

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

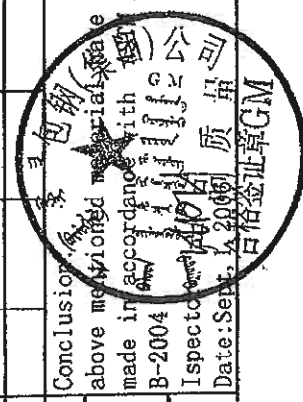
Hold Points established - Sign & Date

[Signature] 00725/11
(Authorized Inspector)

Vessel Serial # 12335		DWG # V01-381-R1		(A) # 612541	
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> NOV 10 2011
CALCULATIONS ON FILE		X	Oct 17, 2011	<i>[Signature]</i>	<i>[Signature]</i> NOV 10 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> NOV 10 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> NOV 10 2011
FIT	NOZZLES & FITTINGS		Oct 19, 2011	<i>[Signature]</i>	
UP	SHELL & HEAD		OCT 25 2011	<i>[Signature]</i>	
INTERNALS (tray, baffles, etc)			Oct 20, 2011	<i>[Signature]</i>	
INTERNAL INSPECTION		H	Oct 25, 2011	<i>[Signature]</i>	<i>[Signature]</i> OCT 25/11
MATERIAL INSPECTION REPORT		X	Oct 25, 2011	<i>[Signature]</i>	<i>[Signature]</i> NOV 10 2011
WELD SIZES		X	NOV 03 2011	<i>[Signature]</i>	<i>[Signature]</i> NOV 10 2011
WELDERS I.D.			NOV 03 2011	<i>[Signature]</i>	<i>[Signature]</i>
EXTERNAL AFTER COMPLETION OF ALL WELDING		X	NOV 03 2011	<i>[Signature]</i>	<i>[Signature]</i> NOV 10 2011
INTERNAL ON TYPE 1 JOINTS			NOV 03 2011	<i>[Signature]</i>	<i>[Signature]</i>
RADIOGRAPHS		X	NOV 04 2011	<i>[Signature]</i>	<i>[Signature]</i> NOV 10 2011
OTHER N.D.E.					
IMPACT TESTS					
POST WELD HEAT TREATMENT	YES: NO: <i>[Signature]</i>				
EXTERNAL BEFORE PWHT					
PWHT CHART CHECKED					
NAMEPLATE		X	NOV 10 2011	<i>[Signature]</i>	<i>[Signature]</i> NOV 10 2011
HYDROSTATIC TEST		H	NOV 10 2011	<i>[Signature]</i>	<i>[Signature]</i> NOV 10 2011
DATA REPORT		X	NOV 10 2011	<i>[Signature]</i>	<i>[Signature]</i> NOV 10 2011
NONCONFORMANCES					

		SPECIFICATIONS		HEAT NUMBER	VERIFIED THICKNESS
SHELL	C1	SA-106-B	<i>[Signature]</i> 6104585	<i>[Signature]</i>	21.44mm
	1	SA-516-70	<i>[Signature]</i> 720482N-CA723361	<i>[Signature]</i>	20.63mm.
	2	SA-516-70	<i>[Signature]</i> 7204628N-CA724877	<i>[Signature]</i>	20.63mm.
HEADS	3				
	1				
	2				
REPADS	3				
	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.		TOTAL QUANTITY: 482.722MT															
PURCHASER: Eldon Development Ltd.(LAI WU GROUP) 42/F., Office Tower, Convention Plaza, 1 Harbour Road, Wanchai, Hong Kong		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		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					
Specification		Chemical Compositions(%)										Mechanical Properties					
Heat No.	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												
Technical Testing																	
Dimension Check	Surface Quality	Hydrostatic Test	Flattening Test	Bending Test	Rolling process	Eddy Current Test	Conclusion: above mentioned materials have been made in accordance with B-2004										
OK	OK	5.8(Mpa)	OK	OK	Hot rolling	OK	Inspected by: 2006.11.22 Date: Sept. 14, 2006										



NOV 22 2006

02



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 1 of 2

Item#	Description	Qty	Heat#	Brinell Hardn.	Required Min Thk	Recorded Min Thk	Form. Proc.
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	351658-35146	MTR	0.8125"	0.8150"	1
		1	7204628N-CA724877	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 Weg
Conforms to
ASME Section II

2010 Edition

OCT 14 2011 Date

1

11. The following table shows the results of a survey of 100 people. The first column shows the age group, the second column shows the number of people in each age group, and the third column shows the number of people in each age group who are over 40 years old.

Age Group	Number of People	Number of People Over 40
18-24	20	0
25-34	30	0
35-44	20	0
45-54	10	10
55-64	10	10
65-74	10	10



edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

5545-89 Street Edmonton, Alberta Canada T6E 5W9

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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



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	No.	No.
DH		ARCELOR CANADA, BURLI	A07.1	61056
		EDMONTON STEEL, EDMON	A07.2	E10408-JL010-IG

requirements DIL-HUE-2:R21-2006-04-27

242156-20.01.07

315779-002

1

B01 Product

HOT ROLLED PLATES



13043

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	0,8750	120,50000	X	480,00000	N	290115	15577-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15578-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15580-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15585-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15586-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15588-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15589-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15532-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15555-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15558-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15559-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15561-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15562-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15563-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15565-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15566-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15568-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15569-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15571-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15572-01	ITEM 1
01	1	0,8750	X	120,50000	X	480,00000	6510	15574-01	ITEM 1
**	21				136710				
02	1	1,1250	X	97,00000	X	480,00000	6738	15480-01	ITEM 2

Z01/2021Z03 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

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

B. MUELLER

Test House Manager

Inspector's stamp Date 22 03 07

Date 22 07 07

7



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 DH	A08 Purchaser ARCELOR CANADA, BURLI	A07.1 No. 61056	B01 Product HOT ROLLED PLATES	
B02/ Steel design. SA516-70	Final receiver EDMONTON STEEL, EDMON	A07.2 No. E10408-J1010-LG		
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	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		290119	15481-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000 x	6738 N		290119	15482-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000 x	6738 N		290119	15483-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000 x	6738 N		290119	15484-01	ITEM 2
**	5				33690				
***	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 MTLTV SA516 60 MTLTV

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

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B05 Rol.plate/ Test No.	Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C10 C11 KSI RP02	C12 C13 RM	A % L0=8IN	C14-C15 A % L0=2IN
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 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
markAG 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 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 242156-20.01.07	A08/ Manufacturer's order/ A03 Certificate No. 315779-002 B01 Product HOT ROLLED PLATES	Sheet 3/...
A05 Established inspecting body DH		ARCELOR CANADA, BURLI A07.1 No. 61056 EDMONTON STEEL, EDMON A07.2 No. E10408-J1010-IG		
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-2A: 04+A05 requirements 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 KSI RP02	C12 RM	C13	A % L0=8IN	A % L0=2IN	C14-C15
01	290115	15585	KL Q	Q	RT	48,7	72,5		29,9		
01	290115	15586	KL Q	Q	RT	49,9	72,9		31,4		
01	290115	15588	KL Q	Q	RT	49,4	72,9		30,4		
01	290115	15589	KL Q	Q	RT	50,0	72,8		30,4		
01	290117	15532	KL Q	Q	RT	50,0	73,7		30,9		
01	290117	15555	KL Q	Q	RT	49,6	74,1		29,4		
01	290117	15558	KL Q	Q	RT	49,2	72,8		31,9		
01	290117	15559	KL Q	Q	RT	50,2	73,1		30,9		
01	290117	15561	KL Q	Q	RT	49,7	74,0		28,0		
01	290117	15563	KL Q	Q	RT	49,6	73,1		38,3		
01	290117	15563	KL Q	Q	RT	49,2	73,8		27,5		
01	290117	15565	KL Q	Q	RT	50,9	74,0		31,9		
01	290117	15566	KL Q	Q	RT	48,6	73,2		29,4		
01	290117	15568	KL Q	Q	RT	48,7	72,5		31,4		
01	290117	15569	KL Q	Q	RT	50,2	72,6		29,9		
01	290117	15571	KL Q	Q	RT	49,7	72,8		28,9		
01	290117	15572	KL Q	Q	RT	50,6	73,4		28,4		
01	290117	15574	KL Q	Q	RT	49,4	73,2		30,9		
02	290119	15480	KL Q	Q	RT	49,6	72,9		31,9		
02	290119	15481	KL Q	Q	RT	49,6	73,4		31,9		
02	290119	15482	KL Q	Q	RT	50,6	73,5		29,9		
02	290119	15483	KL Q	Q	RT	49,9	73,8		29,9		
02	290119	15484	KL QV	Q	RT	50,3	74,8		33,9		

A04	Q102/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 22.01.07	KW 1
QM-System: Certification as per ISO 9001				
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	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. requirements ASME-2A:04+A05				
DIL-HUE-2:R21-2006-04-27				
ARCELOR CANADA, BURLI		A07.1 No. 61056		
EDMONTON STEEL, EDMON		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. GR.F	C33 Testing method	C35 Individual values	C32 Average value
01	290115	15577		K1	O	RT	HBW 10/3000	HB 142	142
01	290115	15578		K1	O	RT	HBW 10/3000	HB 143	145
01	290115	15580		K1	O	RT	HBW 10/3000	HB 141	140
01	290115	15585		K1	O	RT	HBW 10/3000	HB 143	141
01	290115	15586		K1	O	RT	HBW 10/3000	HB 142	142
01	290115	15588		K1	O	RT	HBW 10/3000	HB 146	144
01	290115	15589		K1	O	RT	HBW 10/3000	HB 144	143
01	290117	15532		K1	O	RT	HBW 10/3000	HB 142	142
01	290117	15555		K1	O	RT	HBW 10/3000	HB 143	142
01	290117	15558		K1	O	RT	HBW 10/3000	HB 145	143
01	290117	15559		K1	O	RT	HBW 10/3000	HB 143	142
01	290117	15561		K1	O	RT	HBW 10/3000	HB 142	141
01	290117	15562		K1	O	RT	HBW 10/3000	HB 145	144
01	290117	15563		K1	O	RT	HBW 10/3000	HB 142	142
01	290117	15565		K1	O	RT	HBW 10/3000	HB 145	144
01	290117	15566		K1	O	RT	HBW 10/3000	HB 144	143
01	290117	15568		K1	O	RT	HBW 10/3000	HB 142	141
01	290117	15569		K1	O	RT	HBW 10/3000	HB 149	147
01	290117	15571		K1	O	RT	HBW 10/3000	HB 149	147
01	290117	15572		K1	O	RT	HBW 10/3000	HB 140	140
01	290117	15574		K1	O	RT	HBW 10/3000	HB 144	144
02	290119	15480		K1	O	RT	HBW 10/3000	HB 147	146
02	290119	15481		K1	O	RT	HBW 10/3000	HB 143	143
02	290119	15482		K1	O	RT	HBW 10/3000	HB 142	143

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
	Manufacturer's mark	B. MUELLER Test House Manager	Inspector's stamp	Date 22.01.07
QM-System: Certification as per ISO 9001		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	5/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser ARCELOR CANADA, BURLI	A07.1 No. 61056	B01 Product HOT ROLLED PLATES	
Final receiver EDMONTON STEEL, EDMON		A07.2 No. E10408-J1010-LG		
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-2A: 04+A05				
requirements DIL-HUE-2: R21-2006-04-27				

C30-C39 Hardness test

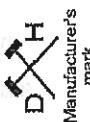
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C35 Individual values	C32 Average value
02	290119	15483		K1 O	O	RT HBW 10/3000	HB 146	145	145
02	290119	15484		K1 O	O	RT HBW 10/3000	HB 145	142	142

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. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 C42 Individual values AV=FT.LBF	C43 Average value
01	290115	15577		K1 LV	LV	-51		CHP-V	CHP-V	AV 142	156	90
01	290115	15578		K1 LV	LV	-51		CHP-V	CHP-V	AV 204	134	146
01	290115	15580		K1 LV	LV	-51		CHP-V	CHP-V	AV 138	123	205
01	290115	15585		K1 LV	LV	-51		CHP-V	CHP-V	AV 231	119	156
01	290115	15586		K1 LV	LV	-51		CHP-V	CHP-V	AV 196	191	167
01	290115	15588		K1 LV	LV	-51		CHP-V	CHP-V	AV 142	195	159
01	290115	15589		K1 LV	LV	-51		CHP-V	CHP-V	AV 157	170	163
01	290117	15532		K1 LV	LV	-51		CHP-V	CHP-V	AV 161	150	196
01	290117	15555		K1 LV	LV	-51		CHP-V	CHP-V	AV 104	115	129
01	290117	15558		K1 LV	LV	-51		CHP-V	CHP-V	AV 122	152	162
01	290117	15559		K1 LV	LV	-51		CHP-V	CHP-V	AV 121	111	144
01	290117	15561		K1 LV	LV	-51		CHP-V	CHP-V	AV 124	129	132
01	290117	15562		K1 LV	LV	-51		CHP-V	CHP-V	AV 104	89	114
01	290117	15563		K1 LV	LV	-51		CHP-V	CHP-V	AV 137	122	127
01	290117	15565		K1 LV	LV	-51		CHP-V	CHP-V	AV 75	189	141
01	290117	15566		K1 LV	LV	-51		CHP-V	CHP-V	AV 134	199	84
01	290117	15568		K1 LV	LV	-51		CHP-V	CHP-V	AV 128	114	125
01	290117	15569		K1 LV	LV	-51		CHP-V	CHP-V	AV 176	189	128
01	290117	15571		K1 LV	LV	-51		CHP-V	CHP-V	AV 147	132	93
A04	290117	15571		K1 LV	LV	-51		CHP-V	CHP-V	AV 147	132	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



AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		Inspector's stamp Date 22.01.07		KW 1
B. MOELLER Test House Manager		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 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+AL:1995 + AS PER ISO 10474:1991		A10 Advice of dispatch No./ Date of dispatch 242156-20.01.07	A08/ Manufacturer's order/ A03 Certificate No. 315779-002	Sheet 7/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser ARCELOR CANADA, BURLI	A07.1 No. 61056	B01 Product HOT ROLLED PLATES	
B02 Steel design, SA516-70	Final receiver EDMONTON STEEL, EDMON	A07.2 No. E10408-J1010-LG		
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

Heat	Test No.	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
B07.2	B07.1	C01													
290115	15578	K1	0,170	0,345	1,14	0,009	0,0009	0,0051	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	0,041	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	0,021	0,019	0,032	0,031	0,000	0,000	0,000
B07.2	B07.1	C01													
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

