Travel Sheet

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

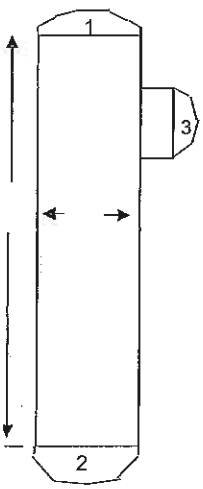
"A"-Hold Point, "I"- Inspection Point, "R"-Revision, "W"- Witness Point

Hold Points established - Sign & Date OCT 20/11 (Authorized Inspector)

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

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

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



		SPECIFICATIONS	HEAT NUMBER	VERIFIED THICKNESS
SHELL	C1	SA-106-B	6304294	21.44mm
HEADS	1	SA-516-70	JK566052-A084057-2	20.63mm.
	2	SA-516-70	351658-35146	20.63mm.
	3			
REPADS	1			
	2			
	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

CERTIFICATE NO.: BSC001/2006

SHIPPER:
Baotou Steel International Economic and Trading Co., Ltd.

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

TOTAL QUANTITY:
482.722MT

PURCHASER:
Eldon Development Ltd.(LAI WU GROUP)
42/F., Office Tower, Convention Plaza, 1 Harbour Road,
Wanchai, Hong Kong

无缝钢管质量证明书
QUALITY AND TEST CERTIFICATE
ORIGINAL
16"×.844" wall

PACKING:
Binding together three pieces per bundle

DESCRIPTION OF GOODS:
CARBON SEAMLESS PIPE
UNDER CONTRACT NO.2006BGEL01
(1)16" O.D. X0.844" W.T.X7.5FT
(2)16" O.D. X0.844" W.T.X LESS THAN7.5FT

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

Heat No.	Specification		Quantity		Chemical Compositions(%)										Mechanical Properties		
	O.D.(in.)	W.T.(in.)	Meters	Tons	C	MN	S	P	SI	CR	CU	MO	NI	V	TS (Mpa)	YS (Mpa)	EL (%)
6204801	16	0.844	225.06	45.806	0.200	0.550	0.016	0.011	0.270	0.036	0.008	0.005	0.008	0.005	480	240	33
6104585	16	0.844	293.31	59.697	0.180	0.530	0.015	0.019	0.270	0.019	0.008	0.005	0.008	0.005	515	325	28
6601454	16	0.844	355.3	72.314	0.190	0.540	0.007	0.012	0.260	0.018	0.008	0.005	0.009	0.005	505	300	27.5
6704635	16	0.844	446.73	90.923	0.230	0.500	0.007	0.017	0.240	0.015	0.005	0.005	0.009	0.005	510	340	28
6304294	16	0.844	296.23	60.292	0.230	0.560	0.004	0.016	0.300	0.022	0.010	0.005	0.009	0.005	510	325	27.5
6704637	16	0.844	377.88	76.910	0.210	0.520	0.006	0.019	0.300	0.010	0.005	0.005	0.009	0.005	510	340	28
6304295	16	0.844	377.24	76.780	0.180	0.530	0.009	0.014	0.260	0.024	0.009	0.005	0.016	0.005	480	260	30.5
			2371.75	482.722													

Technical Testing						
Dimension Check	Surface Quality	Hydrostatic	Flattening Test	Bending Test	Rolling process	Eddy Current Test
OK	OK	5.8 (Mpa)	OK	OK	Hot rolling	OK

Conclusion: The above mentioned material have been made in accordance with ASTM A106 B-2004
Ispector:
Date: Sept, 2006

NOV 22 2006

CERTIFICATE OF COMPLIANCE

edmonton exchanger
& manufacturing ltd.

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

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 _____
Conforms to
ASME Section II

2010 Edition

OCT 14 2011 Date

edmonton exchanger
& manufacturing ltd.

5545-89 Street Edmonton, Alberta Canada T6E 5W9 www.edmontonexchanger.com tel 780.468.6722 • QC fax 780.466.4868 • sales fax 780.466.5155

CERTIFICATE OF COMPLIANCE

Customer RJV GASFIELD LTD. PO 2773 Work Order C91469 Date 2011/10/14 CofC# 28015

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

Brinell Equipment: Newage Calibrated Pin
Brinell Hardness Tester

Supplementary Requirements

Normalized Material Identification Marking:
'MT' indicates normalized by the mill per ASME Code Section II, Part A, SA 20, Paragraph 13.1.1.
'GMT' indicates normalized by Edmonton Exchanger per ASME Code Section II, Part A, SA 20, Paragraph 13.1.2.
'GT' indicates normalized by Edmonton Exchanger per ASME Code Section VIII Division 1, UG-85 or ASME Code Section I, PG-77.4.

