 Established inspecting body		EDMONTON STEEL, EDMONTON		EDMONTON STEEL, EDMONTON		SA20-S5	
DE		Final receiver		A08 Product		HOT ROLLED PLATES	
B02/ Steel design.		SA516-70		A09			
B03 Any suppl.		ASME-II-A:07+A09		A10			
requirements		DIL-HUE-2-R30-2010-01-31		A11			

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C36 Method of test	C35 Individual values	C32 Mean value
02	350401	15526		KL	0	RT	HBW 10/3000	HB 142	139
02	350401	15608		KL	0	RT	HBW 10/3000	HB 141	139
02	350401	15610		KL	0	RT	HBW 10/3000	HB 142	140
02	350401	15626		KL	0	RT	HBW 10/3000	HB 138	139
02	350401	15645		KL	0	RT	HBW 10/3000	HB 139	137
02	350402	15169		KL	0	RT	HBW 10/3000	HB 141	140
02	350402	15399		KL	0	RT	HBW 10/3000	HB 146	144
02	350405	39714		KL	0	RT	HBW 10/3000	HB 144	144
02	350405	39946		KL	0	RT	HBW 10/3000	HB 145	145
02	350405	39963		KL	0	RT	HBW 10/3000	HB 142	141
02	350405	40537		KL	0	RT	HBW 10/3000	HB 141	140
03	350403	13199		KL	0	RT	HBW 10/3000	HB 143	142
03	350403	13308		KL	0	RT	HBW 10/3000	HB 142	142
04	350403	11964		KL	0	RT	HBW 10/3000	HB 142	142
04	350403	11979		KL	0	RT	HBW 10/3000	HB 143	143
04	350403	12013		KL	0	RT	HBW 10/3000	HB 142	142
04	350403	12280		KL	0	RT	HBW 10/3000	HB 142	142
04	350403	12638		KL	0	RT	HBW 10/3000	HB 141	141
04	350404	11955		KL	0	RT	HBW 10/3000	HB 141	141
04	350405	05031		KL	0	RT	HBW 10/3000	HB 144	145
05	350402	14854		KL	0	RT	HBW 10/3000	HB 148	146
07	350404	06356		KL	0	RT	HBW 10/3000	HB 142	141
07	350404	06357		KL	0	RT	HBW 10/3000	HB 139	139
07	350404	06943		KL	0	RT	HBW 10/3000	HB 142	142

A04		Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
D H Manufacturer's mark		B. BALDAUF Test House Manager		ADB		Date 17.09.10	
						BM 1	

QM-System: Certification as per ISO 9001



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10551-J1010-ER
DH Final receiver EDMONTON STEEL, EDMONT A07.2 No. SA20-S5

B02/ Steel design SA516-70
B03 Any suppl. ASME-II-A:07+A09
requirements DIL-HUE-2:R30-2010-01-31

C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C04	C03 Temp. GR.F	C30 Method of test	C35 C31 Individual values	C32 Mean value
07	350404	07812		KL	O	RT	HBW 10/3000	HB 145 145 144	145
07	350404	07813		KL	O	RT	HBW 10/3000	HB 144 145 144	144
07	350404	10672		KL	O	RT	HBW 10/3000	HB 146 144 143	144
07	350404	11097		KL	O	RT	HBW 10/3000	HB 144 144 144	144
07	350405	05063		KL	O	RT	HBW 10/3000	HB 146 147 146	146
07	350405	05064		KL	O	RT	HBW 10/3000	HB 144 144 144	144
07	350405	05065		KL	O	RT	HBW 10/3000	HB 144 144 144	144

C40-C49 Impact test												
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C04	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 Individual values AV=FTLBF	C43 Mean value
01	348840	11315		KL	LV	-51		CHP-V			AV 101 123	139
01	350041	63961		KL	LV	-51		CHP-V			AV 208 195	181
01	350399	17648		KL	LV	-51		CHP-V			AV 193 125	111
01	350399	17724		KL	LV	-51		CHP-V			AV 117 181	148
01	350399	20921		KL	LV	-51		CHP-V			AV 124 120	162
01	350399	21295		KL	LV	-51		CHP-V			AV 119 119	198
01	350399	21306		KL	LV	-51		CHP-V			AV 141 209	132
01	350399	21322		KL	LV	-51		CHP-V			AV 122 197	193
01	350405	39539		KL	LV	-51		CHP-V			AV 184 196	195
01	350405	39694		KL	LV	-51		CHP-V			AV 208 187	142
01	350405	39715		KL	LV	-51		CHP-V			AV 104 194	152
01	350405	39774		KL	LV	-51		CHP-V			AV 119 198	139
01	350405	39799		KL	LV	-51		CHP-V			AV 129 162	197
01	350405	39959		KL	LV	-51		CHP-V			AV 198 150	206
01	350405	39959		KL	LV	-51		CHP-V			AV 198 150	185

A04 Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



B. BALDAUF
Test House Manager



Inspector's stamp Date 17.09.10

BM 1



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
 MATERIAL TEST REPORT (NTR)

A10 Advice of dispatch No./ Date of dispatch
 369423-17.09.10

A08 Manufacturer's order/ A03 Certificate No.
 357359-002

B01 Product
 HOT ROLLED PLATES

Sheet
 12/...

A06 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10551-JL010-ER
 DE Final receiver EDMONTON STEEL, EDMON A07.2 No.

B02 Steel design SA516-70
 B03 Any suppl. ASME-II-A: 07+A09
 requirements DILL-HUE-2: R30-2010-01-31

SA20-S5

02	350401	15513	K1	LV	-51	CHP-V	AV 195	209	128	177
02	350401	15526	K1	LV	-51	CHP-V	AV 137	131	130	133
02	350401	15608	K1	LV	-51	CHP-V	AV 117	193	186	165
02	350401	15610	K1	LV	-51	CHP-V	AV 122	212	190	175
02	350401	15626	K1	LV	-51	CHP-V	AV 145	207	198	183
02	350401	15645	K1	LV	-51	CHP-V	AV 159	118	201	159
02	350402	15169	K1	LV	-51	CHP-V	AV 186	164	136	162
02	350402	15399	K1	LV	-51	CHP-V	AV 144	201	116	154
02	350405	39714	K1	LV	-51	CHP-V	AV 205	124	125	151
02	350405	39946	K1	LV	-51	CHP-V	AV 119	192	124	145
02	350405	39963	K1	LV	-51	CHP-V	AV 131	131	195	152
02	350405	40537	K1	LV	-51	CHP-V	AV 120	148	117	128
03	350403	13199	K1	LV	-51	CHP-V	AV 130	188	142	153
03	350403	13308	K1	LV	-51	CHP-V	AV 192	106	181	160
04	350403	11964	K1	LV	-51	CHP-V	AV 90	142	130	121
04	350403	11979	K1	LV	-51	CHP-V	AV 136	118	146	133
04	350403	12013	K1	LV	-51	CHP-V	AV 109	187	195	164
04	350403	12280	K1	LV	-51	CHP-V	AV 114	157	116	129
04	350403	12638	K1	LV	-51	CHP-V	AV 117	127	125	123
04	350404	11955	K1	LV	-51	CHP-V	AV 157	128	190	158
04	350405	05031	K1	LV	-51	CHP-V	AV 118	125	136	126
05	350402	14854	K1	LV	-51	CHP-V	AV 131	129	145	135
07	350404	06356	K1	LV	-51	CHP-V				

A04 Z01705/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar

Inspection department

Inspector's stamp Date 17.09.10

B. BALDAUF Test House Manager

BM 1

Manufacturer's mark



A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

A10	Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.
-----	---	---

A08/ Manufacturer's order!
A03 Certificate No.

Shows

369429-17.09.10

Product Line

HOT ROLLED PLATES

SA20-\$5

07-31

C40-C49 impact test

[illegible]

C70-C99 Chemical composition % - Heat analysis

307.2	Heat	C	SI	MN	P	S	N	CU	MO	NI	CR	Y	NB	SN	Ti
3072	34840	0.184	0.384	1.18	0.010	0.0011	0.0063	0.044	0.010	0.053	0.030	0.001	0.000	0.001	0.003
	350041	0.163	0.344	1.19	0.012	0.0009	0.0071	0.037	0.014	0.048	0.045	0.001	0.000	0.001	0.003
	350399	0.176	0.376	1.19	0.010	0.0011	0.0075	0.046	0.015	0.055	0.049	0.001	0.000	0.001	0.003
	350401	0.170	0.364	1.17	0.008	0.0013	0.0085	0.036	0.011	0.055	0.026	0.001	0.000	0.001	0.002
	350402	0.174	0.386	1.18	0.010	0.0012	0.0075	0.037	0.011	0.064	0.027	0.001	0.000	0.001	0.003
	350403	0.170	0.373	1.17	0.009	0.0010	0.0063	0.042	0.008	0.063	0.031	0.001	0.000	0.001	0.002
	350404	0.174	0.376	1.19	0.009	0.0009	0.0071	0.044	0.008	0.067	0.031	0.000	0.000	0.001	0.002
	350405	0.172	0.381	1.19	0.009	0.0010	0.0059	0.040	0.010	0.057	0.035	0.001	0.000	0.001	0.003

Z01/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's

AG der Dillinger Hüttenwerke A01

Postfach 1580, D-66748 Dillingen/Saar

$$\frac{B}{A}$$

B. BALDAUF

Test House Manager _____ **Inspector's stamp** _____

Date 17.09.20

1
2



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A03 Manufacturer's order/ Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991-A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		14/...	
MATERIAL TEST REPORT (MTR)				B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body DIL		A06 Purchaser EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER			
302/ Steel design. SA516-70		Final receiver EDMONTON STEEL, EDMON		A07.2 No.			
303 Any suppl. requirements		DIL-HUB-2:R30-2010-01-31		SA20-SS			

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	B	CA	AL-T
348840	Y	0,0003	0,0015	0,035
350041	Y	0,0004	0,0015	0,033
350399	Y	0,0002	0,0015	0,035
350401	Y	0,0000	0,0020	0,044
350402	Y	0,0002	0,0013	0,033
350403	Y	0,0001	0,0014	0,034
350404	Y	0,0003	0,0014	0,033
350405	Y	0,0003	0,0014	0,035

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	FO-02=	0,40	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,4
348840	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14	FO-78=	0,06	FO-91=	7,3
350041	FO-02=	0,39	FO-51=	0,001	FO-55=	0,17	FO-78=	0,06	FO-91=	6,8
350399	FO-02=	0,38	FO-51=	0,001	FO-55=	0,13	FO-78=	0,04	FO-91=	6,9
350401	FO-02=	0,39	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,8
350402	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,9
350403	FO-02=	0,39	FO-51=	0,000	FO-55=	0,15	FO-78=	0,04	FO-91=	6,8
350404	FO-02=	0,39	FO-51=	0,001	FO-55=	0,14	FO-78=	0,05	FO-91=	6,9

C95 Ladle treatment

ITEM NO.: 01-05,07-08
 HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL



Manufacturer's mark

ZD1202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.
 QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department

B. BALDAUF
 Test House Manager

Inspector's stamp Date 17.09.10

BM 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		15/...
MATERIAL TEST REPORT (MTR)		A07.1 No. ED10551-J1010-ER		B01 Product		
A05 Established inspecting body		EDMONTON STEEL, EDMON		HOT ROLLED PLATES		
DH		EDMONTON STEEL, EDMON				
B02 Steel design		SA516-70				
B03 Any suppl. requirements		ASME-II-A:07+A09 DIL-HOE-2:R30-2010-01-31				
		SA20-S5				

C95 Further information about ladle treatment

ITEM NO.: 01-05, 07-08
CALCIUM TREATED

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01														V	CR	NI	MO	CU	N	S	P	Mn	Si	C	Nb	SN	Ti
		K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1	K1														
348840	11315	0.187	0.157	0.157	0.175	0.165	0.168	0.172	0.171	0.170	0.164	0.172	0.173	0.175	0.173	0.000	0.034	0.052	0.012	0.040	0.0059	0.0012	0.009	1.17	0.276	0.187	0.001	0.001	0.003
350041	63959	0.157	0.157	0.157	0.175	0.165	0.168	0.172	0.171	0.170	0.164	0.172	0.173	0.175	0.173	0.000	0.045	0.048	0.014	0.035	0.0071	0.0011	0.010	1.16	0.315	0.157	0.001	0.001	0.003
350041	63961	0.157	0.157	0.157	0.175	0.165	0.168	0.172	0.171	0.170	0.164	0.172	0.173	0.175	0.173	0.000	0.045	0.047	0.013	0.036	0.0074	0.0010	0.011	1.16	0.340	0.157	0.001	0.001	0.003
350399	21322	0.175	0.175	0.175	0.175	0.165	0.168	0.172	0.171	0.170	0.164	0.172	0.173	0.175	0.173	0.000	0.042	0.035	0.015	0.046	0.0072	0.0012	0.009	1.17	0.367	0.175	0.001	0.001	0.003
350401	15608	0.165	0.165	0.165	0.175	0.165	0.168	0.172	0.171	0.170	0.164	0.172	0.173	0.175	0.173	0.000	0.026	0.054	0.010	0.035	0.0079	0.0015	0.008	1.15	0.361	0.165	0.001	0.001	0.001
350402	14890	0.168	0.168	0.168	0.175	0.168	0.168	0.172	0.171	0.170	0.164	0.172	0.173	0.175	0.173	0.000	0.027	0.065	0.011	0.036	0.0065	0.0011	0.010	1.17	0.389	0.168	0.001	0.001	0.003
350402	15169	0.172	0.172	0.172	0.175	0.172	0.172	0.172	0.171	0.170	0.164	0.172	0.173	0.175	0.173	0.000	0.027	0.061	0.010	0.036	0.0068	0.0010	0.009	1.15	0.376	0.172	0.000	0.000	0.002
350403	11979	0.171	0.171	0.171	0.175	0.171	0.171	0.171	0.171	0.170	0.164	0.171	0.173	0.175	0.173	0.000	0.032	0.063	0.007	0.042	0.0067	0.0012	0.009	1.16	0.367	0.171	0.000	0.000	0.002
350403	13199	0.170	0.170	0.170	0.175	0.170	0.170	0.170	0.170	0.170	0.164	0.170	0.173	0.175	0.173	0.000	0.027	0.064	0.010	0.037	0.0067	0.0017	0.010	1.17	0.385	0.170	0.000	0.000	0.003
350404	11097	0.164	0.164	0.164	0.175	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.000	0.031	0.063	0.008	0.042	0.0064	0.0015	0.009	1.17	0.375	0.164	0.000	0.000	0.003
350404	11955	0.172	0.172	0.172	0.175	0.172	0.172	0.172	0.171	0.170	0.164	0.171	0.173	0.175	0.173	0.000	0.033	0.062	0.010	0.041	0.0059	0.0014	0.008	1.15	0.366	0.172	0.000	0.000	0.003
350405	05031	0.173	0.173	0.173	0.175	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.000	0.033	0.062	0.010	0.041	0.0059	0.0014	0.008	1.17	0.376	0.173	0.000	0.000	0.002
350405	05063	0.173	0.173	0.173	0.175	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.000	0.031	0.068	0.008	0.044	0.0064	0.0013	0.009	1.17	0.374	0.173	0.000	0.000	0.002
350405	39946	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.000	0.035	0.055	0.010	0.037	0.0061	0.0014	0.008	1.16	0.370	0.175	0.000	0.000	0.003
350405	39965	0.173	0.173	0.173	0.175	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.173	0.000	0.036	0.054	0.009	0.037	0.0061	0.0012	0.009	1.17	0.369	0.173	0.000	0.000	0.003

A04	Z01Z02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	A01	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department
	QM-System: Certification as per ISO 9001		
Manufacturers' mark	B. BALDAUF Test House Manager	Inspector's stamp	Date 17.09.10



DILLINGER HÜTTE

Erfahrungen siehe Rückseite/Experiences voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10551-J1010-ER

DH Final receiver EDMONTON STEEL, EDMONT A07.2 No.