Heat	Test No.	FO-02	FO-55	FO-78	FO-91
B07.2	B07.1	C01			
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

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

B. MUELLER
Test House Manager

A01



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 242156-20.01.07	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	A08 Purchaser Final receiver	ARCELOR CANADA, BURLI	A07.1 No. 61056	B01 Product HOT ROLLED PLATES
		EDMONTON STEEL, EDMON	A07.2 No. E10408-J1010-LG	
B02/ Steel design. SA516-70				
B03 Any suppl. requirements	ASME-2A:04+A05			
	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	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	
QM-System: Certification as per ISO 9001					
B. MUELLER Test House Manager		AHB	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		264364-11.07.07	321444-001	1/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser Final receiver	B01 Product HOT ROLLED PLATES		
	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.	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	0,7500 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
**	15				83700				
02	1	0,8750 x	96,50000 x	480,00000 x	5214	N	297060	20452-01	ITEM 2
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



B. Mueller
B. MUELLER
Test House Manager



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

Inspector's stamp
Date 12.07.07
RECEIVED JUL 16 2007
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	2/...
	MATERIAL TEST REPORT (MTR)						

A05 Established inspecting body	A06 Purchaser	ARCELOR CANADA, BURLI	A07.1 No.	70072
DH	Final receiver	EDMONTON STEEL, EDMON	A07.2 No.	E10435-J1010-IG

B02/ Steel design.	SA516-70
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	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	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

AHB

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



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	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-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
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 MLTY SA516 60 MLTY
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	A01
QM-System: Certification as per ISO 9001			ADB	
Manufacturer's mark		B. MUELLER Test House Manager	Inspector's stamp	KW 1
		Date	12.07.07	



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	4/...
MATERIAL TEST REPORT (MTR)			B01 Product	

A05 Established inspecting body	A06 Purchaser	ARCELOR CANADA, BURLI	A07.1 No. 70072
DH	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 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C03 C01	C10 Temp. GR.F	C11 KSI RP02	C12 RM	C13	A % LO=6IN	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/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 departmentB. MUELLER
Test House Manager

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	5/....
MATERIAL TEST REPORT (MTR)			B01 Product	
A05 Established inspecting body	A06 Purchaser	HOT ROLLED PLATES		
DH	Final receiver			
B02/ Steel design.	SA516-70			
B03 - Any suppl. requirements	ASME-2A:04+A05 DIL-HUS-2:R21-2006-04-27			
ARCELOR CANADA, BURLI		A07.1 No. 70072		
EDMONTON STEEL, EDMON		A07.2 No. E10435-J1010-IG		

C30-C39 Hardness test

B14 Item.	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 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	147
01	297056	20558		K1	O	RT	HBW 10/3000	HB 146	148
01	297056	20560		K1	O	RT	HBW 10/3000	HB 147	148
01	297067	30527		K1	O	RT	HBW 10/3000	HB 150	148
01	297067	30528		K1	O	RT	HBW 10/3000	HB 145	145
02	297060	20452		K1	O	RT	HBW 10/3000	HB 148	148
02	297060	20618		K1	O	RT	HBW 10/3000	HB 148	148
02	297060	20619		K1	O	RT	HBW 10/3000	HB 151	151
02	297060	92858		K1	O	RT	HBW 10/3000	HB 142	144
03	297059	20544		K1	O	RT	HBW 10/3000	HB 151	149
03	297059	20550		K1	O	RT	HBW 10/3000	HB 147	147
03	297059	20551		K1	O	RT	HBW 10/3000	HB 149	149
03	297059	20552		K1	O	RT	HBW 10/3000	HB 148	147
03	297059	20553		K1	O	RT	HBW 10/3000	HB 148	148
03	297059	20554		K1	O	RT	HBW 10/3000	HB 148	147
03	297059	20555		K1	O	RT	HBW 10/3000	HB 150	148
03	297059	20556		K1	O	RT	HBW 10/3000	HB 148	148
03	297060	20453		K1	O	RT	HBW 10/3000	HB 149	148
03	297060	20526		K1	O	RT	HBW 10/3000	HB 148	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	Inspector's stamp	Date	KW
	QM-System: Certification as per ISO 9001			12.07.07	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)	264364-11.07.07	321444-001	6/...

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body DH		A06 Purchaser		A07.1 No. 70072		B01 Product HOT ROLLED PLATES
		Final receiver		ARCELOR CANADA, BURKL EDMONTON STEEL, EDMON EDMONTON STEEL, EDMON		

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 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	C42 Individual values AV-F1, LBF	C43 Mean value
01	292660	89773		K1	LV	-51		CHP-V			202	139
01	297056	20557		K1	LV	-51		CHP-V			114	107
01	297056	20558		K1	LV	-51		CHP-V			179	137
01	297056	20560		K1	LV	-51		CHP-V			122	118
01	297067	30527		K1	LV	-51		CHP-V			98	114
01	297067	30528		K1	LV	-51		CHP-V			182	182
02	297060	20452		K1	LV	-51		CHP-V			117	98
02	297060	20618		K1	LV	-51		CHP-V			148	148
02	297060	20619		K1	LV	-51		CHP-V			126	123
02	297680	92858		K1	LV	-51		CHP-V			169	124
03	297059	20544		K1	LV	-51		CHP-V			149	136
03	297059	20550		K1	LV	-51		CHP-V			110	115
03	297059	20551		K1	LV	-51		CHP-V			89	111
03	297059	20552		K1	LV	-51		CHP-V			115	145
03	297059	20553		K1	LV	-51		CHP-V			134	137
03	297059	20554		K1	LV	-51		CHP-V			115	130
03	297059	20555		K1	LV	-51		CHP-V			100	121
03	297059	20556		K1	LV	-51		CHP-V			181	123
03	297060	20453		K1	LV	-51		CHP-V			147	176
03	297060	20526		K1	LV	-51		CHP-V			159	134

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	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		Manufacturer's
	QM-System: Certification as per ISO 9001		
		B. MUELLER	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			

B. MUELLER

ADB



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+AL:1995 + AS PER ISO 10474:1991		264364-11.07.07		321444-001		7/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body		A06 Purchaser		A07.1 No. 70072		
DH		Final receiver		A07.2 No. E10435-J1010-IG		
B02/ Steel design.		ARCELOR CANADA, BURLI		HOT ROLLED PLATES		
B03 Any suppl. requirements		EDMONTON STEEL, EDMON				
DIL-HUE-2:R21-2006-04-27						

C70-C99 Chemical composition % - Heat analysis

	C70	C	SI	MIN	P	S	N	AL	CU	MO	NI	GR	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	0,0088	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

	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	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	A01
	QM-System: Certification as per ISO 9001	Inspection department	
Manufacturers' mark	B. MUELLER Test House Manager	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 264364-11.07.07		A08/ Manufacturer's order/ A03 Certificate No. 321444-001		Sheet 8/...																																																																																																																	
A05 Established inspecting body DH		A06 Purchaser Final receiver ARCELOR CANADA, BURLI EDMONTON STEEL, EDMON		A07.1 No. 70072 A07.2 No. E10435-J1010-LG		B01 Product HOT ROLLED PLATES																																																																																																																	
B02/ Steel design. SA516-70																																																																																																																							
B03 Any suppl. 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><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>NB</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>0,025</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>								B07.2 Heat	B07.1 Test No.	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	0,025	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.	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN																																																																																																								
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297680	92858	K1 0,002	0,0000																																																																																																																				
A04		D/H Manufacturer's mark		3. pin		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar inspection department																																																																																																																	
A01		We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		Inspector's stamp Date 12.07.07		KW 1																																																																																																																	
A04		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/ 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	9
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. requirements	ASME-2A:04+A05 DIL-HUE-2:R21-2006-04-27			
C94 Product analysis Carbon equivalent / Alloying restrictions				
B07.2 Heat	B07.1 Test No.	C01		
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 Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01
QM-System: Certification as per ISO 9001		ADHB	Inspector's stamp	Date 12.07.07
		B. MUELLER Test House Manager		KW 1

No. 1940957

收 貨 單 位 :	ORDER NO.8155-V
CUSTOMER :	

合 同 编 号: 07WYWCY-54

校 本 参 考

TECHNICAL CONDITION: ASTM A516 Gr 70/ASME A516 Gr 70 EDITION 2011 ± 0.003A ADDRESS: WUGANG HENAN, CHINA

邮 编: 462500 电话(Tel): 0375-811264
ZIPCODE: 462500 传真(Fax): 0375-811269

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

质量证明书

证明书号:	07K3439
CERTIFICATE NO.:	
许可证号:	
EXEQUATUR NO.:	
车号:	
TRAIN NO.:	

OR/C07E05



钢号 STEEL GRADE	熔炉号 HEAT NO.	批号 BATCH NO.	尺寸 DIMENSIONS Inches	块数 PCS	重量 WEIGHT LBS	化学成份 0.001% CHEMICAL COMPOSITION																	拉力试验 TENSILE		弯曲试验 BEND TEST		冲击试验 IMPACT		超声波试验 ULTRASONIC TEST	硬 度 HB															
						C	Si	Mn	P	S	Cr	Al	Mo	Ti	Cu	Nb	Ni	V	N	B	Ceq	Re (Ks)	Rm (Ks)	A % (A50)	结果	方 向	角 度	T			方 向														
A516Gr.70SA516G x.70	7204828N	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 (A50)				-50.8	131	摆			ASTM A435 PASS	0												
A516Gr.70SA516G x.70	7205648N	CA727726	0.875*96.500*480.0 00	1	5.214	190	260	1120	10	3	60	26	19	2	80	1	40	5	4.8	0.2	54	76	36.0 (A50)				-50.8	111	摆			ASTM A435 PASS	0												
A516Gr.70SA516G x.70	7206179N	CA729348	0.875*96.500*480.0 00	1	5.214	160	310	1100	9	3	80	24	22	3	50	1	210	4	4.9	0.4	53	75	36.0 (A20 0)				-50.8	128	摆			ASTM A435 PASS	0												
						以 下 空 白																																							
合计: TOTAL:						3	块 PCS	15.642	吨 MT	试样状态: CONDITION OF TEST PIECE:														供货状态: 正火 CONDITION OF SUPPLY: NORMALIZED		LOT:																			
备注: Notes:						1. PRIME QUALITY, NEWLY PRODUCED, HOT ROLLED KILLED STEEL P. V. 0. PLATES TO ASTM A516 GR. 70/ASME A516 GR. 70 (EDITION 2001+2003A). 2. TOLERANCES TO A20, FLATNESS TOLERANCE AS PER 1/2 OF A20. 3. LIQUID STEEL HAS BEEN PROCESSED BY ADDING CA-SI ALLOY FOR SULPHIDE SHAPE CONTROL. 4. ALL MATERIAL WAS TOTALLY VACUUM DEGASSED AND THAT ALL PLATES WERE ULTRASONICALLY INSPECTED ACCORDING TO ASTM A435. 5. INVOLTING ON NOMINAL THEORETICAL WEIGHT OF 1.85 KGS/MS. 6. COLOR CODE: YELLOW/WHITE/YELLOW COLOR SIKRUP CODE. 7. INFORMATION ON STEEL PLATE NORMALISING CYCLE: (1). SOAKING TEMPERATURE: 900°C +/-10°C. (2). SOAKING TIME: 1.5 HOURS/MIN. (3). COOLING MEANS: AIR COOLING. 8. QUALITY CERTIFICATE ISSUED AS PER EN10204/3.1B. S2.4																																							

明 鋼 鐵 廠

Quality certificate according to EN 10204:2004/3.1

PERSON - IN-CHARGE OF QUALITY EXAMINATION: 吴永斌

判定: 核 员: 尚玲

QUALITY CONTROL INSPECTOR: 武发宇

QUALITY CONTROL CHECKER:

注: 1. 本质量证明书无产品质量证明专用章有效。
2. 证书复印件无效; 涂改处必须加盖鉴定员专用章。

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



FROM :

PHONE NO. :

FEB. 12 2008 11:56AM P1

0.12.198 11.11.00 00003790112634

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:	wgieco66@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL:	0086-375-8111899
FAX:	021-64153908	FAX:	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. 15 2007 06:57PM P1

舞阳钢铁有限公司 2007年7月12日

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:	wglecos88@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)

Wirth Steel

FROM :

PHONE NO. :

FEB. 12 2008 11:56AM P1

00063796112634

PAGE 01



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

WUYANG

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:	wgieco66@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL:	0086-375-8111899
FAX:	021-64153908	FAX:	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. 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

TO:	Wirth Steel Shanghai	Address:	Wuyang City, Henan Pro., P. R. China 462500
ATTN:	Mr. Gong Chenghua	E-mail:	wgleco58@vip.163.com
FAX:	021-64153908	TEL:	0086-375-8111899
DATE:	September 14, 2007	FAX:	0086-375-8112634
RE:	Certificate	PAGE:	1+1

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. ED10547-J1010-ER		
DH	Final receiver	EDMONTON STEEL, EDMON		
		A07.2 No. 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			



15459

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				
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	58576-02	
**	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

Z01Z020203 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
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+AL:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body	A08 Purchaser	EDMONTON STEEL, EDMON	A07.1 No. ED10547-J1010-ER	A10 Advice of dispatch No./ Date of dispatch	356925-08.04.10	A08/ Manufacturer's order/ A03 Certificate No.	353891-002	Sheet	2/.....	
DH	Final receiver	EDMONTON STEEL, EDMON	A07.2 No.						B01 Product	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

B06 Marking of the product

ITEM NO.: 01-03, 05-06, 08-09
STEEL DESIGNATION SA516 70 MTLTV SA516 60 MTLTV
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 B07.2 Item No.	B07.1 Heat No.	B05 Rol./plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C10 C11				C12 RM	C13	A % LP=81N	A % 10=21N	C14-C15
				C01	C02	C03	C10	C11				
02	344392	72568		K1 Q	RT	50,3			76,0	26	42	
03	344657	76977		K1 Q	RT	52,3			75,3	30		
05	344650	04162		K1 Q	RT	49,9			73,8	30		
06	343716	58575		K1 Q	RT	51,8			76,0	30		
06	343716	58576		K1 Q	RT	48,1			74,7	30		
09	343972	39374		K1 QV	RT	50,9			77,9	34		
09	344390	72572		K1 QV	RT	48,7			74,5	37		
09	344390	72573		K1 QV	RT	48,1			74,2	42		