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

Supplementary Examination - Items

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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 Sheet: 1/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 61056

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10408-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

13040

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A03 Purchaser article number
			INCH						
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15577-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15578-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15580-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15585-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15586-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15588-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290115	15589-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15532-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15555-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15558-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15559-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15561-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15562-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15563-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15565-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15566-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15568-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15569-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15571-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15572-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000	6510	N	290117	15574-01	ITEM 1
**	21				136710				
02	1	1,1250 x	97,00000 x	480,00000	6738	N	290119	15480-01	ITEM 2

A04 Manufacturer's mark: D H

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: A H B

Date 22.01.07 KW 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
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

Sheet: 2/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 61056

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10408-J1010-LG

B01 Product: HOT ROLLED PLATES

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	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						
02	1	1,1250 x	97,00000 x	480,00000	6738	N	290119	15481-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000	6738	N	290119	15482-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000	6738	N	290119	15483-01	ITEM 2
02	1	1,1250 x	97,00000 x	480,00000	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.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13	C14-C15 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 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. MUELLER
Test House Manager

Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

Sheet: 3/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 61056

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10408-J1010-LG

B01 Product: HOT ROLLED PLATES

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 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13	A % L0=8IN	C14-C15 A % L0=2IN
01	290115	15585		K1	Q	RT		48,7	72,5		29,9	
01	290115	15586		K1	Q	RT		49,9	72,9		31,4	
01	290115	15588		K1	Q	RT		49,4	72,9		30,4	
01	290115	15589		K1	Q	RT		50,0	72,8		30,4	
01	290117	15532		K1	Q	RT		50,0	73,7		30,9	
01	290117	15555		K1	Q	RT		49,6	74,1		29,4	
01	290117	15558		K1	Q	RT		49,2	72,8		31,9	
01	290117	15559		K1	Q	RT		50,2	73,1		30,9	
01	290117	15561		K1	Q	RT		49,7	74,0		28,0	
01	290117	15562		K1	Q	RT		49,6	73,1		38,3	
01	290117	15563		K1	Q	RT		49,2	73,8		27,5	
01	290117	15565		K1	Q	RT		50,9	74,0		31,9	
01	290117	15566		K1	Q	RT		48,6	73,2		29,4	
01	290117	15568		K1	Q	RT		48,7	72,5		31,4	
01	290117	15569		K1	Q	RT		50,2	72,6		29,9	
01	290117	15571		K1	Q	RT		49,7	72,8		28,9	
01	290117	15572		K1	Q	RT		50,6	73,4		28,4	
01	290117	15574		K1	Q	RT		49,4	73,2		30,9	
02	290119	15480		K1	Q	RT		49,6	72,9		31,9	
02	290119	15481		K1	Q	RT		49,6	73,4		31,9	
02	290119	15482		K1	Q	RT		50,6	73,5		29,9	
02	290119	15483		K1	Q	RT		49,9	73,8		29,9	
02	290119	15484		K1	QV	RT		50,3	74,8			33,9

A04 Manufacturer's mark: D H

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: A H B

Date 22.01.07 KW 3

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
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 Sheet: 4/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 61056

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10408-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

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. GR.F	C33 Testing method	C35	C31 Individual values			C32 Average value
01	290115	15577		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	290115	15578		K1	O	RT	HBW 10/3000	HB	143	149	143	145
01	290115	15580		K1	O	RT	HBW 10/3000	HB	141	141	139	140
01	290115	15585		K1	O	RT	HBW 10/3000	HB	143	141	140	141
01	290115	15586		K1	O	RT	HBW 10/3000	HB	142	144	141	142
01	290115	15588		K1	O	RT	HBW 10/3000	HB	146	143	143	144
01	290115	15589		K1	O	RT	HBW 10/3000	HB	144	143	143	143
01	290117	15532		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	290117	15555		K1	O	RT	HBW 10/3000	HB	143	142	141	142
01	290117	15558		K1	O	RT	HBW 10/3000	HB	145	143	142	143
01	290117	15559		K1	O	RT	HBW 10/3000	HB	143	142	140	142
01	290117	15561		K1	O	RT	HBW 10/3000	HB	142	140	140	141
01	290117	15562		K1	O	RT	HBW 10/3000	HB	145	143	144	144
01	290117	15563		K1	O	RT	HBW 10/3000	HB	142	143	140	142
01	290117	15565		K1	O	RT	HBW 10/3000	HB	145	143	145	144
01	290117	15566		K1	O	RT	HBW 10/3000	HB	144	143	142	143
01	290117	15568		K1	O	RT	HBW 10/3000	HB	142	142	140	141
01	290117	15569		K1	O	RT	HBW 10/3000	HB	149	149	143	147
01	290117	15571		K1	O	RT	HBW 10/3000	HB	149	149	143	147
01	290117	15572		K1	O	RT	HBW 10/3000	HB	140	141	139	140
01	290117	15574		K1	O	RT	HBW 10/3000	HB	144	143	145	144
02	290119	15480		K1	O	RT	HBW 10/3000	HB	147	145	146	146
02	290119	15481		K1	O	RT	HBW 10/3000	HB	143	141	145	143
02	290119	15482		K1	O	RT	HBW 10/3000	HB	142	143	145	143

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

B. MUELLER
Test House Manager

AHB Inspector's stamp

Date 22.01.07 KW 1

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/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 Sheet: 5/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 61056

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10408-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

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. GR.F	C33 Testing method	C35	C31 Individual values			C32 Average value
02	290119	15483		K1	O	RT	HBW 10/3000	HB	146	145	145	145
02	290119	15484		K1	O	RT	HBW 10/3000	HB	145	142	140	142