B02/ Steel design. SA516-70

B03 Any suppl. ASME-II-A:07+A09

requirements DILL-HUB-2:R30-2010-01-31

SA20-S5

A10 Advice of dispatch No./
Date of dispatch

369429-17.09.10

Sheet

A08/ Manufacturer's order/
A03 Certificate No.

357359-002

16/...

B01 Product

HOT ROLLED PLATES

C70-C99 Chemical composition: % - Product analysis

B07.2 Heat	B07.1 Test No.	C01				
		B	CA	AL-T		
348840	11315	K1 0,0002	0,0015	0,033		
350041	63959	K1 0,0002	0,0016	0,033		
350041	63961	K1 0,0003	0,0013	0,033		
350399	21322	K1 0,0003	0,0017	0,036		
350401	15608	K1 0,0002	0,0019	0,045		
350402	14890	K1 0,0002	0,0017	0,032		
350402	15169	K1 0,0002	0,0015	0,035		
350403	11979	K1 0,0000	0,0017	0,036		
350403	13199	K1 0,0003	0,0014	0,033		
350404	11097	K1 0,0002	0,0016	0,035		
350404	11955	K1 0,0002	0,0016	0,037		
350405	05031	K1 0,0002	0,0018	0,031		
350405	05063	K1 0,0000	0,0016	0,032		
350405	39946	K1 0,0003	0,0015	0,035		
350405	39965	K1 0,0003	0,0014	0,035		

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01				
		K1	FO-02=	FO-51=	FO-55=	
348840	11315	K1	FO-02=	0,40	FO-51=	0,14
350041	63959	K1	FO-02=	0,37	FO-51=	0,14
350041	63961	K1	FO-02=	0,37	FO-51=	0,14
350399	21322	K1	FO-02=	0,39	FO-51=	0,16
350401	15608	K1	FO-02=	0,37	FO-51=	0,13
350402	14890	K1	FO-02=	0,38	FO-51=	0,14
350402	15169	K1	FO-02=	0,38	FO-51=	0,13

A04 Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's
Mark

B. Baldurp

Test House Manager

AHB

Inspector's stamp

Date 17.09.10

BM 1

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)
A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMONTON A07.1 No. ED10551-J1010-ER
DH Final receiver EDMONTON STEEL, EDMONTON A07.2 No. SA20-S5

B02/ Steel design. SA516-70
B03 Any suppl. ASME-II-A:07+A09
requirements DIL-HUE-2:R30-2010-01-31

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01									
		K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14			
350403	11979	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14			
350403	13199	K1	FO-02=	0,37	FO-51=	0,001	FO-55=	0,14			
350404	11097	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14			
350404	11955	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,15			
350405	05031	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,15			
350405	05063	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,14			
350405	39946	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,14			
350405	39965	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,14			

C94 Carbon equivalent formula / Alloying restrictions

FO-02 = $C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15$
FO-51 = V + Nb
FO-55 = Cu+Mo+Ni+Cr
FO-78 = Cr+Mo
FO-91 = Mn/C

D01 Marking and identification, surface appearance, shape and dimensional properties

ITEM NO.: 01-05, 07-08
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS
SURFACE AS PER ASME-SA20
THICKNESS AS PER ASME-SA20
LENGTH AND WIDTH AS PER ASME-SA20
FLATNESS AS PER 1/2-ASME-SA20



A04	 Manufacturer's mark	 B. BALDAUF Test House Manager	AHB Inspector's stamp	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
				Date 17.09.10	BM 1

ORIGINAL

MILL TEST CERTIFICATE



DX DONGKUK STEEL

15801

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-001
 Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Tensile Test				Impact Test		Chemical Composition														Remarks					
					P 0.5mm			QL	YS ksi	TS ksi	EL %	UT ksi	S b	V Notch ft-lbf	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb		Ti	V	T.Ai %	S.Ai %	Ceq
					P 0.5mm																									
					P 0.5mm																									
9.52x2451x12192 0.375"x96.5"x480" *Specimen No : DP0210303-a, DP0210303-b ** Normalized: 1570°F, 23min	A085441-01.02.03		2,235	J1011839	T 1	54	77	23	1	1:140 2:157 3:128 A:141	L	16	36	143	11	3	13	2	2	1	5	1	1	1	32	399				
9.52x2451x12192 0.375"x96.5"x480" *Specimen No : DP0210303-a, DP0210303-b ** Normalized: 1570°F, 23min	A085443-01.02.03	3	6,705	J1021969	T 1	54	78	22	1	1:99 2:109 3: 62 A: 89	L	17	36	144	18	2	12	2	2	1	2	1	2	1	34	410				
9.52x2451x12192 0.375"x96.5"x480" *Specimen No : DP0210303-a, DP0210303-b ** Normalized: 1570°F, 23min	A085442-01.02.03	3	6,705	J1031953	T 1	54	77	24	1	1:145 2:198 3:154 A:165	L	16	36	144	12	2	14	1	1	3	1	3	1	2	27	403				
	Sub Total (10)	3	6,705																											

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.										* Specimen No. : a-Tension, c-Impact * Position : T-Top, M-Middle, B-Bottom * Division : L-Ladle Analysis, P-Product Analysis * Sub(Spec Size, Real Value, mm) : Blank-Full Size, 1-7.5x10, 2-5.0x10 * G(LGauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65x1A, 7-5d, 8-4d, 9-6d * T(S,AI : Total(Soluble) AI									
When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.																			

887

Surveyor to : _____ Surveyor to : _____ Chief of Quality Control Team : _____

Danglin Works, 400 Hanjin-d, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

Page : 1/12



ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-002
 Date of Issue : Nov. 29, 2010

Dimension Unit Inch: " mm: Space	Product No	Quantity	Weight kg	Heat No	Tensile Test												Impact Test		Chemical Composition														Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
					Y P				TS		EL		Q _T	ksi	x	b	S	U ₁	F ₁	V Notch	D	I	V	S	P	Mn	P	S	Cr	Ni	Cu	Mo		Nb	Ti	V	T _{Al}	S _{Al}	Ca ₃																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
					Y P		TS		EL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
					P O S												I		V																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
9.52*2451*12192 0.375*958.5*4831 *Specimen No : DP02072804-a DP02072804-c ** Normalized: 1670°F, 22min	A083238-01		2,235	JK566054	T	1	52	79	23.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

* Tensile Test Direction-Transverse
 * Impact Test Direction-Longitudinal
 * Ca₃ = C-Mn/(Fe-Mn-Cu)/1.54 (C+Mn+V)/5
 * Supply Condition - Normalized
 * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000

We hereby certify that the material has been made by Basic oxygen process (fully killed steel, fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Specimen No.: a-Tension, b-Impact
 * Position: T-Top, M-Middle, B-Bottom
 * Division: L-Ladle Analysis, P-Product Analysis
 * Sub/Sub Size, Real Value, mm: Blank-Full Size, 1-7.5-10, 2-5.0-10
 * G (Gauge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65-A,
 7-36, 8-40, 9-80
 * T(S)Al: Total(Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to: _____ Surveyor to: _____ Chief of Quality Control Team: *[Signature]*

Dangjin Works, 400 Haejin-ro, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 344-923, Korea

Page: 2/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP8-2-101129-057-008
 Date of issue : Nov. 29, 2010

Dimension Unit Inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Chemical Composition																			Remarks			
					Tensile Test			Impact Test																			
					Y _P	TS	EL	S	H	V Notch	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T. Al		S. Al	Ceq	
					EL	ksi	%	%	%	ft-lbf	%	%	%	%	%	%	%	%	%	%	%	%	%	%			
9.52*3651*12192 0.375*1220.5*7480" *Specimen No : JF0204507-a, DP0204507-c ** Normalized: 1570°F, 23min	A084236-02.03		2,790	JK565054	T	1	51	78	23	1	1:143 2:122 3:141 A:135 ..	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
Sub Total (20)		2	5,580																								
12.70*2451*12192 0.5*136.5*7480" *Specimen No : JF0204501-a, DP0204501-c ** Normalized: 1570°F, 23min	A087507-01.02.03		2,980	J1775888	T	1	50	74	24		1: 81 2: 51 3: 73 A: 72	16	36	143	16	8	20	1	1	1	1	3	34		404		
Sub Total (30)		3	8,940																								
12.70*3651*12192 0.5*1220.5*7480" *Specimen No : JF0204493-a, DP0204493-c ** Normalized: 1570°F, 23min	A083738-01.02		3,721	JK565051	T	1	49	78	23		1:133 2:146 3:134 A:137	16	39	143	15	4	20	1	2	1	1	2		39	405		
Sub Total (40)		2	7,442																								

Tensile Test Direction-Transverse Impact Test Direction-Longitudinal Ceq = C+Mn/6+Ni+Cu/15+Cr+Mo+V/5 Supply Condition - Normalized Chemical Composition Unit(%) : 2-x100, 3-x1000, 4-x10000	We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactory tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.	Specimen No. : a-Tension, c-Impact Position : T-Top, M-Middle, B-Bottom Division : L-Ladle Analysis, P-Product Analysis Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10 G Gauge Length, mm) : 1-200, 2-100, 3-50, 4-70, 5-50, 6-5.65(A, 7-5.6, 8-44, 9-8.8) T(S) Al : Total(Soluble) Al
When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.		

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to : _____ Surveyor to : _____
 Daejin Works, 400 Hanjin-ro, Songak-myeon, Daejin-gun, Chungcheongnam-do, 343-623, Korea

Chief of Quality Control Team

Page : 3/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N; 2007, ED
 Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL AMERICA
 Certificate No. : DP3-2-101129-057-004
 Date of Issue : Nov. 29, 2010

Dimension Unit : mm, Space inch : mm, Space	Product No	Quant- ity	Weight kg	Heat No	Chemical Composition															Remarks						
					Tensile Test			Impact Test																		
					Y _P	T _S	EL	S	U	V	Notch	C	Si	Mn	P	S	Cr	Ni	Cu		Mo	Nb	Ti	V	T _{AI}	S _{AI}
					Q _T	ksi	%	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf	ft-lbf			
12.70x3051x12192 0.5"x120.5"x480" *Specimen No : IP02072807-a, IP02072807-c ** Normalized: 1570 F, 20min	A084230-01.02		3,721	JK566052	T 1	52	77	24	1: 77 2: 120 3: 75 A: 50	1: 77 2: 120 3: 75 A: 50	16	37	143	17	3	20	1	2	1	1	2	3	3	3		
Sub Total (40)																										
12.70x3051x12192 0.5"x120.5"x480" *Specimen No : IP02065505-a, IP02065505-c ** Normalized: 1570 F, 20min	A084230-01.02	2	7,442	JK566054	T 1	52	78	23	1: 70 2: 81 3: 70 A: 78	1: 70 2: 81 3: 70 A: 78	16	37	143	20	4	30	1	2	1	1	2	3	3	3		
Sub Total (40)																										
12.70x3051x12192 0.5"x120.5"x480" *Specimen No : IP02065505-a, IP02065505-c ** Normalized: 1570 F, 20min	A084230-01.02		3,721	JK566054	T 1	54	78	23	1: 127 2: 146 3: 158 A: 143	1: 127 2: 146 3: 158 A: 143	16	37	143	20	4	30	1	3	2	1	2	3	3	3		
Sub Total (40)																										

* Tensile Test Direction: Transverse * Impact Test Direction: Charpy * Char. C-Mn (6-A) Cu/15-A Cr-Mo-V/5 * Supply Condition - Normalized * Chemical Composition Unit(%) : 2-x100, 3-x1000, 4-x10000	We hereby certify that the material has been made by Basic oxygen process (Fully Killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.	* Specimen No. : a- Tension, c- Impact * Position : 1- Top, M- Middle, B- Bottom * Division : 1- Lead, Analysis, P- Product Analysis * Sub/ Sub Size, Real Value, mm) : Blank- Full Size, 1- 7.5x10, 2- 5.0x10 * GI (Gauge Length, mm) : 1- 200, 2- 100, 3- 80, 4- 70, 5- 50, 6- 35.5(A) * T(S) AI : Total (Solid) AI
When using this ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.		