C30-C39 Hardness test

B14 B07.2 Item No.	B07.1 Heat No.	B05 Rol./plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C31 Individual values		C32 Mean value
								C35	C31	
02	344392	72568		K1	O	RT HBW 10/3000		HB 148	149	148
03	344657	76977		K1	O	RT HBW 10/3000		HB 137	143	141
05	344650	04162		K1	O	RT HBW 10/3000		HB 144	147	146

2011/02/20/203 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

AHB

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

Inspection department

DR. CH. DILLG

Test House Manager

Inspector's stamp

Date 08.04.10

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/ A09 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)		901 Product		
A05 Established inspecting body		HOT ROLLED PLATES		
DH				
A08 Purchaser				
Final receiver				
EDMONTON STEEL, EDMON		A071 No. ED10547-J1010-ER		
EDMONTON STEEL, EDMON		A072 No.		
SA20-S5				
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. GRF	C33 Testing method	C35 C31 Individual values	C32 Mean value
06	343716	58575		K1	O	RT	HBW 10/3000	HB 145	146
06	343716	58576		K1	O	RT	HBW 10/3000	HB 144	146
09	343972	39374		K1	O	RT	HBW 10/3000	HB 146	146
09	344390	72572		K1	O	RT	HBW 10/3000	HB 142	144
09	344390	72573		K1	O	RT	HBW 10/3000	HB 143	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	C40 Type of test piece	C44 Testing method	C46 Energy	C45 C42 Individual values AV=FTLSF	C43 Mean value
02	344392	72568		K1	LV	-51		CHP-V	CHP-V	AV 99	136	86
03	344657	76977		K1	LV	-51		CHP-V	CHP-V	AV 157	194	188
05	344650	04162		K1	LV	-51		CHP-V	CHP-V	AV 201	126	123
06	343716	58575		K1	LV	-51		CHP-V	CHP-V	AV 198	159	191
06	343716	58576		K1	LV	-51		CHP-V	CHP-V	AV 112	209	117
09	343972	39374		K1	LV	-51		CHP-V	CHP-V	AV 114	108	80
09	344390	72572		K1	LV	-51		CHP-V	CHP-V	AV 97	105	131
09	344390	72573		K1	LV	-51		CHP-V	CHP-V	AV 100	128	114

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	Si	Mn	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
343716	Y	0,193	0,383	1,20	0,012	0,0005	0,0068	0,019	0,005	0,026	0,028	0,001	0,000	0,001	0,002
343972	Y	0,193	0,389	1,19	0,008	0,0005	0,0061	0,024	0,007	0,029	0,035	0,000	0,000	0,001	0,002
344390	Y	0,174	0,386	1,19	0,008	0,0012	0,0065	0,025	0,006	0,037	0,049	0,000	0,000	0,001	0,002
344392	Y	0,176	0,371	1,18	0,009	0,0010	0,0065	0,023	0,016	0,037	0,033	0,000	0,000	0,001	0,002
344650	Y	0,160	0,343	1,17	0,009	0,0012	0,0067	0,022	0,005	0,027	0,036	0,000	0,000	0,000	0,002

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

AGB

DR. CH. DILG
Test House Manager

Inspector's stamp

Date 08.04.10

PP 1



Manufacturer's mark

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		A03/ Manufacturer's order/ 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		4/-	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		A07.1 No. ED10547-J1010-ER	
DH		Final receiver		EDMONTON STEEL, EDMON		A07.2 No.	
				SA20-S5			
B02/ Steel design. SA516-70							
B03 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUB-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

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

C95 Ladle treatment

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

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		DR. CH. DILG Test House Manager	PP 1
			
Date 08.04.10		Date 08.04.10	



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

356925-08.04.10

A08/ Manufacturer's order/
A03 Certificate No.

353891-002

Sheet

6

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10547-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

B01 Product
HOT ROLLED PLATES

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01
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 = $C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15$

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.: 01-03,05-06,08-09

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



Manufacturer's mark

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



DR. CH. DILG
Test House Manager

AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

Inspector's stamp

Date 08.04.10

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		369429-17.09.10	357359-002	1/...
MATERIAL TEST REPORT (MTR)		B01 Product HOT ROLLED PLATES		
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			



15711

B04-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
			INCH						
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	350405	39539-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39539-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39694-02	

201020203 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

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

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
369429-17.09.10A08/ Manufacturer's order/
A03 Certificate No.
357359-002Sheet
2/...

A05 Established inspecting body A08 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10551-J1010-ER

Final receiver EDMONTON STEEL, EDMONT 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 Product
HOT ROLLED PLATES

B01-B99 Description of the product.

B14 Item No.	B08 Number of places	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	350405	39694-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39715-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39774-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39774-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39774-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39799-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39799-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39799-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39959-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39959-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39959-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39965-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39965-02	
**	36				167400				
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15513-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15513-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15513-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15526-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15526-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15526-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15608-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15610-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15610-02	

A04 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

ADB

AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

B. Baldauf

B. BALDAUF

Test House Manager

Inspector's stamp

Date 17.09.10

BM

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		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		3/....	
MATERIAL TEST REPORT (MTR)				B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON			
B02 Steel design.		SA516-70		SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09		DIL-HUB-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				
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	

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. 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		4/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A08 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.		ASME-II-A:07+A09					
requirements		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	0,7500 x	150,00000 x	480,00000 x	6946 N		350403	13308-02	
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N		350403	13308-03	
**	6				41676				
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	11964-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	11964-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	11964-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	11979-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	11979-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	11979-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12013-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12013-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12013-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12280-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12280-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12638-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12638-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350403	12638-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350404	11955-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350404	11955-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350404	11955-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350405	05031-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510 N		350405	05031-02	
**	19				123690				

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

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)				
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		

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	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	

2011/202/203 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

B. Baldauf

B. BALDAUF
Test House Manager

ADB

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		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)				
A05 Established inspecting body		B01 Product		
DH		HOT ROLLED PLATES		
A06 Purchaser		EDMONTON STEEL, EDMON		
A07.1 No.		ED10551-J1010-ER		
Final receiver		EDMONTON STEEL, EDMON		
A07.2 No.				
B02/ 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.	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	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 MTLTV SA516 60 MTLTV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

A04	2012/02/2023 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	Inspector's stamp	Date 17.09.10	BM 1
D/H		B. BALDAUF Test House Manager		A01	
Manufacturer's mark		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		359429-17.09.10	357359-002	7/...
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.	
B02 Steel design. SA516-70		SA20-S5		
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 Heat No. No.	B07.1 Rol./plate/ Test No.	B05 Reference (heat) treatment	C01 Temp. GRF	C02/ C03 Temp. GRF	C10 C11 KSI RPM2	C12 RM	C13 RM	C14-C15 A % LO-BIN
01 348840-11315	B07.1	K1 Q	RT	RT	51,3	77,6	77,6	27
01 350041 63961	B07.2	K1 Q	RT	RT	47,9	73,1	73,1	29
01 350399 17648	B07.3	K1 Q	RT	RT	51,3	76,6	76,6	27
01 350399 17724	B07.4	K1 Q	RT	RT	50,5	76,3	76,3	28
01 350399 20921	B07.5	K1 Q	RT	RT	49,9	75,7	75,7	25
01 350399 21295	B07.6	K1 Q	RT	RT	50,8	76,4	76,4	26
01 350399 21306	B07.7	K1 Q	RT	RT	50,5	75,8	75,8	26
01 350399 21322	B07.8	K1 Q	RT	RT	50,3	76,3	76,3	28
01 350405 39539	B07.9	K1 Q	RT	RT	50,9	75,8	75,8	29
01 350405 39694	B07.10	K1 Q	RT	RT	50,5	75,0	75,0	28
01 350405 39715	B07.11	K1 Q	RT	RT	50,2	75,4	75,4	31
01 350405 39774	B07.12	K1 Q	RT	RT	49,7	75,3	75,3	27
01 350405 39799	B07.13	K1 Q	RT	RT	49,6	75,0	75,0	28
01 350405 39959	B07.14	K1 Q	RT	RT	50,3	75,8	75,8	28
01 350405 39965	B07.15	K1 Q	RT	RT	48,7	74,7	74,7	28
02 350401 15513	B07.16	K1 Q	RT	RT	46,7	73,7	73,7	27
02 350401 15526	B07.17	K1 Q	RT	RT	48,3	73,5	73,5	28
02 350401 15608	B07.18	K1 Q	RT	RT	49,0	74,2	74,2	26
02 350401 15610	B07.19	K1 Q	RT	RT	46,7	73,5	73,5	30
02 350401 15626	B07.20	K1 Q	RT	RT	49,2	74,2	74,2	28

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	Inspector's stamp Date 17.09.10	BM 1
QM-System: Certification as per ISO 9001				
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

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
8/...

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

C10-C29 Tensile test

B14 B07.2 Item Heat No. 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 % LO-EN	C14-C15
02 350401 15645			K1 Q	RT 48,9	74,0	29	
02 350402 15169			K1 Q	RT 49,2	75,1	28	
02 350402 15399			K1 Q	RT 50,5	75,3	28	
02 350405 39714			K1 Q	RT 49,5	75,3	26	
02 350405 39946			K1 Q	RT 49,0	75,4	28	
02 350405 39963			K1 Q	RT 48,6	74,5	27	
02 350405 40537			K1 Q	RT 46,5	73,7	27	
03 350403 13199			K1 Q	RT 50,0	75,5	27	
03 350403 13308			K1 Q	RT 49,3	75,3	26	
04 350403 11964			K1 Q	RT 49,9	74,1	30	
04 350403 11979			K1 Q	RT 49,2	74,7	29	
04 350403 12013			K1 Q	RT 49,0	74,0	29	
04 350403 12280			K1 Q	RT 49,9	74,1	27	
04 350403 12638			K1 Q	RT 50,0	74,5	28	
04 350404 11955			K1 Q	RT 49,6	74,7	29	
04 350405 05031			K1 Q	RT 48,9	74,8	30	
05 350402 14854			K1 Q	RT 49,7	75,1	27	
07 350404 06356			K1 Q	RT 49,3	75,0	28	
07 350404 06357			K1 Q	RT 50,0	74,1	29	
07 350404 06943			K1 Q	RT 49,7	74,1	30	
07 350404 07812			K1 Q	RT 49,6	74,4	30	
07 350404 07813			K1 Q	RT 50,3	74,0	30	
07 350404 10672			K1 Q	RT 50,2	74,2	30	

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



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

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DILLINGER HÜTTE

Erfahrungen 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)				B01 Product		HOT ROLLED PLATES	
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		EDMONTON STEEL, EDMON		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					

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B05 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01	C10 C11 KSI	C12 C13 RM	C14-C15 A % L ₀ -EIN
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

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01	C30 Temp. GR.F	C35 C31 Individual values	C32 Mean value
01	348840	11315		K1 O	RT HBW 10/3000	HB 147	148
01	350041	63961		K1 O	RT HBW 10/3000	HB 141	142
01	350399	17648		K1 O	RT HBW 10/3000	HB 146	146
01	350399	17724		K1 O	RT HBW 10/3000	HB 148	146
01	350399	20921		K1 O	RT HBW 10/3000	HB 146	145
01	350399	21295		K1 O	RT HBW 10/3000	HB 144	144
01	350399	21306		K1 O	RT HBW 10/3000	HB 144	143
01	350399	21322		K1 O	RT HBW 10/3000	HB 142	142
01	350405	39539		K1 O	RT HBW 10/3000	HB 142	142
01	350405	39694		K1 O	RT HBW 10/3000	HB 142	142
01	350405	39715		K1 O	RT HBW 10/3000	HB 144	144
01	350405	39774		K1 O	RT HBW 10/3000	HB 145	145
01	350405	39799		K1 O	RT HBW 10/3000	HB 145	145
01	350405	39959		K1 O	RT HBW 10/3000	HB 144	145
01	350405	39965		K1 O	RT HBW 10/3000	HB 139	139
02	350401	15513		K1 O	RT HBW 10/3000	HB 142	142

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. BALDAUF
Test House Manager

Inspector's stamp Date 17.09.10

BM 1

A01

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



DILLINGER HÜTTE

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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)				B01 Product		
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		A07.1 No. ED10551-JL1010-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				

C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B07.1 Rollplate/ Test No.	B05 References (heat treatment)	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35 Individual values	C32 Mean value
02	350401	15526		K1	O	RT	HBW 10/3000	HB 142	142
02	350401	15608		K1	O	RT	HBW 10/3000	HB 141	140
02	350401	15610		K1	O	RT	HBW 10/3000	HB 142	141
02	350401	15626		K1	O	RT	HBW 10/3000	HB 138	139
02	350401	15645		K1	O	RT	HBW 10/3000	HB 139	137
02	350401	15169		K1	O	RT	HBW 10/3000	HB 141	140
02	350402	15399		K1	O	RT	HBW 10/3000	HB 146	144
02	350405	39714		K1	O	RT	HBW 10/3000	HB 144	144
02	350405	39946		K1	O	RT	HBW 10/3000	HB 145	145
02	350405	39963		K1	O	RT	HBW 10/3000	HB 142	141
02	350405	40537		K1	O	RT	HBW 10/3000	HB 141	141
03	350403	13199		K1	O	RT	HBW 10/3000	HB 143	142
03	350403	13308		K1	O	RT	HBW 10/3000	HB 142	142
04	350403	11964		K1	O	RT	HBW 10/3000	HB 142	142
04	350403	11979		K1	O	RT	HBW 10/3000	HB 142	142
04	350403	12013		K1	O	RT	HBW 10/3000	HB 143	143
04	350403	12280		K1	O	RT	HBW 10/3000	HB 142	142
04	350403	12638		K1	O	RT	HBW 10/3000	HB 141	141
04	350404	11955		K1	O	RT	HBW 10/3000	HB 141	141
04	350405	05031		K1	O	RT	HBW 10/3000	HB 144	145
05	350402	14854		K1	O	RT	HBW 10/3000	HB 148	146
07	350404	06356		K1	O	RT	HBW 10/3000	HB 142	142
07	350404	06357		K1	O	RT	HBW 10/3000	HB 139	139
07	350404	06943		K1	O	RT	HBW 10/3000	HB 142	142