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=FT.LBF			C43 Average value
01	290115	15577		K1	LV	-51		CHP-V			AV	142	156	90	129
01	290115	15578		K1	LV	-51		CHP-V			AV	204	134	146	161
01	290115	15580		K1	LV	-51		CHP-V			AV	138	123	205	155
01	290115	15585		K1	LV	-51		CHP-V			AV	231	119	119	156
01	290115	15586		K1	LV	-51		CHP-V			AV	196	191	113	167
01	290115	15588		K1	LV	-51		CHP-V			AV	142	195	139	159
01	290115	15589		K1	LV	-51		CHP-V			AV	157	170	163	163
01	290117	15532		K1	LV	-51		CHP-V			AV	161	150	196	169
01	290117	15555		K1	LV	-51		CHP-V			AV	104	115	129	116
01	290117	15558		K1	LV	-51		CHP-V			AV	122	152	212	162
01	290117	15559		K1	LV	-51		CHP-V			AV	121	111	201	144
01	290117	15561		K1	LV	-51		CHP-V			AV	124	129	132	128
01	290117	15562		K1	LV	-51		CHP-V			AV	104	89	114	102
01	290117	15563		K1	LV	-51		CHP-V			AV	137	122	122	127
01	290117	15565		K1	LV	-51		CHP-V			AV	75	189	159	141
01	290117	15566		K1	LV	-51		CHP-V			AV	134	199	84	139
01	290117	15568		K1	LV	-51		CHP-V			AV	128	114	125	122
01	290117	15569		K1	LV	-51		CHP-V			AV	176	189	128	164
01	290117	15571		K1	LV	-51		CHP-V			AV	147	132	93	124

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

B. MUELLER
Test House Manager

A H B Inspector's stamp

Date 22.01.07 KW 1

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/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/ A03 Manufacturer's order/ Certificate No.: 315779-002 Sheet: 6/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 61056

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10408-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 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=FT.LBF			C43 Average value
01	290117	15572		K1	LV	-51		CHP-V			AV	121	129	114	121
01	290117	15574		K1	LV	-51		CHP-V			AV	128	167	119	138
02	290119	15480		K1	LV	-51		CHP-V			AV	170	115	72	119
02	290119	15481		K1	LV	-51		CHP-V			AV	117	113	126	119
02	290119	15482		K1	LV	-51		CHP-V			AV	153	198	134	162
02	290119	15483		K1	LV	-51		CHP-V			AV	121	138	201	153
02	290119	15484		K1	LV	-51		CHP-V			AV	151	145	156	151

C70-C99 Chemical composition % - Heat analysis

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

B07.2 Heat	C70	TI	B
290115	Y	0,003	0,0001
290117	Y	0,003	0,0001
290119	Y	0,003	0,0001

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat								
290115	FO-02=	0,38	FO-55=	0,07	FO-78=	0,03	FO-91=	6,7
290117	FO-02=	0,38	FO-55=	0,16	FO-78=	0,04	FO-91=	6,5
290119	FO-02=	0,38	FO-55=	0,11	FO-78=	0,05	FO-91=	6,8

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. MUELLER
Test House Manager

Inspector's stamp

Date 22.01.07 KW 1

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

DILLINGER HÜTTE

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/ A03 Manufacturer's order/ Certificate No.: 315779-002

Sheet: 7/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 61056

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10408-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

C95 Ladle treatment

ITEM NO.: 01-02
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
290115	15578	K1	0,170	0,345	1,14	0,009	0,0009	0,0051	0,031	0,015	0,004	0,019	0,024	0,000	0,000	0,000
290117	15569	K1	0,172	0,347	1,13	0,008	0,0010	0,0055	0,037	0,041	0,006	0,061	0,032	0,000	0,000	0,000
290119	15483	K1	0,168	0,354	1,16	0,009	0,0009	0,0070	0,030	0,021	0,019	0,032	0,031	0,000	0,000	0,000

B07.2 Heat	B07.1 Test No.	C01	TI	B
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

B07.2 Heat	B07.1 Test No.	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

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

B. MUELLER
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 22.01.07 KW 1

DILLINGER HÜTTE

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

A02	A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
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)	242156-20.01.07	315779-002	8

A05 Established inspecting body	A06 Purchaser / Final receiver	A07.1 No. / A07.2 No.	B01 Product
DH	ARCELOR CANADA,BURLI EDMONTON STEEL,EDMON	61056 E10408-J1010-LG	HOT ROLLED PLATES

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

MTR APPROVED EDMONTON EXCHANGER

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. MUELLER
Test House Manager

Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001 Sheet: 1/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

13727

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
			INCH						
01	1	0,7500 x	120,50000 x	480,00000	5580	N	292660	89773-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20557-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20557-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20558-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20558-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20558-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20560-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20560-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20560-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30527-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30527-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30527-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30528-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30528-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30528-03	ITEM 1
**	15				83700				
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20452-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20452-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20452-03	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20618-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20618-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20619-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20619-02	ITEM 2

A04 Manufacturer's mark: D H

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 13.07.07 KW 1

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DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001 Sheet: 2/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

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	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						
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297680	92858-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297680	92858-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297680	92858-03	ITEM 2
**	10				52140				
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20544-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20544-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20544-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20550-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20550-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20550-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20551-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20551-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20551-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20552-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20552-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20552-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20553-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20553-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20553-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20554-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20554-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20554-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20555-01	ITEM 3

A04 Manufacturer's mark: D H

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: AHB

Date 12.07.07 KW 1

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ A03 Manufacturer's order/ Certificate No.: 321444-001

Sheet: 3/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-EUE-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 KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
			INCH						
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20555-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20555-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20556-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20556-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20556-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297060	20453-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297060	20453-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297060	20453-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297060	20526-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297060	20526-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297060	20526-03	ITEM 3
**	30				195300				
***	55				331140				

B04 Product delivery condition

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

B06 Marking of the product

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

A04 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. MUELLER
Test House Manager

Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 4/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receivor: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

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 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13	C14-C15 A % LO=8IN
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 Manufacturer's mark: DH

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

AHB
Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ A03 Manufacturer's order/ Certificate No.: 321444-001

Sheet: 5/...