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

When using this ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to : _____ Surveyor to : _____
 Daroln Works, 400 Hanil-ro, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

Chief of Quality Control Team

Page : 4/12

ORIGINAL

MILL TEST CERTIFICATE

DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-005
 Date of issue : Nov. 29, 2010

Dimension Unit inch: " mm: Space	Product No	Quant ity	Weight kg	Heat No	Chemical Composition																		Remarks					
					Tensile Test				Impact Test				P	S	Mn	P	S	Cu	Ni	Mo	Nb	Ti		V	T.Ai	S.Ai	Ceq	3
					YP	TS	EL	S	U	V Notch	ft-lbf																	
												ksi																
15.88*3051*12192 0.625"X120.5"X480" *Specimen No : DP20205501-a, DP20205501-b ** Normalized: 1570 F, 32min	A084042-01		4,652	J2752178	T	1	49	74	24	1: 79 2: 75 3: 105 At: 37	L	16	39	140	16	7	20	1	1	1	4	31			400			
Sub Total (50)		1	4,652																									
15.88*3051*12192 0.625"X120.5"X480" *Specimen No : DP20205501-a, DP20205501-b ** Normalized: 1570 F, 32min	A084041-01		4,652	J2753135	T	1	47	73	24	1: 96 2: 81 3: 91 At: 83	L	15	37	143	17	11	20	1	1	1	3	31			394			
Sub Total (50)		1	4,652																									
19.65*3051*12192 0.75"X120.5"X480" *Specimen No : DP20205504-a, DP20205504-b ** Normalized: 1570 F, 32min	A084024-01,02		5,550	J2752178	T	1	50	75	25	1: 92 2: 50 3: 80 At: 74	L	16	39	140	16	7	20	1	1	1	4	31			400			
Sub Total (60)		2	11,160																									
We hereby certify that the material has been made by Basic oxygen process (Fully killed steel), (Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.																							* Specimen No. : a-Tension, C-Impact * Position : 1-Top, M-Middle, B-Bottom * Division : 1-Ladle Analysis, P-Product Analysis * Sub/Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10 * GI(Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65-A, 7-5d, 8-4d, 9-8d * T(S),A(I) : Total(Soluble) A(I)					
* Tensile Test Direction-Transverse * Impact Test Direction-Longitudinal * Ceq = C+Mn/5+(Ni+Cu)/15+(Cr+Mo+V)/5 * Supply Condition - Normalized * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000																							When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.					

We hereby certify that the material has been made by Basic oxygen process (Fully Killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to: _____ Surveyor to: _____ Chief of Quality Control Team: _____

Dangjin Works, 400 Haejin-ri, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

Page: 5/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N; 2007 ED

Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-006
 Date of issue : Nov. 29, 2010

Dimension Unit inch * mm Space	Product No	Quant /ly	Weight kg	Heat No	Chemical Composition																		Remarks					
					P 0 S i s t e n s i l e	Tensile Test			Impact Test			Chemical Composition																
						Y P	T S	E L	S U	S U	F U	N 50	F U	C	Si	Mn	P	S	Cr	Ni	Cu	Mo		Nb	Ti	V	T Al	S Al
ksi	%	%	ft-lbf	ksi	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%				
19.05*3051*12192 0.75"X120.5"X480" *Specimen No : DP20071401-a, DP20071401-c ** Normalized: 1670 F, 37min	A084063-01.02		5,580	JK467025	1	54	78	25					1:123 L 2: 96 3: 94 A:104	16	38	144	17	4	20	1	2	1	1	2		35	407	
Sub Total (60)		2	11,160																									
19.05*3051*12192 0.75"X120.5"X480" *Specimen No : DP20072805-a, DP20072805-c ** Normalized: 1670 F, 37min	A084062-01.02		5,580	JK566052	1	53	77	24					1:120 L 2:133 3:134 A:129	16	37	143	17	3	20	1	2	1	1	2		31	405	
Sub Total (60)		2	11,160																									
19.05*3051*12192 0.75"X120.5"X480" *Specimen No : DP20055303-a, DP20055303-c ** Normalized: 1670 F, 37min	A084051-01.02		5,580	JK566054	1	53	77	27					1:126 L 2:101 3:125 A:117	16	37	143	20	4	30	1	3	2	1	1	2	34	408	
Sub Total (60)		2	11,160																									
We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.					* Tensile Test Direction-Transverse * Impact Test Direction-Longitudinal * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5 * Supply Condition - Normalized * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000 * Specimen No.: a-Tension, C-Impact * Position: T-Top, M-Middle, B-Bottom * Division: 1-Lead Analysis, 2-Product Analysis * Sub (Sub Size, Read Value, mm): Blank, 3-Size, 1-7, 5-10, 2-5.0-10 * G1 (Gauge Length, mm): 1-200, 2-100, 3-60, 4-70, 5-50, 6-55.5A, 1-30, 2-40, 3-60 * T (SIA): Total(Soluble) A)																		When using this ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.					

[Signature]

Surveyor to : _____ Surveyor to : _____ Surveyor to : _____

Chief of Quality Control Team

Page : 6/12

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Tensile Test Direction-Transverse
 * Impact Test Direction-Longitudinal
 * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+W)/5
 * Supply Condition - Normalized
 * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000

* Specimen No.: a-Tension, C-Impact
 * Position: T-Top, M-Middle, B-Bottom
 * Division: L-Ladle Analysis, P-Product Analysis
 * Sub Size, Reel Value, mm: 1-7.5-10, 2-5.0-10
 * GI (Gauge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-55-VA
 * 7-5d, 8-4d, 9-8d
 * T(S) Al: Total(Soluble) Al

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL, INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-007
 Date of Issue : Nov. 29, 2010

Dimension Unit Inch: mm: Space	Product No	Quantity	Weight kg	Heat No	Chemical Composition																							Remarks
					Tensile Test				Impact Test																			
					Y _P		TS	EL	S	-50°F																		
					ksi	%	U ₁	V Notch	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	TAl	SAl	Qac					
					ksi	%	ft-lbf																					
19.05*3051*12192 0.75*120.5*1489 *Specimen No : JPD2005504-a, JPD2005504-b ** Normalized: 1670°F, 5min	A084084-01,02		5,580	JK66054	T 1	53	78	24			1:115 2:116 3: 78 A:103		16	37	143	20	4	30	1	3	2	1	1	2		34	408	
22.22*3051*12182 0.875*120.5*1488 *Specimen No : JPD2005501-a, JPD2005501-b ** Normalized: 1670°F, 5min	Sub Total (60) A083492-01	2	11,160	J2751853	T 1	45	74	26			1: 59 2: 78 3:118 A: 84		15	38	144	20	6	20	1	1	1	1	4	32		396		
22.22*3051*12192 0.875*120.5*1489 *Specimen No : JPD2005502-a, JPD2005502-b ** Normalized: 1670°F, 5min	Sub Total (70) A084021-01,02	1	8,512	J2752178	T 1	45	74	27			1:125 2:118 3:113 A:119		16	39	140	16	7	20	1	1	1	1	4	31		400		
	Sub Total (70)	2	13,024																									
We hereby certify that the material has been made by Basic oxygen process (Fully killed steel), Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.																												* Tensile Test Direction- Transverse * Impact Test Direction- Longitudinal * Cert = C-MV/64-FW-GU/15-(C-Mo-V)/5 * Supply Condition - Normalized * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000
					* Specimen No.: a-Tension, C-Impact * Position: 1-Top, M-Middle, B-Bottom * Division: 1-Ladle Analysis, P-Product Analysis * Sub/Spec Size, Real Value, mm): Blank-End Size, 1-7 5x10, 2-5 0x10 * GI (Gauge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65x1A, 7-5d, 8-4d, 9-6d * T(S)/A: Total(Soluble) Al																							
					When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.																							

We hereby certify that this material has been made by Basic oxygen process (Fully killed steel).
 Fine grain practice) and satisfactorily tested in accordance with above specification requirements
 called for by the above order. This mill test certificate has been issued in compliance with EN
 10204 3.1.

* Specimen No. : a-Tension, c-Impact
 * Position : T-Top, M-Middle, B-Bottom
 * Division : L-Ladle Analysis, P-Product Analysis
 * Sub (Size, Real Value, mm) : Blank-Plat Size, 1-7.5*10, 2-5.0*10
 * GA (Gauge Length, mm) : 1-300, 2-100, 3-80, 4-70, 5-50, 6-55-VA
 * T (S/A) : Total (Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product
 damage and safety accidents may be caused.

Surveyor to

Surveyor to

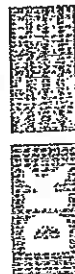
Surveyor to

Surveyor to

Chief of Quality Control Team

Dangjin Works, 400 Hangin-rd, Songguk-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

Page : 7/12



ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED

Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DFG-2-101129-057-008
 Date of issue : Nov. 29, 2010

Dimension Unit Inch: " mm: Space	Product No	Quant ty	Weight kg	Heat No	Chemical Composition																			Remarks			
					P o s t i o n	Tensile Test			Impact Test			C															
						YF	TS ksi	EL %	S u b	V Notch	-50 °F	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V		T,Al	S,Al	Ceq
22.22x3061x12192 0.875x120.5"x480" *Specimen No :DP0203003-a, DP0203003-s ** Normalized: 1570 F, 5min	A083493-01 Sub Total (70)	1	6,512	J0202300	T 1	48	75	27			1: 87 2: 110 3: 108 A: 102	15	38	143	17	6	20	1	1	1	1	1	3	33	3	404	
22.22x3061x12192 0.875x120.5"x480" *Specimen No :DP0203001-a, DP0203001-c ** Normalized: 1570 F, 5min	A084055-01.02 Sub Total (70)	2	13,024								1: 127 2: 152 3: 155 A: 145	16	39	143	16	4	20	1	2	1	1	1	2		39	405	
22.22x3061x12192 0.875x120.5"x480" *Specimen No :DP02072804-a, DP02072804-c ** Normalized: 1570 F, 5min	A084057-01.02 Sub Total (70)	2	13,024								1: 151 2: 151 3: 146 A: 149	16	37	143	17	3	20	1	2	1	1	1	2		31	405	
We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.					* Specimen No. : 2-Tension, C-Impact * Position : 1-Top, 1-Middle, B-Bottom * Division : 1-End Analysis, P-Product Analysis * Sub Size, Real Value, mm : Blank-Full Size, 1-7.5x10, 2-5.0x10 * GI(Gauge Length, mm) : 1-200, 2-100, 3-60, 4-70, 5-50, 6-5.65-A, 7-50, 8-40, 9-60 * T(S):A : Total(Soluble) Al																						
Tensile Test Direction-Transverse Impact Test Direction-Longitudinal Ceq = C+Mn/6+(Ni+Cu)/34+(Cr+Mo)/5 Supply Condition - Normalized Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000					When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.																						

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

Specimen No. : a-Tension, c-Impact
 Position : T-Top, M-Middle, B-Bottom
 Division : L-Ladle Analysis, P-Product Analysis
 Sub (Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5-10, 2-5.0-10
 GI (Grain Length, mm) : 1-200, 2-100, 3-60, 4-70, 5-50, 6-5.65-μ, 7-50, 8-40, 9-Red
 T(S), A : Total(Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

[Signature]

Surveyor to : _____ Surveyor to : _____ Chief of Quality Control Team : _____
 Daejeon Works, 400 Hanjin-ro, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-623, Korea
 Page : 8/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No.: J10A400091
 PO No.: LPP201009011
 Commodity: STEEL PLATE
 Specification: ASME SA516-70N: 2007 ED.

Supplier: DONGKUK INTERNATIONAL INC.
 Customer: DAEWOO INTERNATIONAL AMERICA

Certificate No.: DP3-2-101129-057-009
 Date of issue: Nov. 29, 2010

Dimension Unit Inch: * mm: Space	Product No	Quant ity	Weight kg	Heat No	Tensile Test		Impact Test		Chemical Composition														Remarks					
					Y _T	TS	EL	S	U	V Notch	ft/lbf	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti		V	T.Ai	S.Ai	Oeq	
22.22*3051*12192 0.875*120.5*460" *Specimen No :DP2027801-a, DP2027801-c ** Normalized:1570°F,5min	A084058-01.02		5,512	JK566053	T 1	48	77	26	1135			16	37	143	19	4	30	1	2	1	1	1	2	3	3	3	407	
25.40*2451*12192 1.755*5.7460" *Specimen No :DP2024022-a, DP2024022-c ** Normalized:1570°F,5min	A083465-01	2	13,024	J1774078	T 1	49	74	27	1:58			16	37	143	20	8	20	1	1	1	1	1	4	30			405	
25.40*3051*12192 1.755*5.7460" *Specimen No :DP20272801-a, DP20272801-c ** Normalized:1570°F,5min	A084052-01	1	5,958	JK566052	T 1	45	75	27	1:151			16	37	143	17	3	20	1	2	1	1	1	2	3	3	3	405	
	Sub Total (50)	1	7,439																									

* Tensile Test Direction: Transverse
 * Impact Test Direction: Longitudinal
 * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo)/5
 * Supply Condition: Normalized
 * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x100000

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Specimen No.: a-Tension, c-Impact
 * Position: 1-Top, M-Middle, B-Bottom
 * Division: 1-Ladle Analysis, 2-Product Analysis
 * Sub(Sub Size, Real Value, mm): Blank-Full Size, 1-7.5-10, 2-5.0-10
 * G1(Gauge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65-A, 7-5d, 8-4d, 9-8d
 * T(S)/A: Total(Soluble) Al

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to: _____ Surveyor to: _____ Chief of Quality Control Team: _____
 Dangjin Works, 400 Hanjin-dl, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea Page: 9/12

Handwritten signature

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N: 2007 ED.
 Supplier : DONGKUK-INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA
 Certificate No. : DP3-2-101129-057-010
 Date of Issue : Nov. 29, 2010

Dimension Unit : mm: Space inch: : mm: Space	Product No	Quant ity	Weight kg	Heat No	Tensile Test		Impact Test		Chemical Composition												Remarks				
					Y P	T S	E L	S	U	F	C	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti		V	T.A.I	S.A.I	Ocd
31.75*2454*12192 1.25*97*480 *Specimen No : JF0203001-a, JF0203001-c ** Normalized: 1570°F, 84min	A083461-01		7,488	J1774052	T 1	48	74	30	1	78	16	36	142	19	7	20	1	1	2	1	3	27	3	403	
	Sub Total (100)	1	7,488							2: 79 3: 102 A: 99															
31.75*2454*12192 1.25*97*480 *Specimen No : JF0203001-a, JF0203001-c ** Normalized: 1570°F, 84min	A083462-01		7,488	J5202300	T 1	48	74	28	1	16	16	38	143	17	5	20	1	1	1	1	3	33		404	
	Sub Total (100)	1	7,488							2: 13 3: 30 A: 19															
31.75*2454*12192 1.25*97*480 *Specimen No : JF0202401-a, JF0202401-c ** Normalized: 1570°F, 84min	A085023-01		7,488	JF08307	T 1	49	75	27	1	170	17	34	145	19	7	20	1	2	1	1	2	47	418		
	Sub Total (100)	1	7,488							2: 121 3: 119 A: 113															
				We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204-3.1.																	* Specimen No. : a-Tension, c-Impact * Position : 1-Top, M-Middle, B-Bottom * Division : L-Ladle Analysis, P-Product Analysis * Sub(Sub Size, Real Value, mm) : Blank-Full Size 1-7.5*10, 2-5.0*10 * Supply Condition - Normalized * GI (Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65*10 * 7-50, 8-40, 9-80 * T(S)AI : Total(Solute) AI				
				Tensile Test Direction-Transverse * Impact Test Direction-Longitudinal * Ceq = C+Mn/6+(Ni+Cu)/16+(Cr+Mo+V)/5 * Normalized - Normalized * Chemical Composition Unit(%) : 2*100, 3*1000, 4*10000																	When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.				