A04 201202Z03 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 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		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		369429-17.09.10		357359-002		11/...
MATERIAL TEST REPORT (MTR)		A07.1 No. ED10551-J1010-ER		B01 Product		
A05 Established inspecting body		A06 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-HUS-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
07	350404	07812		K1	O	RT	HBW 10/3000	HB 145	145
07	350404	07813		K1	O	RT	HBW 10/3000	HB 144	144
07	350404	10672		K1	O	RT	HBW 10/3000	HB 146	144
07	350404	11097		K1	O	RT	HBW 10/3000	HB 144	144
07	350405	05063		K1	O	RT	HBW 10/3000	HB 146	146
07	350405	05064		K1	O	RT	HBW 10/3000	HB 144	144
07	350405	05065		K1	O	RT	HBW 10/3000	HB 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	C45 Individual values AV=FT.LBF	C43 Mean value
01	348840	11315		K1	LV	-51		CHP-V			AV 101	121
01	350041	63961		K1	LV	-51		CHP-V			AV 208	195
01	350399	17648		K1	LV	-51		CHP-V			AV 193	143
01	350399	17724		K1	LV	-51		CHP-V			AV 117	149
01	350399	20921		K1	LV	-51		CHP-V			AV 124	135
01	350399	21295		K1	LV	-51		CHP-V			AV 119	145
01	350399	21306		K1	LV	-51		CHP-V			AV 141	161
01	350399	21322		K1	LV	-51		CHP-V			AV 122	171
01	350405	39539		K1	LV	-51		CHP-V			AV 184	192
01	350405	39694		K1	LV	-51		CHP-V			AV 208	179
01	350405	39715		K1	LV	-51		CHP-V			AV 104	150
01	350405	39774		K1	LV	-51		CHP-V			AV 119	152
01	350405	39799		K1	LV	-51		CHP-V			AV 129	163
01	350405	39959		K1	LV	-51		CHP-V			AV 198	185

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

AHB

B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM 1

D/H
Manufacturer's mark

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

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		A08 Manufacturer's order/ A03 Certificate No.	Sheet
369429-17.09.10		357359-002	12/...
A05 Established inspecting body DH		B01 Product	
EDMONTON STEEL, EDMON		HOT ROLLED PLATES	
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			

C40-C49 impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol-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	C45 C42 Individual values AV=FTLEF	C43 Mean value
01	350405	39965		K1	LV	-51		CHP-V			147	176
02	350401	15513		K1	LV	-51		CHP-V			150	135
02	350401	15526		K1	LV	-51		CHP-V			209	177
02	350401	15608		K1	LV	-51		CHP-V			131	133
02	350401	15610		K1	LV	-51		CHP-V			193	165
02	350401	15626		K1	LV	-51		CHP-V			212	175
02	350401	15645		K1	LV	-51		CHP-V			207	183
02	350402	15169		K1	LV	-51		CHP-V			118	159
02	350402	15399		K1	LV	-51		CHP-V			164	162
02	350405	39714		K1	LV	-51		CHP-V			201	154
02	350405	39946		K1	LV	-51		CHP-V			124	151
02	350405	39963		K1	LV	-51		CHP-V			192	145
02	350405	40537		K1	LV	-51		CHP-V			131	152
03	350403	13199		K1	LV	-51		CHP-V			148	128
03	350403	13308		K1	LV	-51		CHP-V			188	153
04	350403	11964		K1	LV	-51		CHP-V			106	160
04	350403	11979		K1	LV	-51		CHP-V			142	121
04	350403	12013		K1	LV	-51		CHP-V			118	133
04	350403	12280		K1	LV	-51		CHP-V			187	164
04	350403	12638		K1	LV	-51		CHP-V			157	129
04	350404	11955		K1	LV	-51		CHP-V			127	123
04	350404	05031		K1	LV	-51		CHP-V			128	158
05	350402	14854		K1	LV	-51		CHP-V			125	126
07	350404	06355		K1	LV	-51		CHP-V			129	135

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

AHB

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

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		13/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body		EDMONTON STEEL, EDMON		HOT ROLLED PLATES		
DH		EDMONTON STEEL, EDMON				
B02 Steel design.		SA516-70				
B03 Any suppl.		ASME-II-A: 07-A09				
requirements		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. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 Individual values AV=FT.LBF	C43 Mean value
07	350404	06357		K1	LV	-51		CHP-V				
07	350404	06943		K1	LV	-51		CHP-V				
07	350404	07812		K1	LV	-51		CHP-V				
07	350404	07813		K1	LV	-51		CHP-V				
07	350404	10672		K1	LV	-51		CHP-V				
07	350404	11097		K1	LV	-51		CHP-V				
07	350405	05063		K1	LV	-51		CHP-V				
07	350405	05064		K1	LV	-51		CHP-V				
07	350405	05065		K1	LV	-51		CHP-V				

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MIN.	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	0,003	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

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



Manufacturer's mark

B. BALDAUF

Test House Manager

AHB

Inspector's stamp

Date 17.09.10

BM

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



A02	INSPECTION CERTIFICATE 3.1	AS PER EN 10204:2004
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MATERIAL TEST REPORT (MTR)

B02' Steel design. SA516-70

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

C70-C99 Chemical composition % - Heat analysis

3607.2 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										
348840	FO-02=	0,40	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,4
350041	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14	FO-78=	0,06	FO-91=	7,3
350399	FO-02=	0,39	FO-51=	0,001	FO-55=	0,17	FO-78=	0,06	FO-91=	6,8
350401	FO-02=	0,38	FO-51=	0,001	FO-55=	0,13	FO-78=	0,04	FO-91=	6,9
350402	FO-02=	0,39	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,8
350403	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,9
350404	FO-02=	0,39	FO-51=	0,000	FO-55=	0,15	FO-78=	0,04	FO-91=	6,8
350405	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

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 7



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

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	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	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

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



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

A01



DILLINGER HÜTTE

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

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dsm-ger.de/ger/uncat/uncat)				
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	16/...
A05 Established inspecting body		B01 Product		
DH	A06 Purchaser Final receiver	EDMONTON STEEL, EDMON EDMONTON STEEL, EDMON	A07.1 No. ED10551-J1010-ER A07.2 No.	HOT ROLLED PLATES

B02/ Steel design.	SA516-70	A07.1 No. ED10551-J1010-ER		
B03 Any suppl.	ASME-II-A:07+A09	EDMONTON STEEL, EDMON		
requirements	DIL-HUE-2:R30-2010-01-31	EDMONTON STEEL, EDMON		
		SA20-S5		

C70-C99 Chemical composition % - Product analysis

B07.2	B07.1	C01	B	CA	AL-T
Heat	Test No.				
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	15508	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	B07.1	C01	FO-02=	FO-51=	FO-55=
Heat	Test No.				
348840	11315	K1	0,40	0,001	0,14
350041	63959	K1	0,37	0,002	0,14
350041	63961	K1	0,37	0,002	0,14
350399	21322	K1	0,39	0,000	0,16
350401	15508	K1	0,37	0,001	0,13
350402	14890	K1	0,38	0,002	0,14
350402	15169	K1	0,38	0,001	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

AHB

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	Sheet
	INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991			369429-17.09.10	17
MATERIAL TEST REPORT (MTR)			A03 Manufacturer's order/ Certificate No.		
			357359-002		
			B01 Product		
			HOT ROLLED PLATES		
A06 Established inspecting body			A07.1 No. ED10551-J1010-ER		
DH			EDMONTON STEEL, EDMON		
A08 Purchaser			A07.2 No.		
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					

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= 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

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	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		A01
		AG der Dillinger Hüttenwerke	
QM-System: Certification as per ISO 9001		Postfach 1580, D-66748 Dillingen/Saar	
Inspector's stamp		Inspection department	
B. BALDAUF		Date 17.09.10	
Test House Manager		BM 1	



DILLINGER HÜTTE

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

A03 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 Articles of dispatch No./ Date of dispatch 369817-21.09.10	A08/ Manufacturer's order/ A03 Certificate No. 357359-003	Sheet 1/...
A03 Established inspecting body DH		B01 Product HOT ROLLED PLATES		
A03 Steel design. SA516-70 A03 Any suppl. requirements ASME-II-A-07+A09 DIL-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.	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 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	
***	16				102732				

A04: 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



AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

B. BALDAUF
Test House Manager

Inspector's stamp

Date 22.09.10

PP

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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.		Street	
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			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		EDMONTON STEEL, EDMONT		EDMONTON STEEL, EDMONT		SA20-S5	
B02/ Steel design.		SA516-70					
B03 Any suppl. requirements		ASME-II-A:07+A09					
		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		B05		C01 C02/ C03		C10 C11	
Item Heat No.		Rol./plate/ Test No.		References (heat) treatment		KSI	
01 348840 11315		K1 Q		RT		RP02	
01 350399 21306		K1 Q		RT		51,3	
01 350405 39694		K1 Q		RT		50,5	
01 350405 39715		K1 Q		RT		50,5	
02 350405 39714		K1 Q		RT		50,2	
04 350403 12280		K1 Q		RT		49,6	
05 350402 14890		K1 Q		RT		49,9	
05 350403 14124		K1 Q		RT		49,7	
06 350402 15168		K1 Q		RT		49,0	
		K1 Q		RT		49,6	
				C12		C13	
				RM		%	
				77,6		27	
				75,8		26	
				75,0		28	
				75,4		31	
				75,3		26	
				74,1		27	
				74,5		29	
				75,0		26	
				74,1		30	
				C14-C15			
A04							
2012/02/203		We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.				A01	
D/H		QM-System: Certification as per ISO 9001				AG der Dillinger Hüttenwerke	
Manufacturer's mark						Postfach 1580, D-66748 Dillingen/Saar	
						Inspection department	
						Inspector's stamp	
						Date 22.09.10	
						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	A1D	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)		369817-21.09.10	357359-003	3 / ...

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body		369817-21.09.10		357359-003	3/...
DH		EDMONTON STEEL, EDMON		B01 Product	
Final receiver		EDMONTON STEEL, EDMON		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

C10-C29 Tensile test

B14 B07.2 Item Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/C03 C01 Temp. GR.F	C10 C11 KSI RP02	C12 C13 RM 75,0 72,4	C14-C15 A % LO=8IN 28 31
07 350404	06356		K1 Q RT	49,3		
08 350041	63959		K1 Q RT	49,2		

C30-C39 Hardness test

B14 B07.2 Item Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/C01 C01 Temp. GR.F	C30 C31 Temp. GR.F	C32 C33 Method of test	C34 C35 Individual values	C32 C33 Mean value
01 348840	11315		K1 O	RT HBW 10/3000	HB 147	149	148
01 350399	21306		K1 O	RT HBW 10/3000	HB 144	143	143
01 350405	39694		K1 O	RT HBW 10/3000	HB 142	141	142
01 350405	39715		K1 O	RT HBW 10/3000	HB 142	141	142
02 350405	39714		K1 O	RT HBW 10/3000	HB 144	144	144
04 350403	12280		K1 O	RT HBW 10/3000	HB 142	142	142
05 350402	14890		K1 O	RT HBW 10/3000	HB 143	144	143
05 350403	14124		K1 O	RT HBW 10/3000	HB 147	146	146
06 350402	15168		K1 O	RT HBW 10/3000	HB 143	143	143
07 350404	06356		K1 O	RT HBW 10/3000	HB 142	142	142
08 350041	63959		K1 O	RT HBW 10/3000	HB 138	139	139

C40-C49 Impact test

B14 B07.2 Item Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C01	C40 C41 Temp. GR.F	C42 C43 Width of test place	C44 C45 Type of test place	C46 C47 Testing method	C43 C44 Mean value
01 348840	11315		K1 LV	-51	CHP-V	CHP-V	AV 101 123	139
01 350399	21306		K1 LV	-51	CHP-V	CHP-V	AV 141 209	161
01 350405	39694		K1 LV	-51	CHP-V	CHP-V	AV 208 187	179

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



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

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		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		4 / ...	
MATERIAL TEST REPORT (MTR)							
A05 Established inspecting body		EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER		B01 Product	
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

B04 Item No.	B07.2 Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01	C02	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 Individual values AV=FT.LBF	C42 Individual values AV=FT.LBF	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	154
04	350403	12280		K1	LV	-51		CHP-V			AV 109	187	164
05	350402	14890		K1	LV	-51		CHP-V			AV 125	111	119
05	350403	14124		K1	LV	-51		CHP-V			AV 136	128	136
06	350402	15168		K1	LV	-51		CHP-V			AV 111	94	107
07	350404	06356		K1	LV	-51		CHP-V			AV 131	129	135
08	350041	63959		K1	LV	-51		CHP-V			AV 238	236	238

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	Si	Mn	P	S	N	CU	MO	NI	GR	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

Manufacturer's
mark

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

*B. Baldauf*B. BALDAUF
Test House Manager

Inspector's stamp

Date 22.09.10

PP

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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/certificat(e))

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 D11-HUE-2:R30-2010-01-31
SA20-S5

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
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

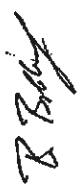
C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	FO-02=	FO-51=	FO-55=	FO-78=	FO-91=
348840	0,40	0,001	0,14	0,04	6,4
350041	0,38	0,001	0,14	0,06	7,3
350399	0,39	0,001	0,17	0,06	6,8
350402	0,39	0,001	0,14	0,04	6,8
350403	0,38	0,001	0,14	0,04	6,9
350404	0,39	0,000	0,15	0,04	6,8
350405	0,39	0,001	0,14	0,05	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	 Manufacturer's mark	 B. BALDAUF Test House Manager	 AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar inspection department	Data 22.09.10 Inspector's stamp	pp 1
A01					

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



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)				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-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																V	CR	NI	MO	CU	N	S	P	MN	SI	C	AL-T	Ti
		KL	KL	KL	KL	KL	KL	KL	KL	KL	KL	KL	KL	KL	KL	KL	KL													
348840	11315	KL	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	0,001	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003
350041	63959	KL	0,157	0,335	1,16	0,010	0,0011	0,0071	0,035	0,014	0,048	0,045	0,002	0,000	0,000	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003
350041	63961	KL	0,157	0,340	1,16	0,011	0,0010	0,0074	0,036	0,013	0,047	0,045	0,002	0,000	0,000	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003
350399	21322	KL	0,175	0,367	1,17	0,009	0,0012	0,0072	0,046	0,015	0,055	0,042	0,000	0,000	0,000	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003
350402	14890	KL	0,168	0,389	1,17	0,010	0,0011	0,0065	0,036	0,011	0,065	0,027	0,001	0,000	0,000	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003
350402	15169	KL	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	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003
350403	11979	KL	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	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,002
350403	13199	KL	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	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,002
350404	11097	KL	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	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003
350404	11955	KL	0,172	0,366	1,15	0,008	0,0012	0,0062	0,041	0,008	0,062	0,031	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,002
350405	05031	KL	0,173	0,376	1,17	0,008	0,0014	0,0059	0,041	0,010	0,062	0,033	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,002
350405	05063	KL	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	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,002
350405	39946	KL	0,175	0,370	1,16	0,008	0,0014	0,0061	0,037	0,010	0,055	0,035	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003
350405	39965	KL	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	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,003