A05 Established inspecting body: DB

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

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. GR.F	C33 Testing method	C35	C31 Individual values			C32 Mean value
01	292660	89773		K1	O	RT	HBW 10/3000	HB	145	146	145	145
01	297056	20557		K1	O	RT	HBW 10/3000	HB	147	147	146	147
01	297056	20558		K1	O	RT	HBW 10/3000	HB	146	148	149	148
01	297056	20560		K1	O	RT	HBW 10/3000	HB	147	148	148	148
01	297067	30527		K1	O	RT	HBW 10/3000	HB	150	149	146	148
01	297067	30528		K1	O	RT	HBW 10/3000	HB	145	145	145	145
02	297060	20452		K1	O	RT	HBW 10/3000	HB	148	146	149	148
02	297060	20618		K1	O	RT	HBW 10/3000	HB	148	148	147	148
02	297060	20619		K1	O	RT	HBW 10/3000	HB	151	150	152	151
02	297680	92858		K1	O	RT	HBW 10/3000	HB	142	143	146	144
03	297059	20544		K1	O	RT	HBW 10/3000	HB	151	149	147	149
03	297059	20550		K1	O	RT	HBW 10/3000	HB	147	149	146	147
03	297059	20551		K1	O	RT	HBW 10/3000	HB	149	150	148	149
03	297059	20552		K1	O	RT	HBW 10/3000	HB	148	148	146	147
03	297059	20553		K1	O	RT	HBW 10/3000	HB	148	150	146	148
03	297059	20554		K1	O	RT	HBW 10/3000	HB	148	148	146	147
03	297059	20555		K1	O	RT	HBW 10/3000	HB	150	148	147	148
03	297059	20556		K1	O	RT	HBW 10/3000	HB	148	147	148	148
03	297060	20453		K1	O	RT	HBW 10/3000	HB	149	146	148	148
03	297060	20526		K1	O	RT	HBW 10/3000	HB	148	150	149	149

A04 Manufacturer's mark: D H

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: A H B

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 6/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 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=FT.LBF			C43 Mean value
01	292660	89773		K1	LV	-51		CHP-V			AV	96	118	202	139
01	297056	20557		K1	LV	-51		CHP-V			AV	99	109	114	107
01	297056	20558		K1	LV	-51		CHP-V			AV	115	118	179	137
01	297056	20560		K1	LV	-51		CHP-V			AV	114	119	122	118
01	297067	30527		K1	LV	-51		CHP-V			AV	135	108	98	114
01	297067	30528		K1	LV	-51		CHP-V			AV	180	184	182	182
02	297060	20452		K1	LV	-51		CHP-V			AV	73	105	117	98
02	297060	20618		K1	LV	-51		CHP-V			AV	150	145	148	148
02	297060	20619		K1	LV	-51		CHP-V			AV	131	111	126	123
02	297680	92858		K1	LV	-51		CHP-V			AV	86	117	169	124
03	297059	20544		K1	LV	-51		CHP-V			AV	131	128	149	136
03	297059	20550		K1	LV	-51		CHP-V			AV	128	107	110	115
03	297059	20551		K1	LV	-51		CHP-V			AV	111	133	89	111
03	297059	20552		K1	LV	-51		CHP-V			AV	184	137	115	145
03	297059	20553		K1	LV	-51		CHP-V			AV	95	182	134	137
03	297059	20554		K1	LV	-51		CHP-V			AV	93	181	115	130
03	297059	20555		K1	LV	-51		CHP-V			AV	126	136	100	121
03	297059	20556		K1	LV	-51		CHP-V			AV	97	90	181	123
03	297060	20453		K1	LV	-51		CHP-V			AV	193	187	147	176
03	297060	20526		K1	LV	-51		CHP-V			AV	97	145	159	134

A04 Manufacturer's mark: D H

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

A H B
Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ A03 Manufacturer's order/ Certificate No.: 321444-001 Sheet: 7/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70

B03 Any suppl. requirements ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

C70-C99 Chemical composition % - Heat analysis

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

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

C94 Heat analysis Carbon equivalent / Alloying restrictions

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

A04 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

B. MUELLER
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 8/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

C95 Ladle treatment

ITEM NO.: 01-03
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
292660	89773	K1	0,172	0,362	1,17	0,007	0,0005	0,0048	0,049	0,027	0,011	0,047	0,026	0,001	0,000	0,001
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.	C01	TI	B
292660	89773	K1	0,002	0,0002
297056	20560	K1	0,003	0,0003
297059	20553	K1	0,002	0,0000
297060	20618	K1	0,003	0,0000
297067	30528	K1	0,002	0,0001
297680	92858	K1	0,002	0,0000

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01				
292660	89773	K1	FO-02=	0,38	FO-55=	0,11
297056	20560	K1	FO-02=	0,38	FO-55=	0,10
297059	20553	K1	FO-02=	0,39	FO-55=	0,09
297060	20618	K1	FO-02=	0,39	FO-55=	0,10

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

B. MUELLER
Test House Manager

AHB Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 9

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: 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