We hereby certify that the material has been made by Basic oxygen process (fully killed steel, fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Tensile Test Direction: Transverse
 * Impact Test Direction: Longitudinal
 * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo)/5
 * Supply Condition : Normalized
 * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Handwritten signature

Surveyor to : _____ Surveyor to : _____ Chief of Quality Control Team
 Dangjin Works, 400 Hanjin-ro, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea
 Page : 10/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No.: J10A400091
 PO No.: LPP201009011
 Commodity: STEEL PLATE
 Specification: ASME SA516-70N: 2007 ED

Supplier: DONGKUK INTERNATIONAL, INC.
 Customer: DAEWOO INTERNATIONAL-AMERICA

Certificate No.: DP3-2-101129-057-011
 Date of Issue: Nov. 29, 2010

Dimension Unit inch: * mm: Space	Product No	Quantity	Weight kg	Heat No	Tensile Test														Impact Test		Chemical Composition														Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
					Tensile Test				Yield Point				Elongation				Reduction of Area				Y _P	TS	EL	S	P	Mn	Si	C	Cu	Mo	Nb	Ti	V	TAI		SAI	Ceq																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Y _P	TS	EL	%	U ₁	U ₂	U ₃	U ₄	%	%	%	%	%	%	%	%																		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

* Tensile Test Direction-Transverse
 * Impact Test Direction-Longitudinal
 * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo)/5
 * Supply Condition - Normalized
 * Chemical Composition Unit(%): 2-x100, 3-x1000, 4-x10000

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to: _____ Surveyor to: _____
 Chief of Quality Control Team

Page: 11/12

ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LPP201009011
 Commodity : STEEL PLATE
 Specification : ASME SA516-70N-2007 ED.

Supplier : DONGKUK INTERNATIONAL INC.
 Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP8-2-101129-057-012
 Date of Issue : Nov. 29, 2010

Dimension Unit Inch: ", mm: Space	Product No	Quant ty	Weight kg	Heat No	Posi tion	Tensile Test			Impact Test			Chemical Composition														Remarks	
						Yp ksi	TS ksi	EL %	S u	F t	V Notch ft-lbf	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T.Ai	S.Ai		Ceq
31.75*3073*12182 1.25"X121"X480" *Specimen No: DP02035902-a, DP02035902-c ** Normalized: 1570°F, 54min	A084020-01		9,340	J2752178	T 1	44	73	27	1: 96 2: 99 3: 115 A: 103	16	39	140	16	7	20	1	1	1	1	1	4	31	3	400			
Sub Total (110)																											
31.75*3073*12182 1.25"X121"X480" *Specimen No: DP02021503-a, DP02021503-c ** Normalized: 1570°F, 54min	A082359-01	1	9,340	JK467027	T 1	49	75	27	1: 100 2: 94 3: 103 A: 99	16	37	143	16	5	20	1	2	1	2	2	2		42	405			
Sub Total (110)																											
31.75*3073*12182 1.25"X121"X480" *Specimen No: DP020357201-a, DP020357201-c ** Normalized: 1570°F, 54min	A084030-01	1	9,340	JK467027	T 1	49	75	27	1: 82 2: 64 3: 83 A: 76	16	37	143	16	5	20	1	2	1	2	2	2		42	405			
Sub Total (110)																											
<Grand Total>																											

APPROVED

MONITOR

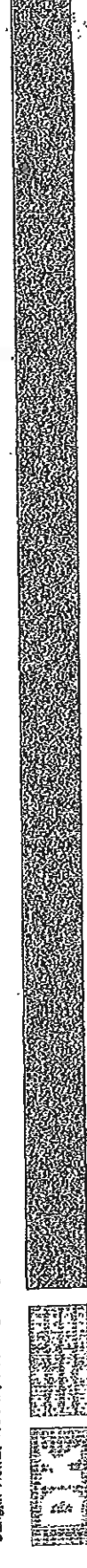


We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirements called for by the above order. This mill test certificate has been issued in compliance with EN 10204 3.1.

Specimen No. : a-Tension, C-Impact
 Position : 1-Top, M-Middle, B-Bottom
 Division : L-Ladle Analysis, P-Product Analysis
 Sub (Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10
 GI (Gauge Length, mm) : 1-200, 2-100, 3-60, 4-70, 5-50, 6-55, 7-50, 8-40, 9-30
 T(S)AI : Total (Soluble) AI

When using the ordered product for other uses, rather than the above specification use, product damage and safety accidents may be caused.

Surveyor to : _____ Surveyor to : _____ Surveyor to : _____
 Daejin Works, 400 Hanjin-rd, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea
 Chief of Quality Control Team
 Page : 12/12



Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
 MATERIAL TEST REPORT (NTR)
 A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10553-J1010-ER
 DH Final receiver EDMONTON STEEL, EDMONT A07.2 No.
 A10 Advice of dispatch No./ Date of dispatch 372664-05.11.10
 A08 Manufacturer's order/ A03 Certificate No. 359527-001
 B01 Product HOT ROLLED PLATES
 Sheet 1/...

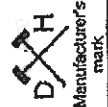
B02 Steel design. SAS16-70
 B03 Any suppl. ASME-II-A:07+209
 requirements DIL-HUE-2:R30-2010-01-31
 SA20-S5



B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34359-01	34359-01
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34359-02	34359-02
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34359-03	34359-03
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34482-01	34482-01
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34482-02	34482-02
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34532-01	34532-01
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34532-02	34532-02
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34532-03	34532-03
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34572-01	34572-01
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34572-02	34572-02
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34572-03	34572-03
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34692-01	34692-01
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34692-02	34692-02
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351660	34692-03	34692-03
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34107-01	34107-01
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34107-02	34107-02
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34107-03	34107-03
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34287-01	34287-01
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34287-02	34287-02
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34287-03	34287-03
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34331-01	34331-01
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34331-02	34331-02
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	351661	34331-03	34331-03

A04 2012/2023 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.
 AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department
 B. BALDAUF
 Test House Manager
 Inspector's stamp
 Date 05.11.10
 22 1



QM-System: Certification as per ISO 9001

Erläuterungen siehe Rubrik 10/11 (Erläuterungen voir au verso/See reverse for explanations (www.dillinger.de/certificate))

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
 MATERIAL TEST REPORT (MTR)
 A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMONTON A07.1 No. ED10553-J1010-ER
 DH Final receiver EDMONTON STEEL, EDMONTON A07.2 No. SA20-S5

A10 Advice of dispatch No./ Date of dispatch 372664-05.11.10
 A08 Manufacturer's order/ Certificate No. 359527-001
 B01 Product HOT ROLLED PLATES
 Sheet 2/...

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
**	23				106950				
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34360-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34360-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34360-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34479-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34479-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34479-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34507-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34507-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34507-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34541-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34541-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34541-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34646-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34646-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34646-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34695-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34695-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351660	34695-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351661	34129-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351661	34129-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351661	34129-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	351661	34269-01	

A04 2012/02/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.
 QM-System: Certification as per ISO 9001
 AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department
 ADB
 R. BALDAUF
 Test House Manager
 Inspector's stamp Date 05.11.10
 PP 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		3/...	
MATERIAL TEST REPORT (MTR)				B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body DH		A06 Purchaser EDMONTON STEEL, EDMONTON		A07.1 No. ED10553-F1010-ER			
		Final receiver EDMONTON STEEL, EDMONTON		A07.2 No.			

B02 Steel design. SA516-70

B03 Any suppl. ASME-II-A-07+A09

requirements DIL-HUE-2:R30-2010-01-31

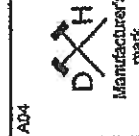
SA20-S5

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	351661	34269-02	
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	351661	34269-03	
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	351661	34342-01	
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	351661	34342-02	
02	1	0,7500 X	120,50000 X	480,00000 X	5580	N	351661	34342-03	
**	27				150660				
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35146-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35146-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35147-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35147-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35193-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35193-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35239-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35239-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35350-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351658	35350-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351659	34829-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351659	34829-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351659	34831-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351659	34831-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351659	34851-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351659	34851-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510	N	351659	34997-01	

2017020203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



A04

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



B. Baldauf

B. BALDAUF
Test House Manager

Inspector's stamp Date 05.11.10

PP 1



Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		4/...	
MATERIAL TEST REPORT (MTR)				901 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON	
B02/ Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09		DIL-HUE-2-R30-2010-01-31			

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
			INCH		KG				
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34997-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	35145-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	35145-02	
**	20				130200				
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35403-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35450-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35450-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35453-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35453-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35458-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35458-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35463-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35463-02	
**	9				53631				
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	33863-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	33863-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	34106-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32679-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32679-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32686-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32686-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32697-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32700-01	

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



B. BALDUF
Test House Manager

Inspector's stamp Date 05.11.10

PP 1



Erleichterungen siehe Rückseite/Exemptions voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser

Final receiver

EDMONTON STEEL, EDMON

EDMONTON STEEL, EDMON

SA20-S5

A07.1 No. ED10553-J1010-ER

A07.2 No.

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
05	1	1,0000 x	120,50000 x	480,00000 x	7440 N	N	351664	32700-02	
05	1	1,0000 x	120,50000 x	480,00000 x	7440 N	N	351664	32701-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440 N	N	351664	32701-02	
05	1	1,0000 x	120,50000 x	480,00000 x	7440 N	N	351664	32814-01	
05	1	1,0000 x	120,50000 x	480,00000 x	7440 N	N	351664	32814-02	
**	14	1,0000 x	120,50000 x	480,00000 x	104160	N			
06	1	1,0000 x	178,00000 x	480,00000 x	10991 N	N	351663	33457-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	351659	34697-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	351659	34764-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	351659	34764-02	
07	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	351659	34779-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	351659	34780-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	351659	34827-01	
07	1	1,1250 x	97,00000 x	480,00000 x	6738 N	N	351659	34827-02	
**	7	1,2500 x	97,00000 x	480,00000 x	47166	N			
08	1	1,2500 x	97,00000 x	480,00000 x	7487 N	N	351664	32678-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339 N	N	351663	33459-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339 N	N	351663	33460-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339 N	N	351663	33690-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339 N	N	351663	33768-01	
09	1	1,2500 x	121,00000 x	480,00000 x	9339 N	N	351663	33771-01	
**	5	1,2500 x	121,00000 x	480,00000 x	46695	N			
***	107				657940				

Z011202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark

A01

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillinger/Saar
inspection department



B. BALDAUF
Test House Manager

Inspector's stamp

Date 05.11.10

Page 1



DILLINGER HÜTTE

Erklärungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMONTON A07.1 No. ED10553-J1010-ER
DH Final receiver EDMONTON STEEL, EDMONTON A07.2 No. SA20-S5

B02/ Steel design SA516-70
B03 Any suppl. ASME-III-A:07+A09
requirements DIL-HUE-2:R30-2010-01-31

B04 Product delivery condition

ITEM NO.: 01-09
N: HT: 1670 GR.F +36 -27 GR.F
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1.75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-09
STEEL DESIGNATION SA516 70 MLTY SA516 60 MLTY
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

B07-B99 Further information about the product

ITEM NO.: 01-09
THICKNESS REDUCTION RATIO $\geq 3,0$ IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 B07.2 Item Heat No.	B07.1 Rel. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13 A % LP-8RN	C14-C15 A % LP-2RN
01 351660 34359	K1 Q	RT	50,3	75,0	26		
01 351660 34482	K1 Q	RT	50,5	75,4	28		
01 351660 34532	K1 Q	RT	50,0	75,1	27		
01 351660 34572	K1 Q	RT	50,8	75,4	27		
01 351660 34692	K1 Q	RT	51,8	75,7	27		
01 351661 34107	K1 Q	RT	49,7	74,5	26		
01 351661 34287	K1 Q	RT	49,4	74,7	26		
01 351661 34331	K1 Q	RT	49,7	74,2	26		
02 351660 34360	K1 Q	RT	50,2	74,8	27		

A04 201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department



B. BALDAUF
Test House Manager

Inspector's stamp

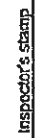
Date 05.11.10

PP 1

Enförlutningen sätas i Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		7/...	
MATERIAL TEST REPORT (NTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON	
B02 Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09		DIL-HUE-2:R30-2010-01-31			

C10-C29 Tensile test												
B14 Item No.	B07.2 Heat No.	B05 Rollplate/ Test No.	Reference (heat) treatment	B05	C01 C02 C03 C04 C05	C10 C11	C12	C13	C14-C15	A %	A %	LO=2IN
					Temp. GRF	KSI RP02	RM			LO=8IN		
02	351660	34479			KL Q	RT 49,9	75,4			27		
02	351660	34507			KL Q	RT 50,6	75,4			27		
02	351660	34541			KL Q	RT 50,9	75,4			27		
02	351660	34646			KL Q	RT 50,0	75,4			27		
02	351660	34695			KL Q	RT 50,3	75,3			28		
02	351661	34129			KL Q	RT 50,0	74,5			27		
02	351661	34269			KL Q	RT 49,7	75,3			29		
02	351661	34342			KL Q	RT 49,6	75,1			26		
03	351658	35146			KL Q	RT 48,0	74,2			27		
03	351658	35147			KL Q	RT 49,2	74,7			28		
03	351658	35193			KL Q	RT 48,1	74,5			28		
03	351658	35239			KL Q	RT 49,2	74,5			29		
03	351658	35350			KL Q	RT 48,3	74,2			26		
03	351659	34829			KL Q	RT 49,0	75,0			29		
03	351659	34831			KL Q	RT 49,3	74,7			27		
03	351659	34851			KL Q	RT 49,0	74,5			29		
03	351659	34997			KL Q	RT 49,0	74,4			27		
03	351659	35145			KL Q	RT 48,7	74,4			27		
04	351658	35403			KL Q	RT 50,0	74,1			29		
04	351658	35450			KL Q	RT 49,0	74,4			27		
04	351658	35453			KL Q	RT 49,4	74,0			28		
04	351658	35458			KL Q	RT 50,3	75,0			29		
04	351658	35463			KL Q	RT 50,5	75,1			27		