C01

B07.2	B07.1	C01																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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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		AHB Inspector's stamp		PP 1	
				Date 22.09.10			

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		369817-21.09.10	357359-003	7/...
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

C70-C99 Chemical composition % - Product analysis

B07.2	B07.1	C01	B	CA	AL-T
Heat	Test No.				
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	B07.1	C01	FO-02=	FO-51=	FO-55=
Heat	Test No.				
348840	11315	K1	FO-02=	FO-51=	FO-55=
350041	63959	K1	FO-02=	FO-51=	FO-55=
350041	63961	K1	FO-02=	FO-51=	FO-55=
350399	21322	K1	FO-02=	FO-51=	FO-55=
350402	14890	K1	FO-02=	FO-51=	FO-55=
350402	15169	K1	FO-02=	FO-51=	FO-55=
350403	11979	K1	FO-02=	FO-51=	FO-55=
350403	13199	K1	FO-02=	FO-51=	FO-55=
350404	11097	K1	FO-02=	FO-51=	FO-55=
350404	11955	K1	FO-02=	FO-51=	FO-55=
350405	05031	K1	FO-02=	FO-51=	FO-55=
350405	05063	K1	FO-02=	FO-51=	FO-55=
350405	39946	K1	FO-02=	FO-51=	FO-55=
350405	39965	K1	FO-02=	FO-51=	FO-55=

A04



Manufacturer's mark

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. Baldauf

B. BALDAUF

Test House Manager



Inspector's stamp

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

Date 22.09.10

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 369917-21.09.10	A08/ Manufacturer's order/ A03 Certificate No. 357359-003	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 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. 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.: 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.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01
		A01B		
QM-System: Certification as per ISO 9001		B. BALDAUF Test House Manager		
		Inspector's stamp Date 22.09.10		PP 1

ORIGINAL

MILL TEST CERTIFICATE

15801

DONGKUK STEEL

Order No. : J10A400091

PO No. : LPP201009011

Commodity : STEEL PLATE

Specification : ASME SA516-70N: 2007 ED

Supplier

: DONGKUK INTERNATIONAL, INC.

Certificate No.

: DP3-2-101129-057-001

Customer

: DAEWOO INTERNATIONAL-AMERICA

Date of issue

: Nov. 29, 2010

Dimension Unit Inch: " mm: Space	Product No	Quantity	Weight kg	Heat No	P o s i t i o n	Tensile Test				Impact Test		Chemical Composition														Remarks		
						EL %	YS ksi	TS ksi	EL %	S ub V Notch ft*lb ft*lb	D i a m e t e r I n c h	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T.Ai %	S.Ai %		Ceq %	
9.52x2451x12192 0.375"x96.5"x480" *Specimen No : DP0210303-a, DP0210303-c ** Normalized: 1670°F, 23min	A085441-01.02.03 Sub Total (10)		2,235	J1011839	T	1	54	77	23	1	1:140 2:157 3:126 A:141	L	16	36	143	11	8	13	2	1	5	1	1	1	32	3	399	
9.52x2451x12192 0.375"x96.5"x480" *Specimen No : DP0210303-a, DP0210303-c ** Normalized: 1670°F, 23min	A085443-01.02.03 Sub Total (10)	3	6,705	J1021969	T	1	54	78	22	1	1:99 2:109 3:82 A:89	L	17	36	144	16	2	12	2	1	2	1	2	1	34	3	410	
9.52x2451x12192 0.375"x96.5"x480" *Specimen No : DP0210303-a, DP0210303-c ** Normalized: 1670°F, 23min	A085442-01.02.03 Sub Total (10)	3	6,705	J1031953	T	1	54	77	24	1	1:145 2:198 3:154 A:165	L	16	38	144	12	2	14	1	1	3	1	2	1	27	3	403	
	Sub Total (10)	3	6,705																									

* Tensile Test Direction-Transverse * Impact Test Direction-Longitudinal * Ceq = C+Mn(5+Ni+Cu)/13+(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.
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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/5+(Ni-Cu)/15+(Cr+Mo)/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(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, 6-5.65-A, 7-5d, 8-4d, 9-8d
* 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

Surveyor to

Chief of Quality Control Team

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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. : DP3-2-101129-057-002
 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 i v i s i o n																				
						Y _P	T _S	E _L	S	U	V	Notch	ft+lbft	C	Si	Mn	P	S	Cr		Ni	Cu	Mo	Nb	Ti	V	T.Ai	S.Ai	Ceq			
9.52*2451*12192 0.375*98.5*480** *Specimen No : DP02020804-a, DP02020804-c ** Normalized: 1670 F, 23min	A083298-01		2,235	JK566054	T	1	52	79	23	1	1:147 2:137 3:180 A:148					16	37	143	20	4	30	1	3	2	1	1	2	3	3	34	408	
Sub Total (10)		1	2,235																													
9.52*3051*12192 0.375*120.5*480** *Specimen No : DP02072808-a, DP02072808-c ** Normalized: 1670 F, 23min:	A084297-01,02		2,790	JK566052	T	1	53	79	24	1	1: 96 2: 89 3: 94 A: 93					16	37	143	17	3	20	1	2	1	1	2	2	3	3	31	405	
Sub Total (20)		2	5,580																													
9.52*3051*12192 0.375*120.5*480* *Specimen No : DP02071803-a, DP02071803-c ** Normalized: 1670 F, 23min	A084295-01,02		2,790	JK566053	T	1	53	78	22	1	1: 87 2:108 3:132 A:109					16	37	143	19	4	30	1	2	1	1	2	2	3	3	39	407	
Sub Total (20)		2	5,580																													
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 : 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-A, 7-5d, 8-4d, 9-8d * 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.

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

Daewoo Works, 400 Hanjin-r1, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

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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

Dimension Unit inch: ", mm: Space	Product No	Quant ity	Weight kg	Heat No	P o s i t i o n	Tensile Test					Impact Test			Chemical Composition														Remarks						
						YP	TS	EL	S u b	V Notch ft-lbf	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T.A	S.A	Ceq									
9.52x3061x12192 0.375"x120.5"x480" *Specimen No : DP02065507-a, DP02065507-c ** Normalized: 1670°F, 22min	A084296-02.03		2,790	JK566054	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																															
12.70x2451x12192 0.5"x96.5"x480" *Specimen No : DP0204501-a, DP0204501-c ** Normalized: 1670°F, 22min	A087507-01.02.03		2,980	J1775988	T	1	50	74	24		1:81 2:61 3:73 A:72	16	36	143	16	8	20	1	1	1	1	3	34	404										
Sub Total (30)		3	8,940																															
12.70x3061x12192 0.5"x120.5"x480" *Specimen No : DP02040403-a, DP02040403-c ** Normalized: 1670°F, 22min	A088738-01.02		3,721	JK566051	T	1	49	78	23		1:133 2:146 3:134 A:137	16	39	143	16	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/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.																			* Specimen No. : a-Tension, c-Impact * Position : T-Top, M-Middle, B-Bottom * Division : 1-Ladle Analysis, P-Product Analysis * Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5x10, 2-5.0x10 * Gauge Length, mm) : 1-200, 3-80, 4-70, 5-50, 6-5.65x, 7-3d, 8-4d, 9-8d * T(S)/A : Total(Soluble) A/I									
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(S) Size, Real Value, mm): Blank-Full Size, 1-7.5*10, 2-5.0*10
 * GL(Gauge Length, mm): 1-200, 2-80, 4-70, 5-50, 6-5.65*10
 * 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 _____
 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

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	Quantity	Weight kg	Heat No	Tensile Test		Impact Test		Chemical Composition														Remarks			
					Yield Strength		Tensile Strength		Charpy		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V		T.Ai	S.Ai	Ceq
					YS	TS	EL	TS	EL	U																
12.70*3051*12192 0.5"X120.5"X480"	A084290-01.02	2	3,721	JK566052	1	52	77	24	1: 77 2: 120 3: 75 A: 90	16	37	143	17	3	20	1	2	1	1	2	3	3	3	31	405	
Sub Total (40)		2	7,442																							
12.70*3051*12192 0.5"X120.5"X480"	A084288-01.02	2	3,721	JK566054	1	52	78	23	1: 70 2: 81 3: 70 A: 73	16	37	143	20	4	30	1	2	1	1	2	3	3	34	408		
Sub Total (40)		2	7,442																							
12.70*3051*12192 0.5"X120.5"X480"	A084289-01.02	2	3,721	JK566054	1	54	78	23	1: 127 2: 146 3: 158 A: 143	16	37	143	20	4	30	1	2	1	1	2	3	3	34	408		
Sub Total (40)		2	7,442																							

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.

* 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

Surveyor to

Surveyor to

Surveyor to

Surveyor to

Chief of Quality Control Team

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

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ORIGINAL

MILL TEST CERTIFICATE

DX DONGKUK STEEL

Order No. : J10A400091
 PO No. : LP201009011
 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	P o s i t i o n	Tensile Test												Impact Test S i m u l a t e d f t-lbf	Chemical Composition												Remarks
						Y P T S			E L	U 1	V N o t c h	-50 ° F	C	Si	Mn	P	S		Cr	Ni	Cu	Mo	Nb	Ti	V	T.Ai	S.Ai	Ceq			
						ksi	%	%																							
15.88*3061*12192 0.625"X120.5"X480" *Specimen No : DP02065503-a, DP02065503-b ** Normalized : 1670°F, 32min	A084042-01		4,652	J2752178	T 1	49	74	24					16	39	140	16	7	20	1	1	1	1	4	31	3	3	400				
Sub Total (50)		1	4,652																												
15.88*3061*12192 0.625"X120.5"X480" *Specimen No : DP02065501-a, DP02065501-b ** Normalized : 1670°F, 32min	A084041-01		4,652	J2753135	T 1	47	73	24					15	37	143	17	11	20	1	1	1	1	3	31	3	3	394				
Sub Total (50)		1	4,652																												
19.05*3061*12192 0.75"X120.5"X480" *Specimen No : DP02065504-a, DP02065504-b ** Normalized : 1670°F, 37min	A084024-01.02		5,580	J2752178	T 1	50	75	25					16	39	140	16	7	20	1	1	1	1	4	31	3	3	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 : 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, 7-56, 8-4d, 9-8d * 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)/5
 * Supply Condition - Normalized
 * Chemical Composition Unit(%): 2-x100, 3-x100, 4-x10000

* Specimen No. : a-Tension, b-Impact
 * Position : T-Top, M-Middle, B-Bottom
 * Division : L-Ladle Analysis, P-Product Analysis
 * Subj Size, Real Value, mm) : Blank-Full Size, 1-7 5x10, 2-5.0x10
 * GA (Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65-A,
 7-50, 8-40, 9-80
 * 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 : 5/12

Dangjin Works, 400 Hanjin-rd, 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. Certificate No. : DP3-2-101129-057-006
Customer : DAEWOO INTERNATIONAL AMERICA 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	Tensile Test										Impact Test			Chemical Composition																	Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
						Y P	T S	E L	G L	k s i	%	S u	V	N o t c h	F t * l b f	C	S i	M n	P	S	C r	N i	C u	M o	N b	T i	V	T . A l	S . A l	C e q																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
19.05*3061*12192 0.75"x120.5"x480" *Specimen No : DP02071401-a, DP02071401-c ** Normalized: 1670°F, 37min	A084063-01.02		5,580	JK467025	T	1	54	78	25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

[Signature]

Surveyor to : _____ Surveyor to : _____ Chief of Quality Control Team : _____
Danglin Works, 400 Hanjin-ri, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea Page : 6/12

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.

* 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(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, 9-80
* 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.

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	Quant ity	Weight kg	Heat No	Chemical Composition																		Remarks								
					Tensile Test			Impact Test		D																					
					QL	YP	TS	EL	S	U	V Notch	-50 ° F	S	O	N	C	Si	Mn	P	S	Cr	Ni		Cu	Mo	Nb	Ti	V	T.Ai	S.Ai	Ceq
						ksi	%																								
19.05*3061*12192 0.75"x120.5"x480" *Specimen No : DP0206504-a, DP0206504-b, DP0206504-c, ** Normalized: 1670°F, 37min	A084064-01.02		5.580	JK566054	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		
Sub Total (60)																															
22.22*3061*12192 0.875"x120.5"x480" *Specimen No : DP0206501-a, DP0206501-b, DP0206501-c, ** Normalized: 1570°F, 5min	A083492-01	2	11.160		T	1	45	74	26					1: 59 2: 78 3:116 A: 84	15	38	144	20	6	20	1	1	1	1	1	4	32		396		
Sub Total (70)																															
22.22*3061*12192 0.875"x120.5"x480" *Specimen No : DP0206503-a, DP0206503-b, DP0206503-c, ** Normalized: 1670°F, 5min	A084021-01.02	1	6.512	J2752178	T	1	45	74	27					1:125 2:118 3:113 A:119	16	39	140	16	7	20	1	1	1	1	1	4	31		400		
Sub Total (70)																															
2																															
13.024																															
2																															
10204 3.1.																															
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																															
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(S) 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, 6-5.65A,
 7-5d, 8-4d, 9-3d
 * 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 _____
 Dangjin Works, 400 Hanlin-ri, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea

Chief of Quality Control Team _____
 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. : DP3-2-101129-057-008
 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																			
					Y P	T S	E L	S	U	V	S	C	Si	Mn	P	S	Cr	Ni		Cu	Mo	Nb	Ti	V	T Al	S Al	Ceq	
					ksi	%	ft* lbf	n	n	n	n	n	n	n	n	n	n	n		n	n	n	n	n	n	n	n	n
22.22*3061*12192 0.875"X120.5"X480" *Specimen No : DP02039303-a, DP02039303-c ** Normalized: 1670°F, 5min	A083493-01		6,512	J3202300	T 1	48	76	27					1: 87 2: 110 3: 108 A: 102	16	38	143	17	6	20	1	1	1	1	3	33		404	
22.22*3061*12192 0.875"X120.5"X480" *Specimen No : DP0206901-a, DP0206901-c ** Normalized: 1670°F, 5min	A084056-01,02	1	6,512	JK566051	T 1	47	77	26					1: 127 2: 152 3: 155 A: 145	16	39	143	16	4	20	1	2	1	1	2		39	405	
22.22*3061*12192 0.875"X120.5"X480" *Specimen No : DP02072804-a, DP02072804-c ** Normalized: 1670°F, 5min	A084057-01,02	2	13,024	JK666052	T 1	51	76	27					1: 151 2: 151 3: 146 A: 149	16	37	143	17	3	20	1	2	1	1	2		31	405	
	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
* 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, b-Bottom
* Position: T-Top, M-Middle, P-Bottom
* Division: L-Ladle 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, 6-5.65x4, 7-50, 8-40, 9-80
* 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 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.