MTR APPROVED EDMONTON EXCHANGER

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

B. MUELLER
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

No.10040967

QR/C07E05

收货单位：
CUSTOMER：
ORDER NO.8155-V

合同编号：
CONTRACT No.：
07WYWCV-54

技术条件：
TECHNICAL CONDITION：

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

质量证明书
QUALITY CERTIFICATE

地址：中国河南舞钢 ADDRESS:WUGANG HENAN CHINA
邮编:462500 ZIPCODE:462500
电话(Tel):0375-8111264
传真(Fax):0375-8111269

证明书号：
CERTIFICATE NO.：07K3439

许可证号：
EXEQUATUR NO.：

车号：
TRAIN NO.：

14028

ASTM A516 Gr.70/ASME A516 Gr.70 (EDITION 2001+2003A)

钢号 STEEL GRADE	炉号 HEAT NO.	批号 BATCH NO.	尺寸 DIMENSIONS Inches	块数 PCS	重量 WEIGHT MT	化学成份 0.001% CHEMICAL COMPOSITION C	Si	Mn	P	S	Cr	Al	Mo	Ti	Cu	Nb	Ni	V	N	B	Ceq	拉力试验 TENSILE Re (Ksi)	Rm (Ksi)	A %	弯曲试验 BEND TEST 结果	方向	角度	冲击试验 IMPACT 下	值 lbf	方向	超声波试验 ULTRASONIC TEST	硬度 Hardness HB
A516Gr.70/SA516Gr.70	7204628N	CA724877	0.875*96.500*480.000	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	131 152 141	横	ASTM A435 PASS	0
A516Gr.70/SA516Gr.70	7205648N	CA727726	0.875*96.500*480.000	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 95 104	横	ASTM A435 PASS	0
A516Gr.70/SA516Gr.70	7206179N	CA729348	0.875*96.500*480.000	1	5.214	160	310	1100	9	3	80	24	22	3	90	1	210	4	4.9	0.4		53	75	36.0 (A200)				-50.8	128 114 100	横	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.Q. 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, NORMALISED, WITH CHARPY V-NOTCH TEST TO A20 CAT.IV. -50F CHARPY V NOTCH IMPACT TEST HAS BEEN PERFORMED AND PROVIDED FOR REFERENCE ONLY. 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.INVOICING ON NOMINAL THEORETICAL WEIGHT OF 7.85 KGS/DM3. 6.COLOR CODE: YELLOW/WHITE/YELLOW COLOR STRIPE CODE. 7.INFORMATION ON STEEL PLATE NORMALISING CYCLE: (1).SOAKING TEMPERATURE: 900°C +/-10°C. (2).SOAKING TIME: 1.5MINUTES/MM. (3).COOLING MEANS: AIR COOLING. 8.QUALITY CERTIFICATE ISSUED AS PER EN10204/3.1B.Sn:4

Quality certificate according to EN 10204:2004/3.1

质检负责人：PERSON - IN - CHARGE OF QUALITY EXAMINATION： 吴永斌

判定员：QUALITY CONTROL INSPECTOR： 武发宇

审核员：QUALITY CONTROL CHECKER： 尚玲

签证章：SEAL OF CERTIFICATE

日期：DATE： 12MONTH 12DAY 20YEAR

注：1.本质量证明书无产品质量证明专用章无效。
2.证书复印件无效，涂改处必须加盖判定员专用章。

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 special seal of quality control inspector.

MTR APPROVED EDMONTON EXCHANGER

舞阳钢铁有限责任公司

WUYANG IRON AND STEEL CO., LTD

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

TO:	Wirth Steel Shanghai	E-mail:	wgleco66@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL:	0086-375-8111899
FAX:	021-64153908	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

Authorised signature(s)

MTR APPROVED
EDMONTON EXCHANGER

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:	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

Authorised signature(s)

No.10040965

QR/C07E05

收 货 单 位：
CUSTOMER ：ORDER NO.8155-V

合 同 编 号：
CONTRACT No.：07WYWCV-54

技 术 条 件：
TECHNICAL CONDITION：ASTM A516 Gr.70/ASME A516 Gr.70 (EDITION 2001+2003A)

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

质 量 证 明 书
QUALITY CERTIFICATE

地 址：中国河南舞钢 邮 编：462500 电话(Tel)：0375-8111264
ADDRESS: WUGANG HENAN CHINA ZIPCODE：462500 传真(Fax)：0375-8111269

证 明 书 号：
CERTIFICATE NO.：07K3437

许 可 证 号：
EXEQUATUR NO.：

车 号：
TRAIN NO.：

14030

钢号 STEEL GRADE	炉号 HEAT NO.	批号 BATCH NO.	尺寸 DIMENSIONS Inches	块数 PCS	重量 WEIGHT MT	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 Hardness HB
						C	Si	Mn	P	S	Cr	Al	Mo	Ti	Cu	Nb	Ni	V	N	B	Ceq	Re (Ksi)	Rm (Ksi)	A %	结果	方向	角度	下	功 J&f	方向		
A516Gr.70/SA516Gr.70	7204842N	CA723361	0.875*96.500*480.000	2	10.428	190	250	1110	11	3	60	44	19	2	80	14	160	3	4.8	0.2		59	78	34.0 (A50)				-50.8	207 194 103	横	ASTM A435 PASS	C
A516Gr.70/SA516Gr.70	7204647N	CA727538	0.750*120.500*480.000	1	5.58	160	300	1110	7	3	50	42	19	2	80	2	210	3	5.0	0.1		56	75	24.0 (A20 0)				-50.8	184 129 136	横	ASTM A435 PASS	C
			以 下 空 白																											