A04		20/10/2023 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke : Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
							
QM-System: Certification as per ISO 9001		B. BALDAUF Test House Manager		Date 05.11.10		pp 1	



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10	359527-001	8/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	A07.1 No. ED10553-J1010-ER		
DH	Final receiver	EDMONTON STEEL, EDMON		
S02/ Steel design. SA516-70		A07.2 No. SA20-S5		
S03 Any suppl. requirements		2ASME-II-A:07+A09		
DIL-HUE-2-R30-2010-01-31				

C10-C29 Tensile test									
S14 Item No.	S07.1 Heat No.	S05 Rol. plate/ Test No.	Reference (heat) treatment	C04 C02/ C03 C01	C10 C03 Temp. GRF	C11 KSI RPOZ	C12 RM	C13 A % LD=3IN	C14-C15 A % LD=2IN
05	351661	33863		K1 Q	RT	50,5	74,5	27	
05	351661	34106		K1 Q	RT	49,9	74,2	28	
05	351664	32679		K1 Q	RT	47,9	72,8	28	
05	351664	32686		K1 Q	RT	48,3	72,8	28	
05	351664	32697		K1 Q	RT	48,6	72,8	28	
05	351664	32700		K1 Q	RT	48,4	73,2	28	
05	351664	32701		K1 Q	RT	48,3	73,5	28	
05	351664	32814		K1 Q	RT	47,9	73,5	29	
06	351663	33457		K1 Q	RT	48,1	73,7	27	
07	351659	34697		K1 Q	RT	49,4	73,8	30	
07	351659	34764		K1 Q	RT	48,7	73,8	27	
07	351659	34779		K1 Q	RT	48,6	73,7	28	
07	351659	34780		K1 Q	RT	47,6	73,7	29	
07	351659	34827		K1 Q	RT	48,1	74,0	31	
08	351664	32678		K1 QV	RT	47,7	74,0		38
09	351663	33459		K1 QV	RT	50,6	75,4		37
09	351663	33460		K1 QV	RT	52,1	75,5		36
09	351663	33690		K1 QV	RT	47,6	74,7		35
09	351663	33768		K1 QV	RT	49,3	75,3		35
09	351663	33771		K1 QV	RT	48,6	74,8		35

A04			AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Date 05.11.10 Inspector's stamp PP 1
Z011202Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001				
Manufacturer's mark				

Entkürten Sie Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
 MATERIAL TEST REPORT (MTR)

A03 Established inspecting body DH A06 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10553-J1010-ER
 Final receiver EDMONTON STEEL, EDMONT A07.2 No.

A04 Sheet 9/...

A08 Manufacturer's order/ A09 Certificate No. 359527-001
 B01 Product HOT ROLLED PLATES

A10 Advice of dispatch No./ Date of dispatch 372664-05.11.10

B02 Steel design. SA516-70
 B03 Any suppl. requirements ASME-II-A:07+A09 DIL-HUE-2:R30-2010-01-31

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35 G31 Individual values	C32 Mean value
01	351660	34359		KL	0	RT	HBW 10/3000	HB 149	150
01	351660	34482		KL	0	RT	HBW 10/3000	HB 149	149
01	351660	34532		KL	0	RT	HBW 10/3000	HB 150	150
01	351660	34572		KL	0	RT	HBW 10/3000	HB 150	151
01	351660	34692		KL	0	RT	HBW 10/3000	HB 150	151
01	351661	34107		KL	0	RT	HBW 10/3000	HB 149	148
01	351661	34287		KL	0	RT	HBW 10/3000	HB 150	150
01	351661	34331		KL	0	RT	HBW 10/3000	HB 148	148
02	351660	34360		KL	0	RT	HBW 10/3000	HB 149	149
02	351660	34479		KL	0	RT	HBW 10/3000	HB 150	151
02	351660	34507		KL	0	RT	HBW 10/3000	HB 151	151
02	351660	34541		KL	0	RT	HBW 10/3000	HB 148	148
02	351660	34546		KL	0	RT	HBW 10/3000	HB 149	149
02	351660	34695		KL	0	RT	HBW 10/3000	HB 149	149
02	351661	34129		KL	0	RT	HBW 10/3000	HB 149	149
02	351661	34269		KL	0	RT	HBW 10/3000	HB 149	149
02	351661	34342		KL	0	RT	HBW 10/3000	HB 148	148
03	351658	35146		KL	0	RT	HBW 10/3000	HB 149	149
03	351658	35147		KL	0	RT	HBW 10/3000	HB 151	150
03	351658	35193		KL	0	RT	HBW 10/3000	HB 147	147
03	351658	35239		KL	0	RT	HBW 10/3000	HB 150	149
03	351658	35350		KL	0	RT	HBW 10/3000	HB 148	148
03	351659	34829		KL	0	RT	HBW 10/3000	HB 147	147
03	351659	34831		KL	0	RT	HBW 10/3000	HB 152	150

Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department

B. BALDAUF Test House Manager

Inspector's stamp Date 05.11.10 PP 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10	359527-001	10/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A05 Purchaser	B01 Product		
DH	Final receiver	HOT ROLLED PLATES		
EDMONTON STEEL, EDMONTON A07.1 No. ED10553-J1010-ER				
EDMONTON STEEL, EDMONTON A07.2 No.				
SA20-SS				
B02 Steel design. SAE16-70				
B03 Any suppl. ASME-II-A-07+A09				
requirements DIL-HOE-2:R30-2010-01-31				

C30-C39 Hardness test										C32	
B14 Item No.	B07.2 Heat No.	B07.1 Relplaced/ Test No.	B05 Reference (heat) treatment	C01	C02/C04	C03 Temp. GR.F	C30 Method of test	C35 C31 Individual values		Mean value	
03	351659	34851		K1	O	RT	HBW 10/3000	HB 148	147	148	148
03	351659	34997		K1	O	RT	HBW 10/3000	HB 146	146	146	146
03	351659	35145		K1	O	RT	HBW 10/3000	HB 147	148	146	147
04	351658	35145		K1	O	RT	HBW 10/3000	HB 149	149	146	148
04	351658	35403		K1	O	RT	HBW 10/3000	HB 147	148	146	147
04	351658	35453		K1	O	RT	HBW 10/3000	HB 147	146	145	146
04	351658	35458		K1	O	RT	HBW 10/3000	HB 149	150	149	149
04	351658	35463		K1	O	RT	HBW 10/3000	HB 151	151	151	151
05	351661	33863		K1	O	RT	HBW 10/3000	HB 148	148	148	148
05	351661	34106		K1	O	RT	HBW 10/3000	HB 148	148	148	148
05	351664	32679		K1	O	RT	HBW 10/3000	HB 145	145	145	145
05	351664	32686		K1	O	RT	HBW 10/3000	HB 145	144	145	145
05	351664	32697		K1	O	RT	HBW 10/3000	HB 147	146	146	146
05	351664	32700		K1	O	RT	HBW 10/3000	HB 145	146	145	145
05	351664	32701		K1	O	RT	HBW 10/3000	HB 146	146	145	146
05	351664	32814		K1	O	RT	HBW 10/3000	HB 145	148	148	147
06	351663	33457		K1	O	RT	HBW 10/3000	HB 146	146	146	146
07	351659	34697		K1	O	RT	HBW 10/3000	HB 145	146	145	145
07	351659	34764		K1	O	RT	HBW 10/3000	HB 146	146	146	146
07	351659	34779		K1	O	RT	HBW 10/3000	HB 146	146	146	146
07	351659	34780		K1	O	RT	HBW 10/3000	HB 145	145	144	145
07	351659	34827		K1	O	RT	HBW 10/3000	HB 145	145	145	145
08	351664	32678		K1	O	RT	HBW 10/3000	HB 146	145	145	145
09	351663	33459		K1	O	RT	HBW 10/3000	HB 150	150	154	151

A04	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 05.11.10	PP 1
QM-System: Certification as per ISO 9001				
Manufacturers' mark				



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
 MATERIAL TEST REPORT (NTR)

A05 Established inspecting body
 DH
 A06 Purchaser
 Final receiver
 EDMONTON STEEL, EDMON A07.1 No. ED10553-J1010-ER
 EDMONTON STEEL, EDMON A07.2 No. SR20-S5

B02 Steel design. SA516-70
 B03 Any suppl. ASME-II-A:07+A09 requirements DIL-H08-2:R30-2010-01-31

C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35 Individual values	C32 Mean value
09	351663	33460		K1	O	RT	HBW 10/3000	HB 150	150
09	351663	33690		K1	O	RT	HBW 10/3000	HB 150	148
09	351663	33768		K1	O	RT	HBW 10/3000	HB 148	149
09	351663	33771		K1	O	RT	HBW 10/3000	HB 148	148

C40-C49 Impact test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C40 Width of test piece	C44 Type of test piece	C45 Energy
01	351660	34359		K1	LV	-51	CHP-V	CHP-V	139
01	351660	34482		K1	LV	-51	CHP-V	CHP-V	201
01	351660	34532		K1	LV	-51	CHP-V	CHP-V	111
01	351660	34572		K1	LV	-51	CHP-V	CHP-V	122
01	351660	34692		K1	LV	-51	CHP-V	CHP-V	131
01	351661	34107		K1	LV	-51	CHP-V	CHP-V	204
01	351661	34287		K1	LV	-51	CHP-V	CHP-V	218
01	351661	34331		K1	LV	-51	CHP-V	CHP-V	200
02	351660	34360		K1	LV	-51	CHP-V	CHP-V	92
02	351660	34479		K1	LV	-51	CHP-V	CHP-V	131
02	351660	34507		K1	LV	-51	CHP-V	CHP-V	148
02	351660	34541		K1	LV	-51	CHP-V	CHP-V	206
02	351660	34646		K1	LV	-51	CHP-V	CHP-V	191
02	351660	34695		K1	LV	-51	CHP-V	CHP-V	191
02	351661	34129		K1	LV	-51	CHP-V	CHP-V	143
02	351661	34269		K1	LV	-51	CHP-V	CHP-V	98
02	351661	34342		K1	LV	-51	CHP-V	CHP-V	195

A04
 2017ZD2/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.
 QM-System: Certification as per ISO 9001
 AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department
 AHB
 B. BALDAUF
 Test House Manager
 Inspector's stamp
 Date 05.11.10
 PP 1

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		12/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07 No.		A08	
DH		Edmonton Steel, Edmonton		Edmonton Steel, Edmonton		HOT ROLLED PLATES	
B02/ Steel design		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09		DIL-HUE-2-R30-2010-01-31			

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rot.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 C42 Individual values AV/FILBF	C43 Mean value
03	351658	35146		K1	LV	-51	-51	CHP-V			AV 200	147
03	351658	35147		K1	LV	-51	-51	CHP-V			AV 140	149
03	351658	35193		K1	LV	-51	-51	CHP-V			AV 200	114
03	351658	35239		K1	LV	-51	-51	CHP-V			AV 130	120
03	351658	35350		K1	LV	-51	-51	CHP-V			AV 170	192
03	351659	34829		K1	LV	-51	-51	CHP-V			AV 119	147
03	351659	34831		K1	LV	-51	-51	CHP-V			AV 116	149
03	351659	34851		K1	LV	-51	-51	CHP-V			AV 89	162
03	351659	34997		K1	LV	-51	-51	CHP-V			AV 193	153
03	351659	35145		K1	LV	-51	-51	CHP-V			AV 92	166
04	351658	35403		K1	LV	-51	-51	CHP-V			AV 124	174
04	351658	35450		K1	LV	-51	-51	CHP-V			AV 165	133
04	351658	35453		K1	LV	-51	-51	CHP-V			AV 103	118
04	351658	35458		K1	LV	-51	-51	CHP-V			AV 115	111
04	351658	35463		K1	LV	-51	-51	CHP-V			AV 127	102
05	351661	33863		K1	LV	-51	-51	CHP-V			AV 76	138
05	351661	34106		K1	LV	-51	-51	CHP-V			AV 202	143
05	351664	32679		K1	LV	-51	-51	CHP-V			AV 105	171
05	351664	32686		K1	LV	-51	-51	CHP-V			AV 197	208
05	351664	32697		K1	LV	-51	-51	CHP-V			AV 128	151
05	351664	32700		K1	LV	-51	-51	CHP-V			AV 115	119
05	351664	32701		K1	LV	-51	-51	CHP-V			AV 119	113
05	351664	32814		K1	LV	-51	-51	CHP-V			AV 91	116
06	351663	33457		K1	LV	-51	-51	CHP-V			AV 131	154

A04		Z01/Z02/Z03. We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1530, D-66748 Dillingen/Saar Inspection department		A01	
D/H Manufacturer's mark		B. BALDAUF Test House Manager		A01B Inspector's stamp		Date 05.11.10 PP 1	
QM-System: Certification as per ISO 9001							



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		13/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		A07.1 No. ED10553-J1010-ER	
DH		Final receiver		EDMONTON STEEL, EDMON		A07.2 No.	