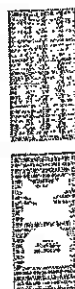
* Specimen No. : a-Tension, C-Impact
 * Position : T-Top, M-Middle, B-Bottom
 * Division : L-Ladle Analysis, P-Product Analysis
 * Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10
 * GI (Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65-VA,
 7-50, 8-40, 9-30
 * (TS)/AI : Total(Soluble)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

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

[Signature]

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

Dangjin 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.: DP3-2-101129-057-009
 Date of issue: Nov. 29, 2010

Dimension Unit Inch: * mm; Space	Product No	Quantity	Weight kg	Heat No	P o s i t i o n	Tensile Test					Impact Test		Chemical Composition														Remarks								
						Y P	T S	E L	S u b	V N o t c h	F t l b f	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T.Ai	S.Ai	Ceq									
																												%	ksi	%					
22.22x3051*12192 0.875*120.5*480* *Specimen No :DP02071801-a, DP02071801-c ** Normalized: 1670°F, 5min	A084058-01,02		6,512	JK566053	T	1	48	77	26			1:135 2:149 3:138 A:141		16	37	143	19	4	30	1	2	1	1	1	2	3	3	3	39	407					
25.40x2451*12192 1*95.5*480* *Specimen No :DP02040202-a, DP02040202-c ** Normalized: 1670°F, 55min	A083466-01	2	13,024	J1774078	T	1	49	74	27			1: 58 2: 82 3: 57 A: 66		16	37	143	20	8	20	1	1	1	1	1	4	30				405					
25.40x3051*12192 1*120.5*480* *Specimen No :DP02072801-a, DP02072801-c ** Normalized: 1670°F, 55min	A084052-01	1	5,958	JK566052	T	1	45	75	27			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																																
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 * GL(Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-55-A, 7-5d, 8-4d, 9-8d * T(S,A) : Total(Soluble) Al																	
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: T-Top, M-Middle, B-Bottom
 * Division: L-Ladle Analysis, P-Product Analysis
 * 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, 9-6d
 * TS(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.

[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. Certificate No. : DP3-2-101129-057-010
 Customer : DAEWOO INTERNATIONAL AMERICA 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 i s t r i b u t i o n																	
					Y P	T S	E L	S u b	Y Notch	F																		
												C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V		T.A	S.A	Dec	
					P o s i t i o n	Q u a n t i t y	W e i g h t	H e a t	T e n s i l e	I m p a c t	D	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T.A	S.A	Dec		
31.75*2464*12192 1.25*97*1480* *Specimen No :DP02050001-a, DP02050001-c ** Normalized: 1670°F, 64min	A083461-01		7,488	J1774052	T	1	48	74	30	1: 78 2: 79 3: 109 A: 89	L	16	36	142	19	7	20	1	1	1	1	2	1	3	27	3	403	
Sub Total (100)		1	7,488																									
31.75*2464*12192 1.25*97*1480* *Specimen No :DP02039301-a, DP02039301-c ** Normalized: 1670°F, 64min	A083462-01		7,488	J3202300	T	1	48	74	28	1: 16 2: 13 3: 30 A: 19	L	16	38	143	17	6	20	1	1	1	1	1	1	3	33		404	
Sub Total (100)		1	7,488																									
31.75*2464*12192 1.25*97*1480* *Specimen No :DP02102401-a, DP02102401-c ** Normalized: 1670°F, 64min	A085028-01		7,488	JFD8307	T	1	49	75	27	1:100 2:121 3:119 A:113	L	17	34	145	19	7	20	1	2	1	1	1	1	2		47	418	
Sub Total (100)		1	7,488																									
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: 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 * G1(Gauge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65*10 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.																												

* 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-x100, 4-x10000

* 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
 * G1(Gauge Length, mm) : 1-200, 2-100, 3-80, 4-70, 5-50, 6-5.65*4, 7-5d, 8-4d, 9-8d
 * TIS(AI : Total(Soluble) AI)

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 : Chief of Quality Control Team
 Daejin Works, 400 Hanlin-ni, Songak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, Korea
 Page : 10/12

[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: DAEWO INTERNATIONAL-AMERICA

Certificate No.: DP3-2-101129-057-011
 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	Tensile Test				Impact Test			Chemical Composition													Remarks	
						Yp	TS	EL	S u b	F	V Notch	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti	V	T.A.I	S.A.I		Ceq
ksi	%		b																								
31.75*2464*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			1: 95 L 2:137 3:109 A:114	15	36	144	20	5	30	1	2	1	1	1	2	60	389	
31.75*3073*12192 1.25"x121"x480" *Specimen No :DP02040203-a, DP02040203-c ** Normalized: 1670°F, 64min	A083489-01	1	7,488	J1774078	T	1	47	74	28			1: 90 L 2: 56 3: 59 A: 68	16	37	143	20	8	20	1	1	1	1	1	4	30	405	
31.75*3073*12192 1.25"x121"x480" *Specimen No :DP02047501-a, DP02047501-c ** Normalized: 1670°F, 64min	A083490-01	1	9,340	J2751834	T	1	47	73	27			1: 92 L 2: 62 3: 67 A: 73	16	39	144	15	9	20	1	1	1	1	1	3	28	406	
Sub Total (110)		1	9,340																								

* Tensile Test Direction-Transverse * Impact Test Direction-Longitudinal * Ceq = C+Mn/6+(Ni+Cu)/154+(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.: s-Tension, C-Impact * Position: T-Top, M-Middle, B-Bottom * Division: L-Ladle Analysis, P-Product Analysis * Sub(S) Size, Heat Value, mm): Blank-Full Size, 1-7.5x10, 2-5.0x10, 3-3.0x10, 4-2.0x10, 5-1.5x10, 6-1.0x10, 7-0.5x10, 8-0.25x10, 9-0.125x10, 10-0.0625x10 * GI (Gauge Length, mm): 1-200, 2-100, 3-80, 4-70, 5-50, 6-35, 7-25, 8-15, 9-10, 10-5 * T(S):A: Total(Soluble) A/
	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-x100, 4-x10000

* Specimen No.: a-Tension, b-Impact
 * Position: 1-Top, M-Middle, B-Bottom
 * Division: L-Ladle Analysis, P-Product Analysis
 * Sub(S) 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, 5-60, 6-55, 7-50, 8-40, 9-30
 * T(S)A: Total(Soluble) A

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-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	Chemical Composition														Remarks											
					Tensile Test				Impact Test		Chemical Composition																			
					VP	TS	EL	S	V	F	C	Si	Mn	P	S	Cr	Ni	Cu		Mo	Nb	Ti	V	T.Ai	S.Ai	Ceq				
																											U	Notch		
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP0203502-a, DP0203502-c ** Normalized:1670°F, 64min	A084020-01 Sub Total (110)		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		400	
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02021603-a, DP02021603-c ** Normalized:1670°F, 64min	A082399-01 Sub Total (110)	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	
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02057201-a, DP02057201-c ** Normalized:1670°F, 64min	A084030-01 Sub Total (110)	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	
<Grand Total>		60	298,071																											

APPROVED

FOR MONITORING

RECEIVED



* 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-VA
 7-5d, 8-4d, 9-8d
 * T(S).A.I : Total(Soluble) Al

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

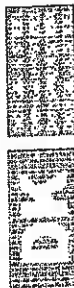
Surveyor to

Surveyor to

Chief of Quality Control Team

Page : 12/12

Dangjin Works, 400 Hanjin-ro, Sonaeak-myeon, Dangjin-gun, Chungcheongnam-do, 343-823, 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 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 372163-28.10.10	A08/ Manufacturer's order/ A03 Certificate No. 357359-004	Sheet 1/...					
A05 Established inspecting body DH		A07.1 No. ED10551-J1010-ER EDMONTON STEEL, EDMON A07.2 No. EDMONTON STEEL, EDMON							
B02/ Steel design. SA516-70		B01 Product HOT ROLLED PLATES							
B03 Any suppl. 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	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 MLTV SA516 60 MLTV									
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					A01				
D/H					AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department				
Manufacturer's mark					Inspector's stamp Date 29.10.10 PP 1				
QM-System: Certification as per ISO 9001					B. BALDAUF Test House Manager				

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



R. Balz



B. BALDAUF
Test House Manager

A01

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

QM-System: Certification as per ISO 9001

Inspector's stamp
Date 29.10.10
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 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No/ Date of dispatch 372163-28.10.10		A08/ Manufacturer's order/ A03 Certificate No. 357359-004		Sheet 2/...	
A05 Established inspecting body Dillinger Hütte		A06 Purchaser EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER		B01 Product HOT ROLLED PLATES	
Dil		Final receiver EDMONTON STEEL, EDMON		A07.2 No.			
B02/ Steel design. SA516-70		SA20-S5					
B03 Any suppl. requirements		DIL-HUB-2:R30-2010-01-31					

C10-C29 Tensile test									
B14 Item No.	B07.2 Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02 C03 C10 C11	C12 C13	C14 C15	A %	LP=LN	
06	350402	14896		K1 Q RT 48,9	RM 74,1		28		
06	350402	14995		K1 Q RT 49,6	74,2		29		
06	350402	15030		K1 Q RT 49,6	74,4		30		

C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02 C03	C30 Temp. GRF	C31 Individual values	C32 Mean value		
06	350402	14896		K1 O	RT HBW 10/3000	HB 147	147		
06	350402	14995		K1 O	RT HBW 10/3000	HB 147	147		
06	350402	15030		K1 O	RT HBW 10/3000	HB 147	148		

C40-C49 Impact test									
B14 Item No.	B07.2 Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02 C03	C40 Type of test piece	C41 Width of test piece	C42 Testing method	C43 Individual values	C44 Mean value
06	350402	14896		K1 LV -51	CHP-V	AV 204	213	100	172
06	350402	14995		K1 LV -51	CHP-V	AV 122	115	202	146
06	350402	15030		K1 LV -51	CHP-V	AV 110	126	101	112

C70-C99 Chemical composition % - Heat analysis															
B07.2 Heat No.	C70	C	Si	Mn	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
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

C70-C99 Chemical composition % - Heat analysis															
B07.2 Heat No.	C70	B	CA	AL-T											
350402	Y	0,0002	0,0013	0,033											

A04		A01	
D/H		AG der Dillinger Hüttenwerke	
Manufacturer's mark		Postfach 1580, D-66748 Dillingen/Saar	
QM-System: Certification as per ISO 9001		Inspection department	
2010/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		Date 29.10.10	
Inspector's stamp		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)

A05 Established inspecting body

A08 Purchaser

EDMONTON STEEL, EDMON

A07.1 No. ED10551-J1010-ER

EDMONTON STEEL, EDMON

A07.2 No.

372163-28.10.10

B01 Product

HOT ROLLED PLATES

3/...

B02 Steel design. SA516-70

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

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

SA20-S5

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 DEGASSED / SULPHIDE SHAPE CONTROL

C95 Further information about ladle treatment

ITEM NO.: 02,05-06

CALCIUM TREATED

C70-C99 Chemical composition % - Product analysis

	B07.1	B07.2	Test No.	C01	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
Heat	B07.1	B07.2	Test No.															
350402	14890	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	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

C94 Product analysis Carbon equivalent / Alloying restrictions

	B07.1	B07.2	Test No.	C01	CA	AL-T	FO-02=	FO-51=	FO-55=
Heat	B07.1	B07.2	Test No.						
350402	14890	14890	K1		0,0002	0,0017	0,38	0,38	0,14
350402	15169	15169	K1		0,0002	0,0015	0,38	0,38	0,13

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



B. BALDAUF
Test House Manager

Inspector's stamp

Date 29.10.10

PP 1

A01

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



DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explanations 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 (MTR)							
A05	Established inspecting body DH	A06 Purchaser Final receiver	EDMONTON STEEL, EDMON EDMONTON STEEL, EDMON	A07.1 No.	ED10551-J1010-ER	B01 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					

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	2012/02/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
	QM-System: Certification as per ISO 9001		
Manufacturer's mark	B. BALDAUF Test House Manager	Inspector's stamp	Date 29.10.10 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 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

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
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 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

QM-System: Certification as per ISO 9001



B. BALDAUF
 Test House Manager

Inspector's stamp

Date 05.11.10

PP

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+AL:1995 + AS PER ISO 10474:1991		372664-05.11.10		359527-001		2/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		EDMONTON STEEL, EDMONTON		EDMONTON STEEL, EDMONTON		SA20-S5	
B02/ Steel design.		SA516-70					
B03 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HUB-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
**	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	

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



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

pp 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		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)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DH	EDMONTON STEEL, EDMON	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			

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	N	351661	34269-02	
02	1	0,7500 X	120,50000 X	480,00000 X	5580 N	N	351661	34269-03	
02	1	0,7500 X	120,50000 X	480,00000 X	5580 N	N	351661	34342-01	
02	1	0,7500 X	120,50000 X	480,00000 X	5580 N	N	351661	34342-02	
02	1	0,7500 X	120,50000 X	480,00000 X	5580 N	N	351661	34342-03	
**	27				150660				
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35146-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35146-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35147-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35147-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35193-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35193-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35239-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35239-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35350-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351658	35350-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351659	34829-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351659	34829-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351659	34831-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351659	34831-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351659	34851-01	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351659	34851-02	
03	1	0,8750 X	120,50000 X	480,00000 X	6510 N	N	351659	34997-01	

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



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



A01

A04



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. ED10553-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 DIL-HUE-2:R30-2010-01-31

SA20-S5

A08/ Manufacturer's order/
A03 Certificate No.

359527-001

A10 Advice of dispatch No./
Date of dispatch

372664-05.11.10

Sheet

4/...