合计：TOTAL： 3 块 PCS 16.008 吨 MT

试样状态：CONDITION OF TEST PIECE：

供货状态：CONDITION OF SUPPLY：正火 NORMALIZED

LOT:

备注：Notes: 1. PRIME QUALITY, NEWLY PRODUCED, HOT ROLLED KILLED STEEL P.V.Q. 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, NORMALISED, WITH CHARPY V-NOTCH TEST TO A20 CAT.IV. -50# CHARPY V NOTCH IMPACT TEST HAS BEEN PERFORMED AND PROVIDED FOR REFERENCE ONLY. 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. INVOICING ON NOMINAL THEORETICAL WEIGHT OF 7.85 KGS/DM3. 6. COLOR CODE: YELLOW/WHITE/YELLOW COLOR STRIPE CODE. 7. INFORMATION ON STEEL PLATE NORMALISING CYCLE： (1). SOAKING TEMPERATURE: 900°C +/-10°C. (2). SOAKING TIME: 1.5MINUTES/MM. (3). COOLING MEANS: AIR COOLING. 8. QUALITY CERTIFICATE ISSUED AS PER EN10204/3.1B. Sn:5

Quality certificate according to EN 10204:2004/3.1

质量检验负责人：
PERSON - IN - CHARGE OF QUALITY EXAMINATION：吴永斌

判 定 员：
QUALITY CONTROL INSPECTOR：武发宇

审 核 员：
QUALITY CONTROL CHECKER：尚 玲

SEAL OF CERTIFICATE

日期：DATE：月 MONTH 日 DAY 年 2008AR

注：1. 本质量证明书无产品质量检验专用章无效。
2. 证书复印件无效，涂改处必须加盖判定员专用章。

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 special seal of quality control inspector.

MTR APPROVED EDMONTON EXCHANGER

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:	0086-376-8112634
DATE:	February 12, 2008	PAGE:	1/1

RE: Certificate for PO#8155-V

CERTIFICATION

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

Wuyang Iron And Steel Co., Ltd.

February 12, 2008

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

Authorised signature(s)

MTR APPROVED
EDMONTON EXCHANGER

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:	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

Authorised 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
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: 1/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10547-J1010-ER

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

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

15459

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
			INCH						
02	1	0,7500 x	150,00000 x	480,00000	6946	N	344392	72568-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	344657	76977-01	
05	1	1,0000 x	96,50000 x	480,00000	5959	N	344650	04162-01	
06	1	1,0000 x	178,00000 x	356,00000	8152	N	343716	58575-01	
06	1	1,0000 x	178,00000 x	356,00000	8152	N	343716	58576-01	
06	1	1,0000 x	178,00000 x	356,00000	8152	N	343716	58576-02	
**	3				24456				
09	1	1,2500 x	121,00000 x	480,00000	9339	N	343972	39374-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	344390	72572-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	344390	72572-02	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	344390	72572-03	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	344390	72573-01	
09	1	1,2500 x	121,00000 x	480,00000	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 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

DR. CH. DILG
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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.
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: 2/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10547-J1010-ER

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

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

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 >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile 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	C10 C11 KSI RP02	C12 RM	C13	C14-C15 A % L0=8IN	C14-C15 A % L0=2IN
02	344392	72568		K1	Q	RT	50,3	76,0		26	
03	344657	76977		K1	Q	RT	52,3	75,3			42
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 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C35 C31 Individual values			C32 Mean value
02	344392	72568		K1	O	RT	HBW 10/3000	HB 148	149	148	148
03	344657	76977		K1	O	RT	HBW 10/3000	HB 137	143	143	141
05	344650	04162		K1	O	RT	HBW 10/3000	HB 144	147	148	146

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

DR. CH. DILG
Test House Manager

AHB Inspector's stamp

Date 08.04.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 356925-08.04.10

A08/ Manufacturer's order/ A03 Certificate No.: 353891-002 Sheet 3/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10547-J1010-ER

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

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

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. GR.F	C33 Testing method	C35 C51 Individual values			C32 Mean value
06	343716	58575		K1	O	RT	HBW 10/3000	HB 145	145	148	146
06	343716	58576		K1	O	RT	HBW 10/3000	HB 144	145	149	146
09	343972	39374		K1	O	RT	HBW 10/3000	HB 146	146	145	146
09	344390	72572		K1	O	RT	HBW 10/3000	HB 142	146	145	144
09	344390	72573		K1	O	RT	HBW 10/3000	HB 143	142	143	143

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=FT.LBF			C43 Mean value
02	344392	72568		K1	LV	-51		CHP-V			AV 99	136	86	107
03	344657	76977		K1	LV	-51		CHP-V			AV 157	194	188	180
05	344650	04162		K1	LV	-51		CHP-V			AV 201	126	123	150
06	343716	58575		K1	LV	-51		CHP-V			AV 198	159	191	183
06	343716	58576		K1	LV	-51		CHP-V			AV 112	209	117	146
09	343972	39374		K1	LV	-51		CHP-V			AV 114	108	80	101
09	344390	72572		K1	LV	-51		CHP-V			AV 97	105	131	111
09	344390	72573		K1	LV	-51		CHP-V			AV 100	128	114	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	0,183	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

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

DR. CH. DILG
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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
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: 4/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10547-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:07+A09
DIL-HUR-2:R30-2010-01-31

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
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	C70	B	CA	AL-T
343716	Y	0,0002	0,0007	0,032
343972	Y	0,0001	0,0009	0,045
344390	Y	0,0002	0,0031	0,045
344392	Y	0,0002	0,0016	0,034
344650	Y	0,0001	0,0020	0,027
344657	Y	0,0001	0,0016	0,027