B02 Steel design		SA516-70	
B03 Any suppl. requirements		ASME-II-A-07+A09	
		DIL-HUE-2:R30-2010-01-31	

C40-C49 Impact test											
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 C42 Individual values AV±FLBF
07	351659	34697		KL	LV	-51		CHP-V			
07	351659	34764		KL	LV	-51		CHP-V			
07	351659	34779		KL	LV	-51		CHP-V			
07	351659	34780		KL	LV	-51		CHP-V			
07	351659	34827		KL	LV	-51		CHP-V			
08	351664	32678		KL	LV	-51		CHP-V			
09	351663	33459		KL	LV	-51		CHP-V			
09	351663	33460		KL	LV	-51		CHP-V			
09	351663	33690		KL	LV	-51		CHP-V			
09	351663	33768		KL	LV	-51		CHP-V			
09	351663	33771		KL	LV	-51		CHP-V			

C70-C99 Chemical composition % - Heat analysis											
B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR
351658	Y	0,172	0,372	1,20	0,011	0,0006	0,0067	0,019	0,005	0,022	0,020
351659	Y	0,177	0,375	1,19	0,010	0,0007	0,0059	0,034	0,010	0,034	0,026
351660	Y	0,177	0,372	1,18	0,010	0,0008	0,0070	0,025	0,008	0,032	0,023
351661	Y	0,171	0,380	1,18	0,011	0,0009	0,0067	0,033	0,009	0,039	0,026
351663	Y	0,173	0,376	1,19	0,012	0,0011	0,0082	0,027	0,016	0,036	0,041
351664	Y	0,165	0,355	1,17	0,011	0,0009	0,0055	0,054	0,011	0,053	0,039

A04		2012/02/203 Vlc hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
		QM-System: Certification as per ISO 9001				Date 05.11.10	
Manufacturer's mark		B. BALDAUF Test House Manager		Inspector's stamp		PP 1	



Erklärung: siehe Protokolle/Explication voir au verso (See reverse for explanations (www.dillinger.de/certificate))

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991.A1:1995 + AS PER ISO 10474:1991		372664-05.11.10	359527-001	14/...
MATERIAL TEST REPORT (MTR)		801 Product HOT ROLLED PLATES		
A05 Established inspecting body	A09 Purchaser	EDMONTON STEEL, EDMON		
DE	Final receiver	EDMONTON STEEL, EDMON		
802 Steel design. SA516-70		SA20-S5		
803 Any suppl. ASME-II-A:07+A09				
requirements DIL-HUE-2:R30-2010-01-31				

C70-C99 Chemical composition % - Heat analysis

Heat	C70	B	CA	AL-T
351658	Y	0,0002	0,0011	0,031
351659	Y	0,0002	0,0018	0,033
351660	Y	0,0001	0,0019	0,032
351661	Y	0,0002	0,0018	0,037
351662	Y	0,0002	0,0016	0,037
351664	Y	0,0002	0,0015	0,033

C94 Heat analysis Carbon equivalent / Alloying restrictions

Heat	FO-02=	FO-51=	FO-55=	FO-78=	FO-91=
351658	0,38	0,000	0,07	0,03	7,0
351659	0,39	0,000	0,10	0,04	6,7
351660	0,38	0,001	0,09	0,03	6,7
351661	0,38	0,000	0,11	0,04	6,9
351662	0,39	0,002	0,12	0,06	6,9
351664	0,38	0,000	0,16	0,05	7,1

C95 Ladle treatment

ITEM NO.: 01-09
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C95 Further information about ladle treatment

ITEM NO.: 01-09
CALCIUM TREATED

A04	201702203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar	Inspection department	Date 05.11.10	PP 1
			Inspector's stamp		
QM-System: Certification as per ISO 9001		B. BALDAUF	Test House Manager		



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991.A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body

A06 Purchaser

EDMONTON STEEL, EDMON

EDMONTON STEEL, EDMON

A07.1 No.

ED10553-J1010-ER

A07.2 No.

B02/ Steel design SA516-70

B03 Any suppl. ASME-II-A:07+A09

requirements DIL-HUE-2:R30-2010-01-31

Final receiver

SA20-S5

A10 Advice of dispatch No./
Date of dispatch

372664-05.11.10

A08 Manufacturer's order/
A03 Certificate No.

359527-001

B01 Product

HOT ROLLED PLATES

Sheet

15/...

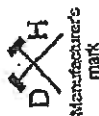
C70-C99 Chemical composition % - Product analysis

	B07.1		C	Si	Mn	P	S	N	Cu	Mo	Ni	Cr	V	Nb	SH	Ti
B07.2 Heat	Test No.	C01														
351658	35350	K1	0,171	0,373	1,20	0,010	0,0007	0,0064	0,020	0,004	0,022	0,020	0,000	0,000	0,000	0,003
351658	35463	K1	0,177	0,362	1,19	0,011	0,0008	0,0086	0,020	0,004	0,022	0,020	0,000	0,000	0,000	0,002
351659	34696	K1	0,172	0,371	1,16	0,009	0,0010	0,0065	0,035	0,010	0,037	0,026	0,000	0,000	0,001	0,002
351659	34764	K1	0,169	0,367	1,17	0,010	0,0007	0,0061	0,035	0,010	0,037	0,026	0,000	0,000	0,001	0,002
351659	34851	K1	0,169	0,372	1,19	0,010	0,0009	0,0060	0,025	0,006	0,025	0,023	0,000	0,000	0,000	0,002
351660	34482	K1	0,171	0,368	1,16	0,009	0,0010	0,0065	0,025	0,007	0,031	0,023	0,001	0,000	0,001	0,002
351660	34646	K1	0,173	0,370	1,16	0,009	0,0008	0,0066	0,031	0,008	0,034	0,026	0,000	0,000	0,000	0,002
351661	34106	K1	0,172	0,380	1,16	0,010	0,0008	0,0068	0,032	0,011	0,040	0,026	0,000	0,001	0,001	0,002
351661	34287	K1	0,169	0,369	1,15	0,010	0,0009	0,0070	0,030	0,009	0,039	0,025	0,001	0,000	0,001	0,002
351661	34310	K1	0,173	0,372	1,15	0,010	0,0009	0,0085	0,025	0,016	0,037	0,041	0,000	0,001	0,001	0,002
351663	33457	K1	0,169	0,369	1,18	0,011	0,0009	0,0085	0,027	0,015	0,036	0,041	0,000	0,001	0,001	0,002
351663	33690	K1	0,169	0,372	1,18	0,012	0,0014	0,0085	0,027	0,015	0,036	0,041	0,000	0,001	0,001	0,002
351664	32678	K1	0,171	0,359	1,15	0,011	0,0010	0,0052	0,054	0,011	0,053	0,037	0,001	0,000	0,002	0,001
351664	32686	K1	0,167	0,350	1,13	0,010	0,0011	0,0054	0,054	0,012	0,053	0,038	0,001	0,000	0,002	0,001

C01

	B07.1		B	CA	AL-T
B07.2 Heat	Test No.				
351658	35350	K1	0,0001	0,0012	0,031
351658	35463	K1	0,0001	0,0012	0,027
351659	34696	K1	0,0001	0,0020	0,033
351659	34764	K1	0,0001	0,0019	0,033
351659	34851	K1	0,0001	0,0016	0,032
351660	34482	K1	0,0000	0,0018	0,033
351660	34646	K1	0,0001	0,0020	0,032
351661	34106	K1	0,0002	0,0019	0,033
351661	34287	K1	0,0001	0,0020	0,034

201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. BALDAUF
Test House Manager

Inspector's stamp Date 05.11.10

PP

A01



Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10553-J1010-ER
DE Final receiver EDMONTON STEEL, EDMON A07.2 No.

B02/ Sheet design. SA516-70
B03 Any suppl. ASME-II-A:07+A09
requirements DIL-HUE-2:R30-2010-01-31

A10 Advice of dispatch No./
Date of dispatch 372664-05.11.10

A08/ Manufacturer's order/
A03 Certificate No. 359527-001

Sheet 16/...

B01 Product
HOT ROLLED PLATES

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	CU1	B	CA	AL-T
351661	34310	K1	0,0002	0,0019	0,033
351663	33457	K1	0,0002	0,0017	0,036
351663	33690	K1	0,0000	0,0016	0,037
351664	32678	K1	0,0002	0,0015	0,032
351664	32686	K1	0,0002	0,0015	0,032

C94 Product analysis: Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	CU1	FO-02=	FO-51=	FO-55=
351658	35350	K1	0,38	0,000	0,07
351658	35463	K1	0,38	0,000	0,07
351659	34696	K1	0,38	0,000	0,11
351659	34764	K1	0,38	0,000	0,11
351659	34851	K1	0,38	0,000	0,08
351660	34482	K1	0,37	0,001	0,09
351660	34646	K1	0,38	0,000	0,10
351661	34106	K1	0,38	0,001	0,11
351661	34287	K1	0,37	0,000	0,11
351661	34310	K1	0,38	0,001	0,10
351663	33457	K1	0,38	0,001	0,12
351663	33690	K1	0,38	0,001	0,12
351664	32678	K1	0,38	0,001	0,16
351664	32686	K1	0,37	0,001	0,16

Z012020203 Wie hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



B. BALDAUF
Test House Manager

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp Date 05.11.10

PP 1

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body

A06 Purchaser

Final receiver

EDMONTON STEEL, EDMON

A07.1 No. ED10553-J1010-ER

A07.2 No.

EDMONTON STEEL, EDMON

B02 Steel design SA516-70

B03 Any suppl. ASME-II-A-07+A09

requirements DILL-HUE-2:R30-2010-01-31

SA20-S5

C94 Carbon equivalent formula / Alloying restrictions

FO-02 = C+(MN/6)+(CR+MO+V)/5+(NI+CU)/15

FO-51 = V +NB

FO-55 = CU+MO+NI+CR

FO-78 = CR+MO

FO-91 = MN/C

D01 Marking and identification, surface appearance, shape and dimensional properties

ITEM NO.: 01-09

RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS

SURFACE AS PER ASME-SA20

THICKNESS AS PER ASME-SA20

LENGTH AND WIDTH AS PER ASME-SA20

FLATNESS AS PER 1/2-ASME-SA20



A04



Manufacturer's mark

Z01/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. BALDAUF
Test House Manager

Inspector's stamp Date 05.11.10

PP 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+AI:1995 + AS PER ISO 10474:1991
 MATERIAL TEST REPORT (MTR)

A03 Manufacturer's order/
 Certificate No. 362037-002
 B01 Product
 HOT ROLLED PLATES

A04 Advice of dispatch No./
 Date of dispatch 380370-18.02.11
 Sheet 1/...



16037

SA20-S5

B02/ Steel design. SA516-70

B03 Any suppl. ASME-II-A:1.0

requirements DIL-HUE-2:R31-2010-11-22

B01-B99 Description of the product

B14. Item No.	B08 Number of pieces	B03 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,5000 x	172,00000 x	344,00000 x	3806	N	351655	60830-01	
01	1	0,5000 x	172,00000 x	344,00000 x	3806	N	351655	60830-02	
**	2				7612				
02	1	0,6250 x	146,00000 x	438,00000 x	5141	N	354638	93854-01	
02	1	0,6250 x	146,00000 x	438,00000 x	5141	N	355728	93391-02	
02	1	0,6250 x	146,00000 x	438,00000 x	5141	N	355728	93391-03	
**	3				15423				
03	1	0,6250 x	172,00000 x	344,00000 x	4757	N	354638	60834-02	
05	1	0,8750 x	150,00000 x	450,00000 x	7598	N	355728	93060-01	
05	1	0,8750 x	150,00000 x	450,00000 x	7598	N	355728	93060-02	
05	1	0,8750 x	150,00000 x	450,00000 x	7598	N	355728	93060-03	
**	3				22794				
06	1	0,8750 x	178,00000 x	356,00000 x	7133	N	354638	93547-01	
06	1	0,8750 x	178,00000 x	356,00000 x	7133	N	354638	93547-02	
06	1	0,8750 x	178,00000 x	356,00000 x	7133	N	355137	93540-01	
06	1	0,8750 x	178,00000 x	356,00000 x	7133	N	355137	93540-02	
06	1	0,8750 x	178,00000 x	356,00000 x	7133	N	355137	93546-01	
06	1	0,8750 x	178,00000 x	356,00000 x	7133	N	355137	93546-02	
**	6				42798				
07	1	1,0000 x	150,00000 x	450,00000 x	8683	N	355728	93269-01	
07	1	1,0000 x	150,00000 x	450,00000 x	8683	N	355730	92491-01	
07	1	1,0000 x	150,00000 x	450,00000 x	8683	N	355730	92491-02	
07	1	1,0000 x	150,00000 x	450,00000 x	8683	N	355730	92491-03	

201/202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



Manufacturer's mark



B. BRÄUFL

Test House Manager

A01

AG der Dillinger Hüttenwerke
 Postfach 1580, D-66748 Dillingen/Saar
 Inspection department

Inspector's stamp Date 18.02.11

PP



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body DH	A06 Purchaser Final receiver	A07.1 No. ED10557-J1010-ER EDMONTON STEEL, EDMON	A07.2 No. EDMONTON STEEL, EDMON	A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet

B02 Steel design. SA516-70

B03 Any suppl. ASME-II-A:10

requirements DIL-HUE-2-R31-2010-11-22

SA20-S5

B01-B99 Description of the product

B14 Item No.	B09 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
07	1	1,0000	X 150,00000	X 450,00000	8683	N	355730	92508-01	
**	5				43415				
08	1	1,0000	X 178,00000	X 356,00000	8152	N	355134	93530-01	
08	1	1,0000	X 178,00000	X 356,00000	8152	N	355137	93528-01	
08	1	1,0000	X 178,00000	X 356,00000	8152	N	355137	93529-01	
**	3				24456				
10	1	1,1250	X 121,00000	X 480,00000	8405	N	355730	92371-01	
10	1	1,1250	X 121,00000	X 480,00000	8405	N	355730	92371-02	
10	1	1,1250	X 121,00000	X 480,00000	8405	N	355730	92483-02	
10	1	1,1250	X 121,00000	X 480,00000	8405	N	355732	92290-01	
**	4				33620				
***	27				194875				

B04 Product delivery condition

ITEM NO.: 01-10

N: HT: 1670 GR.F +36 -27 GR.F

SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)

COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-10

STEEL DESIGNATION SA516 70 MSLV SA516 60 MSLV

HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

A04		Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	
		QM-System: Certification as per ISO 9001			
		B. BALDAUF			
		Test House Manager		Inspector's stamp	
				Date 18.02.11	
Manufacturer's mark		PP 1			



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11		362037-002		3/-	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		EDMONTON STEEL, EDMONT		EDMONTON STEEL, EDMONT	
B02/ Steel design.		SA516-70		EDMONTON STEEL, EDMONT		EDMONTON STEEL, EDMONT	
B03 Any suppl.		ASME-II-A:10		EDMONTON STEEL, EDMONT		EDMONTON STEEL, EDMONT	
requirements		DIL-HUE-2:R31-2010-11-22		SA20-S5		SA20-S5	