B01 Product

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 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

AHB

B. Baldauf

B. BALDAUF
Test House Manager

Inspector's stamp

Date 05.11.10

PP

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A01

AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection departmentD/H
Manufacturer's mark

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		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		A10 Advice of dispatch No./ Date of dispatch		5/...
MATERIAL TEST REPORT (MTR)		372664-05.11.10		
A05 Established inspecting body		B01 Product		
DH	Final receiver	HOT ROLLED PLATES		
A06 Purchaser				
EDMONTON STEEL, EDMON				
A07.1 No. ED10553-J1010-ER				
A07.2 No.				
EDMONTON STEEL, EDMON				
SA20-S5				
802/ Steel design. SA516-70				
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.	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 Purchase article number
05	1	1,0000	120,50000	X	7440	N	351664	32700-02	351664
05	1	1,0000	120,50000	X	7440	N	351664	32701-01	351664
05	1	1,0000	120,50000	X	7440	N	351664	32701-02	351664
05	1	1,0000	120,50000	X	7440	N	351664	32814-01	351664
05	1	1,0000	120,50000	X	7440	N	351664	32814-02	351664
**	14				104160				
06	1	1,0000	178,00000	X	10991	N	351663	33457-01	351663
07	1	1,1250	97,00000	X	6738	N	351659	34697-01	351659
07	1	1,1250	97,00000	X	6738	N	351659	34764-01	351659
07	1	1,1250	97,00000	X	6738	N	351659	34764-02	351659
07	1	1,1250	97,00000	X	6738	N	351659	34779-01	351659
07	1	1,1250	97,00000	X	6738	N	351659	34780-01	351659
07	1	1,1250	97,00000	X	6738	N	351659	34827-01	351659
07	1	1,1250	97,00000	X	6738	N	351659	34827-02	351659
**	7				47166				
08	1	1,2500	97,00000	X	7487	N	351664	32678-01	351664
09	1	1,2500	121,00000	X	9339	N	351663	33459-01	351663
09	1	1,2500	121,00000	X	9339	N	351663	33460-01	351663
09	1	1,2500	121,00000	X	9339	N	351663	33690-01	351663
09	1	1,2500	121,00000	X	9339	N	351663	33768-01	351663
09	1	1,2500	121,00000	X	9339	N	351663	33771-01	351663
**	5				46695				
***	107				657940				

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	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		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		6/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body DH		A06 Purchaser EDMONTON STEEL, EDMON		A07.1 No. ED10553-J1010-ER		HOT ROLLED PLATES	
Final receiver		EDMONTON STEEL, EDMON		A07.2 No.			
B02/ Steel design. SA516-70				SA20-S5			
B03 Any suppl. ASME-II-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 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 >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)							
C10-C29 Tensile test							
B14 B07.2 Item Heat No. No.		B05 Rol/plate/ Test No.		Reference (heat) treatment		B05	
01 351660 34359		K1 Q		RT		C10 C11	
01 351660 34482		K1 Q		RT		C12 C13	
01 351660 34532		K1 Q		RT		C14 C15	
01 351660 34572		K1 Q		RT		A % LO=8IN	
01 351660 34692		K1 Q		RT		A % LO=2IN	
01 351661 34107		K1 Q		RT		RM	
01 351661 34287		K1 Q		RT		75,0	
01 351661 34331		K1 Q		RT		75,4	
02 351660 34360		K1 Q		RT		75,1	
		K1 Q		RT		75,4	
		K1 Q		RT		75,7	
		K1 Q		RT		74,5	
		K1 Q		RT		74,7	
		K1 Q		RT		74,2	
		K1 Q		RT		74,8	
		K1 Q		RT		26	
		K1 Q		RT		28	
		K1 Q		RT		27	
		K1 Q		RT		27	
		K1 Q		RT		27	
		K1 Q		RT		26	
		K1 Q		RT		26	
		K1 Q		RT		26	
		K1 Q		RT		27	

A04		Z01Z02/203 Via 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	
DH		QM-System: Certification as per ISO 9001		AHB		Inspector's stamp		Date 05.11.10	
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)		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 DH		A07.1 No. ED10553-J1010-ER EDMONTON STEEL, EDMON 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				

C10-C29 Tensile test

B14 B07.2 Item Heat No.	B07.1 Rol./plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01	C03 Temp. GR.F	C10 KSI RP02	C12 RM	C13	A % LO-8IN	A % LO-2IN	C14-C15
02	351660 34479		K1 Q	RT	49,9	75,4		27		
02	351660 34507		K1 Q	RT	50,6	75,4		27		
02	351660 34541		K1 Q	RT	50,9	75,4		27		
02	351660 34646		K1 Q	RT	50,0	75,4		27		
02	351660 34695		K1 Q	RT	50,3	75,3		28		
02	351661 34129		K1 Q	RT	50,0	74,5		27		
02	351661 34269		K1 Q	RT	49,7	75,3		29		
02	351661 34342		K1 Q	RT	49,6	75,1		26		
03	351658 35146		K1 Q	RT	48,0	74,2		27		
03	351658 35147		K1 Q	RT	49,2	74,7		28		
03	351658 35193		K1 Q	RT	48,1	74,5		28		
03	351658 35239		K1 Q	RT	49,2	74,5		29		
03	351658 35350		K1 Q	RT	48,3	74,2		26		
03	351659 34829		K1 Q	RT	49,0	75,0		29		
03	351659 34831		K1 Q	RT	49,3	74,7		27		
03	351659 34851		K1 Q	RT	49,0	74,5		29		
03	351659 34997		K1 Q	RT	49,0	74,4		27		
03	351659 35145		K1 Q	RT	48,7	74,4		27		
04	351658 35403		K1 Q	RT	50,0	74,1		29		
04	351658 35450		K1 Q	RT	49,0	74,4		27		
04	351658 35453		K1 Q	RT	49,4	74,0		28		
04	351658 35458		K1 Q	RT	50,3	75,0		29		
04	351658 35463		K1 Q	RT	50,5	75,1		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	A01	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department
Manufacturer's mark		Inspector's stamp	
		Date 05.11.10	
		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 372664-05.11.10	A08/ Manufacturer's order/ A03 Certificate No. 359527-001	Sheet 8/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMON	A07.1 No. BD10553-J1010-ER		
Final receiver EDMONTON STEEL, EDMON		A07.2 No.		
B02/ Steel design. SA516-70		SA20-S5		
B03 Any suppl. ASME-II-A: 07+A09 requirements DIL-HUB-2:R30-2010-01-31				

C10-C29 Tensile test

B14 B07.2 Item Heat No. No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GRF	C10 C11 KSI RP02	C12 RM	C13	A % LO=8IN	A % LO=2IN	C14-C15
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	

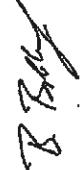
A04	D/H Manufacturer's mark	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001	 E. BALDAUF T... House Manager	AHB	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 05.11.10	PP 1
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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	9/...
MATERIAL TEST REPORT (MTR)				
A06 Established inspecting body	A06 Purchaser	A07.1 No. BD10553-J1010-ER		
DH	Final receiver	EDMONTON STEEL, EDMON		
		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			

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
01	351660	34359		K1	0	RT	HBW 10/3000	HB 149	149
01	351660	34482		K1	0	RT	HBW 10/3000	HB 149	149
01	351660	34532		K1	0	RT	HBW 10/3000	HB 150	150
01	351660	34572		K1	0	RT	HBW 10/3000	HB 150	150
01	351660	34592		K1	0	RT	HBW 10/3000	HB 150	150
01	351661	34107		K1	0	RT	HBW 10/3000	HB 149	149
01	351661	34287		K1	0	RT	HBW 10/3000	HB 150	150
01	351661	34331		K1	0	RT	HBW 10/3000	HB 148	148
02	351660	34360		K1	0	RT	HBW 10/3000	HB 149	149
02	351660	34479		K1	0	RT	HBW 10/3000	HB 150	150
02	351660	34507		K1	0	RT	HBW 10/3000	HB 151	151
02	351660	34541		K1	0	RT	HBW 10/3000	HB 148	148
02	351660	34646		K1	0	RT	HBW 10/3000	HB 149	149
02	351660	34695		K1	0	RT	HBW 10/3000	HB 149	149
02	351661	34129		K1	0	RT	HBW 10/3000	HB 149	149
02	351661	34269		K1	0	RT	HBW 10/3000	HB 149	149
02	351661	34342		K1	0	RT	HBW 10/3000	HB 148	148
03	351658	35146		K1	0	RT	HBW 10/3000	HB 149	149
03	351658	35147		K1	0	RT	HBW 10/3000	HB 150	150
03	351658	35193		K1	0	RT	HBW 10/3000	HB 147	147
03	351658	35239		K1	0	RT	HBW 10/3000	HB 149	149
03	351658	35350		K1	0	RT	HBW 10/3000	HB 148	148
03	351659	34829		K1	0	RT	HBW 10/3000	HB 147	147
03	351659	34831		K1	0	RT	HBW 10/3000	HB 149	150

A04	Z017020203	We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke	A01
				Postfach 1580, D-66748 Dillingen/Saar	
QM-System: Certification as per ISO 9001		B. BALDAUF		Inspection department	
		Test House Manager		Inspector's stamp	PP 1
				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		10/...
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		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 C31 Individual values	C32 Mean value
03	351659	34851		K1	O	RT	HBW 10/3000	HB 148 147	148
03	351659	34997		K1	O	RT	HBW 10/3000	HB 146 146	146
03	351659	35145		K1	O	RT	HBW 10/3000	HB 147 148	147
04	351658	35403		K1	O	RT	HBW 10/3000	HB 149 149	148
04	351658	35450		K1	O	RT	HBW 10/3000	HB 147 148	147
04	351658	35453		K1	O	RT	HBW 10/3000	HB 147 146	146
04	351658	35458		K1	O	RT	HBW 10/3000	HB 149 150	149
04	351658	35463		K1	O	RT	HBW 10/3000	HB 151 151	151
05	351661	33863		K1	O	RT	HBW 10/3000	HB 148 148	148
05	351661	34106		K1	O	RT	HBW 10/3000	HB 148 148	148
05	351664	32679		K1	O	RT	HBW 10/3000	HB 145 145	145
05	351664	32686		K1	O	RT	HBW 10/3000	HB 145 144	145
05	351664	32697		K1	O	RT	HBW 10/3000	HB 147 146	146
05	351664	32700		K1	O	RT	HBW 10/3000	HB 145 145	145
05	351664	32701		K1	O	RT	HBW 10/3000	HB 146 146	146
05	351664	32814		K1	O	RT	HBW 10/3000	HB 145 148	147
06	351663	33457		K1	O	RT	HBW 10/3000	HB 146 145	146
07	351659	34697		K1	O	RT	HBW 10/3000	HB 145 146	145
07	351659	34764		K1	O	RT	HBW 10/3000	HB 146 147	146
07	351659	34779		K1	O	RT	HBW 10/3000	HB 146 146	146
07	351659	34780		K1	O	RT	HBW 10/3000	HB 145 144	145
07	351659	34827		K1	O	RT	HBW 10/3000	HB 145 145	145
08	351664	32678		K1	O	RT	HBW 10/3000	HB 146 145	145
09	351663	33459		K1	O	RT	HBW 10/3000	HB 150 150	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		AHB		B. BALDAUF Test House Manager		
D/H Manufacturer's mark						



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		11/...	
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						SA20-S5	
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 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C30 Method of test	C35 C31 Individual values	C32 Mean value
09	351663	33460		K1	O	RT HBW 10/3000		HB 150 150 149	150
09	351663	33690		K1	O	RT HBW 10/3000		HB 150 148 147	148
09	351663	33768		K1	O	RT HBW 10/3000		HB 148 149 149	149
09	351663	33771		K1	O	RT HBW 10/3000		HB 148 149 148	148

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol. 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	351660	34359		K1	LV	-51	-51	CHP-V			AV 132 130	134
01	351660	34482		K1	LV	-51	-51	CHP-V			AV 140 204	182
01	351660	34532		K1	LV	-51	-51	CHP-V			AV 113 122	115
01	351660	34572		K1	LV	-51	-51	CHP-V			AV 131 209	154
01	351660	34692		K1	LV	-51	-51	CHP-V			AV 163 197	164
01	351661	34107		K1	LV	-51	-51	CHP-V			AV 164 209	192
01	351661	34287		K1	LV	-51	-51	CHP-V			AV 159 122	166
01	351661	34331		K1	LV	-51	-51	CHP-V			AV 209 128	179
02	351660	34360		K1	LV	-51	-51	CHP-V			AV 111 209	137
02	351660	34479		K1	LV	-51	-51	CHP-V			AV 187 196	171
02	351660	34507		K1	LV	-51	-51	CHP-V			AV 197 159	168
02	351660	34541		K1	LV	-51	-51	CHP-V			AV 154 147	169
02	351660	34646		K1	LV	-51	-51	CHP-V			AV 198 130	173
02	351660	34695		K1	LV	-51	-51	CHP-V			AV 110 190	164
02	351661	34129		K1	LV	-51	-51	CHP-V			AV 192 104	146
02	351661	34269		K1	LV	-51	-51	CHP-V			AV 189 96	128
02	351661	34342		K1	LV	-51	-51	CHP-V			AV 171 215	194

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. Baldauf

B. BALDAUF
Test House Manager



AG der Dillinger Hüttenwerke
Postfach 1580, 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		12/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		
DH		Final receiver		EDMONTON STEEL, EDMON		
B02 Steel design.		SA516-70		A07.1 No.		ED10553-J1010-ER
B03 Any suppl.		ASME-II-A:07+A09		A07.2 No.		
requirements		DIL-HUE-2:R30-2010-01-31				

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol. 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	C45 Individual values AV=FT.LBF	C43 Mean value
03	351658	35146		K1	LV	-51		CHP-V				
03	351658	35147		K1	LV	-51		CHP-V			128	147
03	351658	35193		K1	LV	-51		CHP-V			114	149
03	351658	35239		K1	LV	-51		CHP-V			112	114
03	351658	35350		K1	LV	-51		CHP-V			51	134
03	351658	34829		K1	LV	-51		CHP-V			120	192
03	351659	34831		K1	LV	-51		CHP-V			203	147
03	351659	34851		K1	LV	-51		CHP-V			200	149
03	351659	34997		K1	LV	-51		CHP-V			201	162
03	351659	35145		K1	LV	-51		CHP-V			209	153
04	351658	35403		K1	LV	-51		CHP-V			162	166
04	351658	35450		K1	LV	-51		CHP-V			198	174
04	351658	35453		K1	LV	-51		CHP-V			207	190
04	351658	35458		K1	LV	-51		CHP-V			109	124
04	351658	35463		K1	LV	-51		CHP-V			135	133
05	351661	33863		K1	LV	-51		CHP-V			116	118
05	351661	34106		K1	LV	-51		CHP-V			102	111
05	351664	32679		K1	LV	-51		CHP-V			75	102
05	351664	32686		K1	LV	-51		CHP-V			132	138
05	351664	32697		K1	LV	-51		CHP-V			107	143
05	351664	32700		K1	LV	-51		CHP-V			205	171
05	351664	32701		K1	LV	-51		CHP-V			204	208
05	351664	32814		K1	LV	-51		CHP-V			222	151
06	351663	33457		K1	LV	-51		CHP-V			117	119
											116	113
											92	116
											126	154

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		
Manufacturer's mark	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+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

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

SA20-S5

B01 Product

HOT ROLLED PLATES

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.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	C45 C42 Individual values AV=FTLBF	C43 Mean value		
07	351659	34697		K1	LV	-51		CHP-V			AV 100	72	101	91
07	351659	34764		K1	LV	-51		CHP-V			AV 119	87	114	107
07	351659	34779		K1	LV	-51		CHP-V			AV 80	102	184	122
07	351659	34780		K1	LV	-51		CHP-V			AV 92	80	109	94
07	351659	34827		K1	LV	-51		CHP-V			AV 120	128	93	114
08	351664	32678		K1	LV	-51		CHP-V			AV 164	102	102	123
09	351663	33459		K1	LV	-51		CHP-V			AV 128	193	150	157
09	351663	33460		K1	LV	-51		CHP-V			AV 108	136	93	112
09	351663	33690		K1	LV	-51		CHP-V			AV 103	190	111	135
09	351663	33768		K1	LV	-51		CHP-V			AV 116	194	114	141
09	351663	33771		K1	LV	-51		CHP-V			AV 103	115	100	106

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	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



Manufacturer's mark

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. Baldauf

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

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

Final receiver EDMONTON STEEL, EDMON

A07.1 No. ED10553-J1010-ER

A07.2 No. SA20-S5

B02/ Steel design. SA516-70

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

requirements DIL-HUB-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 14/...