C94 Heat analysis Carbon equivalent / Alloying restrictions

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

C95 Ladle treatment

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

A04 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

Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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
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: 5/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10547-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements: ASME-II-A:07+A09
DIL-HUR-2:R30-2010-01-31

C95 Further information about ladle treatment

ITEM NO.: 01-03,05-06,08-09
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
343716	58576	K1	0,177	0,382	1,19	0,011	0,0004	0,0074	0,017	0,004	0,025	0,029	0,001	0,000	0,001	0,002
343972	39374	K1	0,183	0,386	1,18	0,008	0,0009	0,0062	0,025	0,007	0,029	0,039	0,000	0,000	0,000	0,002
344390	72572	K1	0,171	0,383	1,18	0,007	0,0017	0,0062	0,025	0,005	0,038	0,028	0,000	0,000	0,001	0,002
344392	72567	K1	0,178	0,371	1,16	0,009	0,0008	0,0066	0,022	0,018	0,037	0,034	0,000	0,000	0,001	0,002
344392	72568	K1	0,175	0,369	1,16	0,008	0,0009	0,0067	0,023	0,014	0,036	0,030	0,000	0,000	0,000	0,002
344392	72570	K1	0,176	0,376	1,17	0,008	0,0010	0,0067	0,023	0,015	0,038	0,030	0,000	0,001	0,001	0,002
344650	04162	K1	0,167	0,407	1,15	0,008	0,0012	0,0068	0,020	0,009	0,029	0,034	0,000	0,000	0,001	0,002
344657	76977	K1	0,172	0,405	1,17	0,009	0,0009	0,0056	0,028	0,019	0,035	0,028	0,000	0,000	0,001	0,002

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
343716	58576	K1	0,0002	0,0010	0,032
343972	39374	K1	0,0001	0,0010	0,048
344390	72572	K1	0,0001	0,0029	0,045
344392	72567	K1	0,0001	0,0017	0,033
344392	72568	K1	0,0001	0,0017	0,036
344392	72570	K1	0,0001	0,0018	0,035
344650	04162	K1	0,0002	0,0036	0,029
344657	76977	K1	0,0000	0,0035	0,028

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

DR. CH. DILG
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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
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/ A03 Manufacturer's order/ Certificate No.: 353891-002 Sheet: 6

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10547-J1010-ER

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

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 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

MTR APPROVED EDMONTON EXCHANGER

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

DR. CH. DILG
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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
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: 1/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

15711

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
			INCH						
01	1	0,6250 x	120,50000 x	480,00000	4650	N	348840	11315-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350041	63961-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350041	63961-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	17648-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	17648-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	17648-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	17724-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	17724-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	17724-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	20921-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	20921-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	20921-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21295-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21295-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21295-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21306-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21306-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21322-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21322-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21322-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39539-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39539-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39694-02	

A04 Manufacturer's mark: D H

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: A H B

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

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

A10 Advice of dispatch No./ Date of dispatch: 369429-17.09.10

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

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10551-J1010-ER

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

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

B01-B99 Description of the product

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

A04 Manufacturer's mark: DH

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: AHB

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 3/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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
			INCH						
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15610-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15626-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15626-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15645-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15645-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15645-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350402	15169-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350402	15399-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350402	15399-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350402	15399-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39714-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39946-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39946-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39946-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39963-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39963-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	40537-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	40537-02	
**	27				150660				
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13199-01	
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13199-02	
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13199-03	
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13308-01	

A04 Manufacturer's mark: D H

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: A H B

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: 369429-17.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 4/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No.: ED10551-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70 SA20-SS

B03 Any suppl. requirements: ASME-II-A:07+A09
DIL-HUE-2:R30-2010-01-31

B01-B99 Description of the product

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

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
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: 369429-17.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 5/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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
			INCH						
05	1	0,8750 x	150,00000 x	480,00000	8104	N	350402	14854-01	
05	1	0,8750 x	150,00000 x	480,00000	8104	N	350402	14854-02	
**	2				16208				
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06356-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06356-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06357-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06357-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06357-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06943-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06943-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06943-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07812-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07812-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07812-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07813-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07813-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07813-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	10672-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	10672-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	10672-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	11097-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	11097-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	11097-03	

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 6/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. ED10551-J1010-ER

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

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

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
			INCH						
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05063-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05063-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05063-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05064-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05064-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05064-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05065-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05065-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05065-03	
**	29				172811				
***	119				672445				

B04 Product delivery condition

ITEM NO.: 01-05,07-08
N: ET: 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 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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 7/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