B07-B99 Further information about the product

ITEM NO.: 01-10
THICKNESS REDUCTION RATIO $\geq 3,0$ IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 Item No.	B07.1 Heat No.	B05 Rel. plate/ Test No.	Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13 A % LP-SIN	C14-C15
01	351665	60830		K1 Q	RT	53,2	25	
02	354638	93854		K1 Q	RT	50,6	26	
02	355728	93391		K1 Q	RT	52,6	25	
03	354638	60834		K1 Q	RT	51,5	25	
05	355728	93060		K1 Q	RT	49,7	27	
06	354638	93547		K1 Q	RT	50,9	26	
06	355137	93540		K1 Q	RT	48,9	30	
06	355137	93546		K1 Q	RT	49,9	29	
07	355728	93269		K1 Q	RT	51,0	29	
07	355730	92491		K1 Q	RT	49,9	29	
07	355730	92508		K1 Q	RT	49,3	29	
08	355134	93530		K1 Q	RT	48,1	33	
08	355137	93528		K1 Q	RT	49,2	28	
08	355137	93529		K1 Q	RT	49,9	28	
10	355730	92371		K1 Q	RT	49,7	29	
10	355730	92483		K1 Q	RT	50,0	33	
10	355732	92290		K1 Q	RT	50,0	29	

A04	D/H Manufacturer's mark	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 18.02.11	PP 1
QM-System: Certification as per ISO 9001						



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet					
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11		362037-002		4/...					
MATERIAL TEST REPORT (MTR)				B01 Product							
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.					
DH		Final receiver		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON					
B02/ Steel design.		SA516-70		A07.1 No.		ED10557-J1010-ER					
B03 Any suppl.		ASME-II-A:10		A07.2 No.							
requirements		DIL-HUB-2-R31-2010-11-22		SA20-S5							
C30-C39 Hardness test											
B14 Item No.	B07.2 Heat No.	B07.1 Replated/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C39 Method of test	C35 C31 Individual values	C32 Mean value		
01	351665	60830		KL	0	RT	HBW 10/3000	HB 150 152	151		
02	354638	93854		KL	0	RT	HBW 10/3000	HB 150 150	150		
02	355728	93391		KL	0	RT	HBW 10/3000	HB 152 151	150		
03	354638	60834		KL	0	RT	HBW 10/3000	HB 145 150	148		
05	355728	93060		KL	0	RT	HBW 10/3000	HB 148 149	148		
06	354638	93547		KL	0	RT	HBW 10/3000	HB 148 147	148		
06	355137	93540		KL	0	RT	HBW 10/3000	HB 150 151	150		
06	355137	93546		KL	0	RT	HBW 10/3000	HB 151 152	151		
07	355728	93269		KL	0	RT	HBW 10/3000	HB 149 148	148		
07	355730	92491		KL	0	RT	HBW 10/3000	HB 144 144	144		
07	355730	92508		KL	0	RT	HBW 10/3000	HB 149 149	148		
08	355134	93530		KL	0	RT	HBW 10/3000	HB 145 146	145		
08	355137	93528		KL	0	RT	HBW 10/3000	HB 148 148	148		
08	355137	93529		KL	0	RT	HBW 10/3000	HB 147 146	146		
10	355730	92371		KL	0	RT	HBW 10/3000	HB 145 145	145		
10	355730	92483		KL	0	RT	HBW 10/3000	HB 145 146	146		
10	355732	92290		KL	0	RT	HBW 10/3000	HB 145 145	145		
C40-C49 Impact test											
B14 Item No.	B07.2 Heat No.	B07.1 Replated/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GRF	C41 Width of test piece	C44 Type of test piece	C46 Energy	C42 Individual values AV=FT18F	C43 Mean value
01	351665	60830		KL	LV	-51		CEP-V	AV 185	74	147
02	354638	93854		KL	LV	-51		CEP-V	AV 97	135	116
02	355728	93391		KL	LV	-51		CEP-V	AV 140	180	167
03	354638	60834		KL	LV	-51		CEP-V	AV 142	136	136
A04 2012/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.								AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department			A01
D/H Manufacturer's mark				QM-System: Certification as per ISO 9001				A01		Inspector's stamp Date 18.02.11	
				B. BALDAUF Test House Manager				A01		PP 1	



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11		362037-002		5/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No. ED10557-J1010-ER			
DH		Final receiver		EDMONTON STEEL, EDMON		HOT ROLLED PLATES	
				EDMONTON STEEL, EDMON			
B02/ Steel design.		SA516-70		A07.2 No.			
B03 Any suppl.		ASME-II-A:10					
requirements		DIL-HUE-2:R31-2010-11-22					
				SA20-S5			

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C61	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45-C42 Individual values AV=FTLBF	C43 Mean value
05	355728	93060		KL LV	-51	-51		CHP-V	AV 114	105	124	114
06	354638	93547		KL LV	-51	-51		CHP-V	AV 104	127	116	116
06	355137	93540		KL LV	-51	-51		CHP-V	AV 213	118	139	157
06	355137	93546		KL LV	-51	-51		CHP-V	AV 122	214	127	154
07	355728	93269		KL LV	-51	-51		CHP-V	AV 142	155	125	141
07	355730	92491		KL LV	-51	-51		CHP-V	AV 156	120	84	120
07	355730	92508		KL LV	-51	-51		CHP-V	AV 114	146	123	128
08	355134	93530		KL LV	-51	-51		CHP-V	AV 115	106	194	138
08	355137	93528		KL LV	-51	-51		CHP-V	AV 94	201	226	174
08	355137	93529		KL LV	-51	-51		CHP-V	AV 118	111	125	118
10	355730	92371		KL LV	-51	-51		CHP-V	AV 103	115	122	113
10	355730	92483		KL LV	-51	-51		CHP-V	AV 100	119	106	108
10	355732	92290		KL LV	-51	-51		CHP-V	AV 127	109	116	117

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
351665	Y	0,180	0,375	1,17	0,012	0,0009	0,0067	0,045	0,010	0,041	0,036	0,000	0,000	0,002	0,002
354638	Y	0,171	0,372	1,19	0,009	0,0012	0,0070	0,030	0,012	0,030	0,037	0,000	0,000	0,001	0,002
355134	Y	0,171	0,383	1,16	0,007	0,0005	0,0066	0,021	0,014	0,025	0,020	0,000	0,000	0,001	0,003
355137	Y	0,179	0,387	1,18	0,008	0,0005	0,0066	0,039	0,009	0,050	0,023	0,000	0,000	0,001	0,002
355728	Y	0,175	0,372	1,18	0,009	0,0013	0,0070	0,036	0,021	0,059	0,045	0,000	0,000	0,002	0,003
355730	Y	0,178	0,372	1,17	0,008	0,0010	0,0069	0,034	0,010	0,033	0,042	0,000	0,000	0,002	0,003
355732	Y	0,181	0,357	1,16	0,007	0,0011	0,0076	0,039	0,010	0,040	0,039	0,000	0,000	0,003	0,002

A04 2012/2023 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

AHB

AG der Dillinger Hüttenwerke
Postfach 1589, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp
Date 18.02.11

PP 1



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11		362037-002		6/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body		Final receiver		EDMONTON STEEL, EDMON		HOT ROLLED PLATES
DIL-HUE-2:R31-2010-11-22		SA20-S5		A07.1 No. ED10557-J1010-ER		
B02/ Steel design		SA516-70		A07.2 No.		
B03 Any suppl.		ASME-II-A:10				
requirements						
C70-C99 Chemical composition % - Heat analysis						
B07.2 Heat	C70	B	CA	AL-T		
351665	Y	0,0002	0,0016	0,033		
354638	Y	0,0001	0,0026	0,034		
355134	Y	0,0002	0,0011	0,037		
355137	Y	0,0002	0,0010	0,035		
355728	Y	0,0002	0,0028	0,034		
355730	Y	0,0000	0,0017	0,034		
355732	Y	0,0000	0,0019	0,033		
C94 Heat analysis Carbon equivalent / Alloying restrictions						
B07.2 Heat		FO-02=	0,39	FO-51=	0,13	FO-78=
351665		FO-02=	0,38	FO-51=	0,11	FO-78=
354638		FO-02=	0,37	FO-51=	0,08	FO-78=
355134		FO-02=	0,39	FO-51=	0,12	FO-78=
355137		FO-02=	0,39	FO-51=	0,16	FO-78=
355728		FO-02=	0,39	FO-51=	0,12	FO-78=
355730		FO-02=	0,39	FO-51=	0,13	FO-78=
355732		FO-02=	0,39	FO-51=	0,05	FO-91=
C95 Ladle treatment						
ITEM NO.: 01-10						
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL						
C95: Further information about ladle treatment						
ITEM NO.: 01-10						
CALCIUM TREATED						
A04		201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01
		B. BALDAUF Test House Manager		AHB Inspector's stamp		pp 1



c70-c99 Chemical composition % - Product analysis

203

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

Inspector's stamp Date 18.02.11



DILLINGER HÜTTE

Erfüllungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		A10 Advice of dispatch No./ Date of dispatch 380370-18.02.11	A03 Manufacturer's order/ Certificate No. 362037-002	Sheet 8/...
MATERIAL TEST REPORT (MTR)		801 Product HOT ROLLED PLATES		
A05 Established inspecting body DH	A08 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10557-J1010-ER		
Final receiver EDMONTON STEEL, EDMON	A07.2 No.			
SA20-S5				
B02/ Steel design. SA516-70				
B03 Any suppl. requirements	ASME-III-A:10			
DIL-HUE-2:R31-2010-11-22				

C70-C99 Chemical composition % - Product analysis					
B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
355728	93269	K1	0,0001	0,0023	0,033
355728	93391	K1	0,0001	0,0022	0,031
355728	93534	K1	0,0003	0,0024	0,033
355730	92483	K1	0,0002	0,0016	0,034
355730	92486	K1	0,0000	0,0015	0,033
355730	92508	K1	0,0002	0,0021	0,034
355732	92290	K1	0,0000	0,0016	0,033

C94 Product analysis Carbon equivalent / Alloying restrictions					
B07.2 Heat	B07.1 Test No.	C01	FO-02=	FO-51=	FO-55=
351665	60825	K1	0,39	0,37	0,13
354638	54388	K1	0,39	0,37	0,10
354638	93547	K1	0,39	0,37	0,12
354638	93854	K1	0,40	0,37	0,14
355134	93530	K1	0,37	0,37	0,08
355137	93529	K1	0,38	0,37	0,13
355137	93546	K1	0,39	0,37	0,13
355728	93060	K1	0,39	0,37	0,16
355728	93269	K1	0,40	0,37	0,16
355728	93391	K1	0,39	0,37	0,16
355728	93534	K1	0,39	0,37	0,16
355730	92483	K1	0,38	0,37	0,12
355730	92486	K1	0,38	0,37	0,12
355730	92508	K1	0,38	0,37	0,15
355732	92290	K1	0,38	0,37	0,12

A04	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 18.02.11	PP 1
 Manufacturer's mark		B. BALDAUF Test House Manager		
QM-System: Certification as per ISO 9001				



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/certificate)

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		A10 Advice of dispatch No./ Date of dispatch 380370-18.02.11	A08/ Manufacturer's order/ A03 Certificate No. 362037-002	Sheet 9
MATERIAL TEST REPORT (MTR)				
A06 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMONTON	A07.1 No. ED10557-J1010-ER	801 Product HOT ROLLED PLATES	
Final receiver EDMONTON STEEL, EDMONTON		A07.2 No.		
B02 Steel design. SA516-70		SA20-S5		
B03 Any suppl. requirements DIL-HUE-2:R31-2010-11-22				

C94 Carbon equivalent formula / Alloying restrictions

FO-02 = $C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15$
FO-51 = V + NB
FO-55 = CU+MO+NI+CR
FO-78 = CR+MO
FO-91 = MN/C

D01 Marking and identification, surface appearance, shape and dimensional properties

ITEM NO.: 01-10
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS
SURFACE AS PER ASME-SA20
THICKNESS AS PER ASME-SA20
LENGTH AND WIDTH AS PER ASME-SA20
FLATNESS AS PER 1/2-ASME-SA20



A04	2012/02/23 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
	B. BALDAUF Test House Manager	Inspector's stamp AHB	Date 18.02.11 PP



PRESSURE TEST RECORD

Date:

Oct 27/2011

Vessel Serial Number:

12340

Vessel Design Pressure:

1480 Psi.

Hydro Test Pressure:

2220 Psi.

Temperature:

+16

Test Gauge No.:

#45/33

Hydro By:

W-S

Q.C. Signature:

W-S

Print Clearly

Original to be returned to Q.C. on completion of hydro.

#12259

W
RT - 2

Certified By

RJV

**GAS FIELD
SERVICES**

Vegreville, Alberta
Phone (780)632-7774

A#612508

UNIT NAME

Vertical 3 Phase Separator

M.A.W.P. Internal

AT

DESIGN TEMP.

M.A.W.P. External

10205 Kpa.

@

38 °C

Kpa.

1480 Psi.

@

100 °F

p.s.i.

MINIMUM DESIGN METAL TEMPERATURE

YEAR BUILT

-29 °C

@

10205 Kpa.

Oct. 2011

-20 °F

@

1480 p.s.i.

C.R. NUMBER

SERIAL NO.

P7217.231

12340

CORR. ALLOW.

HEAT TREATMENT

HYDRO TEST

1.6 mm

Nil

15307 Kpa.

SHELL THICK.

HEAD THICK.

2220 p.s.i.

21.44 mm

Top - **20.63** mm

Bottom - **20.63** mm

WEIGHT

SHELL MAT'L

HEAD MAT'L

685 Kg.

SA-106-B

Top- **SA-516-70**

Bottom- **SA-516-70**

SIZE

406 X 2285

A# 019208


ACUREN

CLIENT

ATTENTION

ADDRESS

PROJECT

WORK LOCATION

RADIOGRAPHIC TESTING REPORT

R-204015

PAGE

1

OF

DATE

Oct 26/11

ACUREN JOB #

231-56647-84

PO/WO #

Serial # 12340

PROCEDURE #

RT-0016

ACCEPTANCE

ASME SEC VIII

STANDARD

Div I uWSZ 2010

MATERIAL TYPE

81

FILM BRAND

Agfa

RADIATION SOURCE

IR 192 Co 60 X-RAY

FOCAL SPOT

46 (C) MM (IN)

Legend 1. Accept 2. Moderate 3. Reject * Weider Symbol

	IDENTIFICATION	PIPE DIA.	PIPE SCH	FILM TYPE	REIN.	TECH #	SOD (D)	OFD (t)	# OF EXP	C R K	L P	I P	S	U C R P	*	DEFECT LOCATION & REMARKS	ACC	REJ
1	SPI 0-6	16"	80	DS	.125"	2	0"	.84"	1							m,x		✓
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		

SIGNATURES

REFER TO OPPOSITE SIDE FOR SCOPE OF SERVICES AND STANDARD OF CARE

CLIENT REPRESENTATIVE

PRINT

SIGNATURE

FILM USED

FILM SIZE

DTR #

TECHNICIAN (SIGN)

PRINT NAME:

*Please note: Film that is not accepted by the client when the report is issued will be disposed of by Acuren unless otherwise notified and acknowledged in writing.