B01 Product HOT ROLLED PLATES

C70-C99 Chemical composition % - Heat analysis

B07.2 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
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	FO-02=	0,38	FO-51=	0,000	FO-55=	0,16	FO-78=	0,05	FO-91=	7,1

C95 Ladie treatment

ITEM NO.: 01-09
HEAT OF THE INDICATED ITEM: VACUUM DEGAISED / SULPHIDE SHAPE CONTROL

C95 Further information about ladie treatment

ITEM NO.: 01-09
CALCIUM TREATED

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

AHB

B. BALDAUF
Test House Manager

Inspector's stamp Date 05.11.10 PP 1

D/H
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

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

DH 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

A07.1 No. ED10553-J1010-ER

A07.2 No.

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

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C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
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	0,026	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	0,0012	0,0068	0,032	0,009	0,041	0,026	0,000	0,000	0,001	0,002
351661	34310	K1	0,173	0,372	1,15	0,010	0,0009	0,0070	0,030	0,010	0,039	0,025	0,001	0,000	0,001	0,002
351663	33457	K1	0,169	0,369	1,18	0,011	0,0009	0,0085	0,025	0,016	0,037	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

B07.2 Heat	B07.1 Test No.	B	CA	AL-T
351658	35350	K1	0,0001	0,0012
351658	35463	K1	0,0001	0,0012
351659	34696	K1	0,0001	0,0020
351659	34764	K1	0,0001	0,0019
351659	34851	K1	0,0001	0,0016
351660	34482	K1	0,0000	0,0018
351660	34646	K1	0,0001	0,0020
351661	34106	K1	0,0002	0,0019
351661	34287	K1	0,0001	0,0020

A04 201202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



Manufacturer's mark

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

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

SA20-S5

A10 Advice of dispatch No./
Date of dispatch

372664-05.11.10

A08/ Manufacturer's order/
A09 Certificate No.

359527-001

B01 Product

HOT ROLLED PLATES

Sheet

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C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01			
		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.	C01	
		FO-02=	FO-51=
351658	35350	K1 FO-02= 0,38	FO-51= 0,07
351658	35463	K1 FO-02= 0,38	FO-51= 0,07
351659	34696	K1 FO-02= 0,38	FO-51= 0,11
351659	34764	K1 FO-02= 0,38	FO-51= 0,11
351659	34851	K1 FO-02= 0,37	FO-51= 0,08
351660	34482	K1 FO-02= 0,37	FO-51= 0,09
351660	34646	K1 FO-02= 0,38	FO-51= 0,10
351661	34106	K1 FO-02= 0,38	FO-51= 0,11
351661	34287	K1 FO-02= 0,37	FO-51= 0,11
351661	34310	K1 FO-02= 0,38	FO-51= 0,10
351663	33457	K1 FO-02= 0,38	FO-51= 0,12
351663	33690	K1 FO-02= 0,38	FO-51= 0,12
351664	32678	K1 FO-02= 0,38	FO-51= 0,16
351664	32686	K1 FO-02= 0,37	FO-51= 0,16

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

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

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

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

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

A08 Manufacturer's order/

A03 Certificate No.

359527-001

B01 Product

HOT ROLLED PLATES

372664-05.11.10

A10 Advice of dispatch No./

Date of dispatch

372664-05.11.10

Sheet

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AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

Inspector's stamp

Date 05.11.10

PP 1

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

Manufacturer's mark

AHB

B. BALDAUF

Test House Manager

Inspector's stamp

Date 05.11.10

AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

Inspector's stamp

Date 05.11.10

AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

Inspector's stamp

Date 05.11.10

A01

AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

Inspection department

Inspector's stamp

Date 05.11.10



SHIPPER : HANWA CO., LTD.

注文者 : 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. : 2011-04-06

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 : EDMONTON EXCHANGER GROUP OF C-
CUSTOMER : ONPAINIES

需要家管理番号 : 1001

CUSTOMER'S CONTROL No. : E3001P07Q1 E07

本社 : 〒100-8071 東京都千代田区丸の内二丁目6番1号
HEAD OFFICE : 2-6-1, MARUOUCHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
香港製造所 : 〒299-1141 千葉県君津市君津1番地
KIMITSU WORKS : 1, KIMITSU, KIMITSU-CITY, CHIBA-PREF, 299-1141 JAPAN

証明書番号 : P-13163 PAGE : 62
発行年月日 : 2011-04-06

2***DM*****
*****CEW***

寸法 DIMENSION mm, inch, feet	数量 QUANTITY	質量 MASS KG	製品番号 CAST No. TEST No.	引張試験 TENSILE TEST Y.S. 0.2% K.S.I.	引張試験 TENSILE TEST E.L. %	位置 LOCATION ORIENTATION	衝撃試験 IMPACT TEST 2V - 50F F.L.B. 平均値 個々値	化学成分 CHEMICAL COMPOSITION %											
								C	Si	Mn	P	S	Cr	Ni	Mo	Nb	V	TAI	Co
0.875' X 120.5' X 480'	07	6509	G4224 11505	55	77	29	283 270 282	16	39	145	8	1	2	1	2	0	0	0	0
0.875' X 120.5' X 480'	07	13018	G4224 11505	55	77	29	283 270 282	16	39	145	8	1	2	1	2	0	0	0	0
0.875' X 120.5' X 480'	07	6509	G4224 11505	55	77	30	307 294 283	16	39	145	8	1	2	1	2	0	0	0	0

注 記 NOTES: ※1 位置 Orientation 位置・方向, T: 頂部 Top, B: 底部 Bottom, L: 圧延方向 Longitudinal, C: 他方向 Transverse, Z: 板厚方向 Through Thickness, R: 45° 方向 45Deg. to the Longitudinal Axis

※2 G.L. 標定距離 Gage Length, A: 50mm 平板試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 丸形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 丸形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 80mm 丸形試験片 Round, H: 2', 1', 8', J: 5.65/80, K: 4/50

※3 R.A. : 絞り Reduction of Area, Y.R. : 降伏比 Yield Ratio, ※4 A: 合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 4.3mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 8.67mm, 9: 9.0mm, 10: 10.67mm, 11: 11.67mm, 12: 12.5mm, 13: 13.3mm, 14: 14.3mm, 15: 15.0mm, 16: 16.67mm, 17: 17.5mm, 18: 18.67mm, 19: 19.0mm, 20: 20.67mm, 21: 21.67mm, 22: 22.5mm, 23: 23.3mm, 24: 24.3mm, 25: 25.0mm, 26: 26.67mm, 27: 27.5mm, 28: 28.67mm, 29: 29.0mm, 30: 30.67mm, 31: 31.67mm, 32: 32.5mm, 33: 33.3mm, 34: 34.3mm, 35: 35.0mm, 36: 36.67mm, 37: 37.5mm, 38: 38.67mm, 39: 39.0mm, 40: 40.67mm, 41: 41.67mm, 42: 42.5mm, 43: 43.3mm, 44: 44.3mm, 45: 45.0mm, 46: 46.67mm, 47: 47.5mm, 48: 48.67mm, 49: 49.0mm, 50: 50.67mm, 51: 51.67mm, 52: 52.5mm, 53: 53.3mm, 54: 54.3mm, 55: 55.0mm, 56: 56.67mm, 57: 57.5mm, 58: 58.67mm, 59: 59.0mm, 60: 60.67mm, 61: 61.67mm, 62: 62.5mm, 63: 63.3mm, 64: 64.3mm, 65: 65.0mm, 66: 66.67mm, 67: 67.5mm, 68: 68.67mm, 69: 69.0mm, 70: 70.67mm, 71: 71.67mm, 72: 72.5mm, 73: 73.3mm, 74: 74.3mm, 75: 75.0mm, 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注 文 者 : HANWA CO., LTD.

SHIPPER
注文者照合番号 : 228-38501090

契約番号 : 1-831-H1-5-4-A101

COMMODITY : HOT ROLLED STEEL PLATES

SPECIFICATION : ASME SA-516 GRADE 70-E10

文書番号 :
DOCUMENT No. :

需要家 : EDMONTON EXCHANGER GROUP OF C-
CUSTOMER : COMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL
TESTS 3.1)

需要家管理番号 :
CUSTOMERS CONTROL No. :

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

証明書番号 : P-13163 PAGE : 63
CERTIFICATE No. :

2***DM*****
*****CEW***
E3001P07Q1 E07

新日本製鐵株式会社

Nippon Steel Corporation

鋼材検査証明書

INSPECTION CERTIFICATE

本 社 : 〒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
KIMITSUWORKS : 1, KIMITSU KIMITSU-CITY, CHIBA-PREF, 299-1141 JAPAN

寸 法 DIMENSION mm, 'inch, 'feet	数量 QUAN- TITY	質 量 MASS KG	製鋼番号 CAST No.	製品番号 PLATE No.	引 張 試 験 TENSILE TEST				衝 撃 試 験 IMPACT TEST				化 学 成 分 CHEMICAL COMPOSITION %																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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**PURCHASE ORDER #**

2773

DATE _____

Oct 7, 2011

VENDOR

Exchange

DATE REQUIRED

ASAP

JOB NUMBERS

Stock Heads

VESSEL SER#

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



**PURCHASE ORDER #**

2778

DATE Oct 11, 2011

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

CONTACT	ALL
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DATE REQUIRED	16" 3 Phase Separator
---------------	-----------------------

4901 Bruce Road Vegreville, Alberta T9C 1C3

Phone: (780) 632-7774

[illegible]

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.



12335

Wes Markowsky

DATE _____

FROM PURCHASE ORDER NUMBER

4901 Bruce Road Vegreville, Alberta T9C 1C3

Phone: (780) 632-7774

REMARKS:



PRESSURE TEST RECORD

Date:

Vessel Serial Number:

Vessel Design Pressure:

Hydro Test Pressure:

Temperature:

Test Gauge No.:

Hydro By:

Q.C. Signature:

Print Clearly

Original to be returned to Q.C. on completion of hydro.

W
RT - 2

Certified By

RJV **GAS FIELD**
SERVICES

Vegreville, Alberta
Phone (780)632-7774

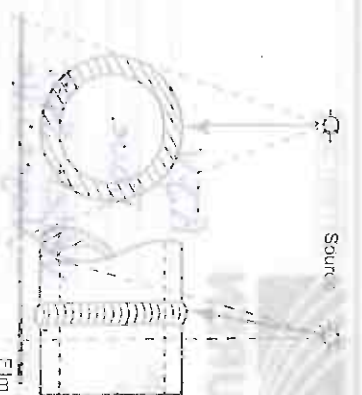
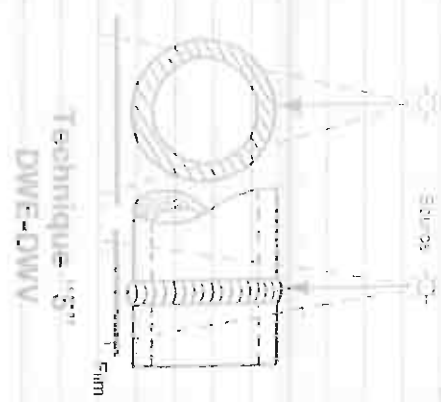
A#612541

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.	SERIAL NO.	
C.R. NUMBER				12335		
P7217.231						
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		WEIGHT		
SHELL MAT'L		Bottom - 20.63 mm		685 Kg.		
HEAD MAT'L		Top- SA-516-70		SIZE		
SA-106-B		Bottom- SA-516-70		406 X 2285		

A#019241

Technique
DWE-DWV

Thank you for contacting us. We will be happy to help you. Please contact us at 1-800-368-2772.

$$k_0 = 1.0$$

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the fact that the acts of Mourner or his estate shall not be held against him by insurance

ALBERTA MUNICIPAL AFFAIRS

ABSA, the pressure equipment safety authority

9410 - 20th Avenue

Edmonton, AB T6N 0A4

Partial/ Partiel ☐

062541

**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 12335	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. minim.	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 amovible 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/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
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Safety Valve Outlets/ Soupapes de sûreté

Number/Nombre	Dimension	Location/Endroit
1	33.4mm	Shell

Nozzles and Openings/ Tubulures et ouvertures

Purpose/But	Number Nombre	Dimension	Type	Material Matériau	Nominal Thickness Épaisseur nominale	Reinforcement material 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/ Oreilles No./ Nbre	Legs/ Pieds No./ Nbre	Other/ Autres (Description)	Attached/ Attaches (Where and How/ Méthode et endroit)
☒ ☐	No	No	N/A	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 **RJV Gasfield Services**

Signature  Date **NOV 10 2011**

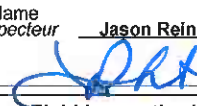
Certificate of Shop Inspection/ Certificat d'inspection en usine

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) **Albarta**

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  Date **NOV 10 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 **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 _____