CGSB LEVEL

SNT LEVEL

II

CGSB LEVEL

SNT LEVEL

II

CGSB REGISTRATION #

3161

II

CGSB REGISTRATION #

SNT LEVEL

II

White - Client Copy

Canary - Office Copy

Pink - Technician Copy

Golden Rod - Office Copy

A357936

PCS 4 1/2 x 8 1/2

PCS

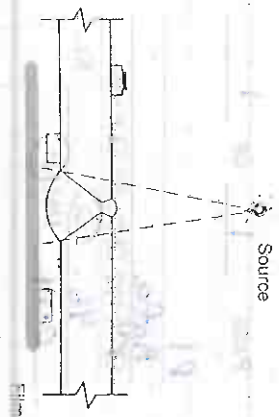
PCS

PCS

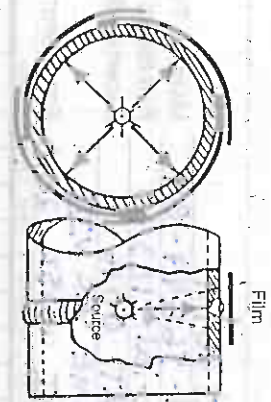
PCS

PCS

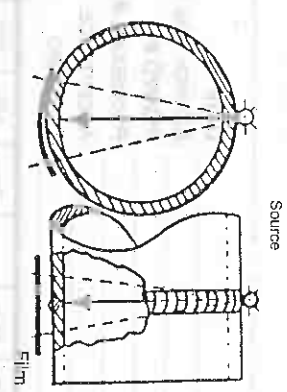
PCS



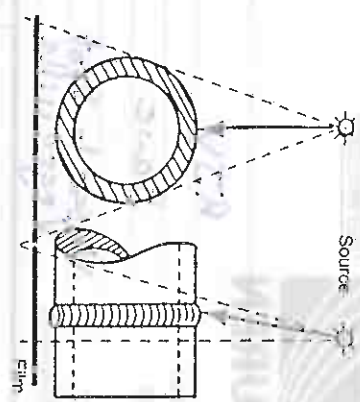
Technique "1"
SWE-SWV



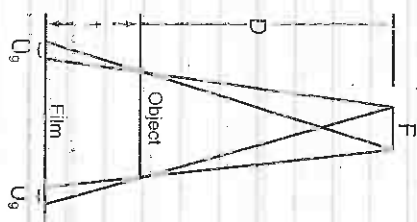
Technique "2"
SWE-SWV



Technique "3"
DWE-SWV



Technique "4"
DWE-DWV



Technique "5"
DWE-DWV

- U_g = Geometric Unsharpness
- D = source to object distance
- t = object to film distance
- F = Focal Spot Size

$$U_g = \frac{F}{D}$$

Note: if it is omitted from this report, the Pipe Schedule shall apply as it.

DISCLAIMERS

SCOPE OF SERVICE

The agreement of Acuren to perform the Services extends only to those Services provided for in writing. Under no circumstances shall such Services extend beyond the performance of the requested Services provided for in writing and the preparation of reports or similar documents reflecting the data obtained or the opinion formulated on the basis of such Services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinion or observations of the examiner/engineer who are not intended, nor can they be construed, as representations or warranties as to the actual circumstances. Acuren does not assume any responsibility of the owner/operator and the owner/operator retains complete responsibility for the engineering, repair and use decisions as a result of the data or other information provided by Acuren. In no event shall Acuren's liability in respect of the Services referred to herein exceed the amount paid for such Services.

STANDARD OF CARE

In performing the Services provided, Acuren uses the degree of care and skill ordinarily exercised under similar circumstances by others performing such Services in the same or similar locality. If at any time during the performance of the Services or within one (1) year thereafter, Purchaser discovers that the Services do not conform to the warranty, Acuren shall, upon receipt of written notice from Purchaser, promptly provide technicians/engineers to reperform the Services to the extent necessary to conform to the warranty and Acuren shall have no other liability whatsoever. No other warranty, expressed or implied, is made or intended by Acuren.

LIMITATIONS OF LIABILITY

Nothing in this Agreement shall be construed to mean that Acuren assumes any liability on account of injury to persons or property, including death, except those directly caused by negligent acts of Acuren or its employees and that Purchaser's own responsibility for injury to persons or properties while on or about Purchaser's property or equipment is in no way affected by this Agreement. Acuren shall not be held responsible or liable for any loss, damage, detention or delay caused by accidents, strikes, labour shortages, lock-outs, fire, flood, severe weather conditions, acts of civil or military authorities, or by insurrection or riot, or by any other cause that is unavoidable or beyond Acuren's control or in any event for consequential damages including, without limitation, downtime, loss of use or loss of profits.

ALBERTA MUNICIPAL AFFAIRS

ABSA, the pressure equipment safety authority

9410 - 20th Avenue

Edmonton, AB T6N 0A4

Partial/ Partiel ☐

④612508

MANUFACTURER'S DATA REPORT

FOR PRESSURE VESSEL

DÉCLARATION DE CONFORMITÉ DU CONSTRUCTEUR

D'APPAREILS SOUS PRESSION

Upon shipment of a pressure vessel, this form fully and correctly filled in must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under the Act, governing the construction and installation of pressure vessels.

Au moment de l'expédition d'un appareil sous pression, ce formulaire complété correctement, doit être envoyé au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

Manufactured by Construit par	Name and address of Manufacturer/ Nom et adresse du constructeur RJV Gasfield Services 4901 Bruce Road, Vegreville, Alberta T9C 1C3
Manufactured for Construit pour	Name and address of Purchaser or Consignee/ Nom et adresse du client ou de son représentant RJV Gasfield Services 4901 Bruce Road, Vegreville, Alberta T9C 1C3
Ultimate owner Utilisateur	Name and address/ Nom et adresse Stock
Location of installation Lieu d'installation	Address/ Adresse Stock

Pressure vessel/ Appareil

Type/ Genre Vertical 3 Phase Separator	Overall Length/ Longueur totale 2285mm sm/sm	Serial No./ N° de série 12340	Year built/ Année de fabrication 2011
Provincial Registration No. - C.R.N./N° d'enregistrement provincial - N.E.C. P7217.231	National Board No./ N° National Board N/A	Drawing No./ N° de dessin V01-381-R1	

The chemical and physical properties of all parts meet the requirements of material specifications of the A.S.M.E. Code.
Les propriétés chimiques et physiques de toutes les composantes respectent les exigences des spécifications de matériaux de code ASME.

The design, construction and workmanship conform to CSA B51. La conception, la construction et la façon sont conformes à ACNOR B51.	ASME Section VIII	Division 1	Addenda/Supplément 2010	Code case No. N° de cas N/A
Manufacturer's partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report: Les rapports partiels du constructeur adéquatement identifiés et signés par les inspecteurs autorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport:				
Names of parts/ Nom de la composante	Item No./ N° d'item	Manufacturer's Name/ Nom du constructeur	Identifying Stamp/ Estampe d'identification	

Shell/ Virole

Description	Material Matériau	Thickness Épaisseur	Corr. Allow. Surépais. de corr.	Diameter Diamètre	Longitudinal Joints Joints longitudinaux			P.W.H.T. Traitement therm		Girth Joints Joints de circonférence		Number of courses Nombre de sections
					Type	R.T. Radiog.	Efficiency Efficacité	Temp.	Time Durée	Type	R.T. Radiog.	
Shell	SA-106-B	21.44 mm	1.6mm	406mm	Sml's	N/A	N/A	N/A	N/A	1	Spot	1
											70%	

Heads/ Têtes

Description	Material Matériau	Min. Thickn. Épais min.	Corr. Allow Surép. Corr.	Crown. Radius Rayon couron.	Knuckle Radius Petit rayon	Ellipse Ratio Rapp. ellipse	Conical Apex Angle Angle conique	Hemisph. Radius Ray. Hémisph	Flat Diameter Diam. plat	Side to pressure Côte sous pression
Top	SA-516-70	20.63mm	1.6mm	-----	-----	2.1	-----	-----	-----	Concave
Bottom	SA-516-70	20.63mm	1.6mm	-----	-----	2.1	-----	-----	-----	Concave
Removable bolts used (describe other fastenings) Boulons amovibles utilisés (décrire tout autre attache)					Mat'l Spec./ Spéc. du mat.			Grade		Size/ Dimension

Pressure - Temperature/ Pression - température

Pressure Vessel Part Partie de l'appareil	Constructed for max. allowable working pressure Construit pour une pression maximale de marche permise	At max. temp. A une temp. max.	Min. Temp. (when less than -29°C) Temp. min. (inférieure à -29°C)	Test pressure (hydro-pneumatic or combination) Pression d'épreuve (hydro-pneumatique ou combinaison)
Vessel	10,205 Kpa.	38°C	-29°C	15,307 Kpa.

Tube Section/ Faisceau tubulaire

Tube sheet/ Plaque tubulaire	Material/ Matériau	Diameter/ Diamètre	Nominal Thickness Épaisseur nominale	Corr. Allow. Surépais. corrosion	Attachment Mode d'attachement
Tube material/ Matériau des tubes	Diameter/ Diamètre	Nominal Thickness (gauge) Épaisseur nominale (calibre)	Number/ Nbre	Type (Straight or U) Type (Droit ou U)	Heating Surface Surface de chauffe

Jacket/ Chemise

Type of jacket/ Genre de chemise	Jacket closure Fermeture de chemise	Proof Test Pression d'épreuve	Heating Surface Surface de chauffe	Sketch/ Schéma
----------------------------------	--	----------------------------------	---------------------------------------	----------------

Safety Valve Outlets/ Soupapes de sûreté

Number/ Nombre 1	Dimension 33.4mm	Location/ Endroit Shell
---------------------	---------------------	----------------------------

Nozzles and Openings/ Tubulures et ouvertures

Purpose/ But	Number Nombre	Dimension	Type	Material Matériau	Nominal Thickness Épaisseur nominale	Reinforcement matériau Matériau de renfort	How attached Genre d'attaches	Location/ Endroit
Inlet/Outlet	2	60.3mm	CL600RFWN	SA-105/SA-106-B	8.74mm	N/A	UW16.1{c}	Top Head/Shell
L.L.C./H.L.S.D./L.L.S.D.	5	60.3mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell/Bottom Head
P.S.V.	1	33.4mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell
Sight Glass/Temp. Ind.	5	26.7mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell
Pressure Indicator	1	21.4mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell
Liquid out	2	60.3mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell

Supports/ Supports

Skirt/ Jupe Yes/ Oui No/ Non ☒ ☐	Lugs/ Orelles No./ Nbre No	Legs/ Pieds No./ Nbre No	Other/ Autres (Description) N/A	Attached/ Attaches (Where and How/ Méthode et endroit) Welded to bottom head
---	----------------------------------	--------------------------------	------------------------------------	--

Remarks/ Observations (Cubical capacity/ Volume)

Volume=.262 Cubic Meters Exempt from impact test requirements as per UG20(f) 1 to 5 Hydrostatically tested in the vertical position Nozzle to shell weld full penetration
--

Certificate of Compliance/ Certificat de conformité

We certify that the statements made in this data report are correct and that the said vessel has been constructed in accordance with the Provincial Registered design below and the requirements of standard CSA B51.

Nous certifions que les données de la déclaration de conformité sont correctes et que l'appareil a été construit en accord avec l'enregistrement provincial ci-dessous et les exigences de la norme ACNOR B51.

Provincial Registered Design
Enregistrement provincial P7217.231

Manufacturer
Constructeur RJX Gasfield Services

Signature [Signature] Date OCT 27 2011

Certificate of Shop Inspection/ Certificat d'inspection en usine

I, the undersigned, a duly authorized boiler and pressure vessel inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by (employé par) ABSA
of (de) Alberta
have inspected the above vessel and state that to the best of my knowledge and belief the manufacturer has constructed the vessel in accordance with Canadian Registration No. P7217.231 and the requirements of CSA Standard B51. By signing this certificate, neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the vessel described in this manufacturer's data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
ai inspecté l'appareil précité et, autant que je sache, le constructeur a construit l'appareil en accord avec le numéro d'enregistrement canadien P7217.231 et les exigences de la norme CSA B51. En signant ce certificat, ni l'inspecteur ni son employeur ne donnent de garantie explicite ou implicite relativement à l'appareil décrit dans la présente déclaration. De plus, ni l'inspecteur ni son employeur ne doivent être tenus responsables de quelque manière que ce soit des dommages, matériels ou corporels, ou des pertes de quelque nature que ce soit pouvant résulter de cette inspection.

Inspector's Name
Nom de l'inspecteur Jason Reinhart AB 248 NB 12899 A

Signature [Signature] Date OCT 27 2011

Certificate of Compliance - Field Work/ Certificat de conformité - Installation au chantier

We certify that the field installation of all parts of the vessel conforms with the requirements of Provincial Regulations.

Nous certifions que l'installation au chantier de toutes les composantes de l'appareil est conforme aux règlements provinciaux.

Installer's Name
Nom de l'installateur _____

Signature _____

Date _____

Certificate of Field Inspection/ Certificat d'inspection - Installation au chantier

I, the undersigned, a duly authorized boiler and pressure vessel inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by (employé par) ABSA
have inspected the items not covered by the Certificate of Shop Inspection and the installation of the items and state that to the best of my knowledge and belief the construction and assembly of the items are in accordance with the provincial regulations. By signing this certificate, neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the vessel described in this manufacturer's data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
ai inspecté les composantes non couvertes par le certificat d'inspection en usine et l'installation de l'appareil et, autant que je sache, la construction et l'assemblage de l'appareil sont en accord avec les règlements provinciaux. En signant ce certificat, ni l'inspecteur ni son employeur ne donnent de garantie explicite ou implicite relativement à l'appareil décrit dans la présente déclaration. De plus, ni l'inspecteur ni son employeur ne doivent être tenus responsables de quelque manière que ce soit des dommages, matériels ou corporels, ou des pertes de quelque nature que ce soit pouvant résulter de cette inspection.

Inspector's Name
Nom de l'inspecteur _____
Signature _____ Date _____