B07-B99 Further information about the product

ITEM NO.: 01-05,07-08
THICKNESS REDUCTION RATIO >= 3;0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10 KSI RP02	C11 RM	C12 A % L0=8IN	C13	C14-C15
01	348840	11315		K1	Q	RT	51,3	77,6	27		
01	350041	63961		K1	Q	RT	47,9	73,1	29		
01	350399	17648		K1	Q	RT	51,3	76,6	27		
01	350399	17724		K1	Q	RT	50,5	76,3	28		
01	350399	20921		K1	Q	RT	49,9	75,7	25		
01	350399	21295		K1	Q	RT	50,8	76,4	26		
01	350399	21306		K1	Q	RT	50,5	75,8	26		
01	350399	21322		K1	Q	RT	50,3	76,3	28		
01	350405	39539		K1	Q	RT	50,9	75,8	29		
01	350405	39694		K1	Q	RT	50,5	75,0	28		
01	350405	39715		K1	Q	RT	50,2	75,4	31		
01	350405	39774		K1	Q	RT	49,7	75,3	27		
01	350405	39799		K1	Q	RT	49,6	75,0	28		
01	350405	39959		K1	Q	RT	50,3	75,8	28		
01	350405	39965		K1	Q	RT	48,7	74,7	28		
02	350401	15513		K1	Q	RT	46,7	73,7	27		
02	350401	15526		K1	Q	RT	48,3	73,5	28		
02	350401	15608		K1	Q	RT	49,0	74,2	26		
02	350401	15610		K1	Q	RT	46,7	73,5	30		
02	350401	15626		K1	Q	RT	49,2	74,2	28		

A04 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

B. BALDAUF
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

C10-C29 Tensile 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	C10	C11 KSI RP02	C12 RM	C13 A % L0=8IN	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		49,6	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 Manufacturer's mark: D H

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: A H B

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: 369429-17.09.10

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

Sheet: 9/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON — A07.1 No. ED10551-J1010-ER

Final receiver: EDMONTON STEEL, EDMON — A07.2 No.

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

C10-C29 Tensile 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	C10 KSI RP02	C11	C12 RM	C13 A % L0=5IN	C14-C15
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/C01	C03 Temp. GR.F	C30 Method of test	C35	C31 Individual values			C32 Mean value
01	348840	11315		K1	O	RT	HBW 10/3000	HB	147	149	148	148
01	350041	63961		K1	O	RT	HBW 10/3000	HB	141	143	142	142
01	350399	17648		K1	O	RT	HBW 10/3000	HB	146	147	146	146
01	350399	17724		K1	O	RT	HBW 10/3000	HB	148	146	145	146
01	350399	20921		K1	O	RT	HBW 10/3000	HB	146	145	144	145
01	350399	21295		K1	O	RT	HBW 10/3000	HB	144	144	143	144
01	350399	21306		K1	O	RT	HBW 10/3000	HB	144	143	142	143
01	350399	21322		K1	O	RT	HBW 10/3000	HB	142	142	142	142
01	350405	39539		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	350405	39694		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	350405	39715		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	350405	39774		K1	O	RT	HBW 10/3000	HB	144	145	143	144
01	350405	39799		K1	O	RT	HBW 10/3000	HB	145	145	144	145
01	350405	39959		K1	O	RT	HBW 10/3000	HB	144	145	145	145
01	350405	39965		K1	O	RT	HBW 10/3000	HB	139	139	138	139
02	350401	15513		K1	O	RT	HBW 10/3000	HB	142	142	141	142

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

B. BALDAUF
Test House Manager

AHB 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
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: 10/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED105S1-J1010-ER

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

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

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. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
02	350401	15526		K1	O	RT	HBW 10/3000	HB	142	142	139	141
02	350401	15608		K1	O	RT	HBW 10/3000	HB	141	140	139	140
02	350401	15610		K1	O	RT	HBW 10/3000	HB	142	141	140	141
02	350401	15626		K1	O	RT	HBW 10/3000	HB	138	139	139	139
02	350401	15645		K1	O	RT	HBW 10/3000	HB	139	139	137	138
02	350402	15169		K1	O	RT	HBW 10/3000	HB	141	142	140	141
02	350402	15399		K1	O	RT	HBW 10/3000	HB	146	146	144	145
02	350405	39714		K1	O	RT	HBW 10/3000	HB	144	144	144	144
02	350405	39946		K1	O	RT	HBW 10/3000	HB	145	144	145	145
02	350405	39963		K1	O	RT	HBW 10/3000	HB	142	142	141	142
02	350405	40537		K1	O	RT	HBW 10/3000	HB	141	141	140	141
03	350403	13199		K1	O	RT	HBW 10/3000	HB	143	143	142	143
03	350403	13308		K1	O	RT	HBW 10/3000	HB	142	143	142	142
04	350403	11964		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	11979		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	12013		K1	O	RT	HBW 10/3000	HB	143	144	143	143
04	350403	12280		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	12638		K1	O	RT	HBW 10/3000	HB	141	141	142	141
04	350404	11955		K1	O	RT	HBW 10/3000	HB	141	141	141	141
04	350405	05031		K1	O	RT	HBW 10/3000	HB	144	146	144	145
05	350402	14854		K1	O	RT	HBW 10/3000	HB	148	146	145	146
07	350404	06356		K1	O	RT	HBW 10/3000	HB	142	142	141	142
07	350404	06357		K1	O	RT	HBW 10/3000	HB	139	140	139	139
07	350404	06943		K1	O	RT	HBW 10/3000	HB	142	142	142	142

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

Date 17.09.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

BM 1

DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/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: 11/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10551-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SAS16-70 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 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
07	350404	07812		K1	O	RT	HBW 10/3000	HB 145	145	144	145
07	350404	07813		K1	O	RT	HBW 10/3000	HB 144	145	144	144
07	350404	10672		K1	O	RT	HBW 10/3000	HB 146	144	143	144
07	350404	11097		K1	O	RT	HBW 10/3000	HB 144	144	144	144
07	350405	05063		K1	O	RT	HBW 10/3000	HB 146	147	146	146
07	350405	05064		K1	O	RT	HBW 10/3000	HB 144	144	144	144
07	350405	05065		K1	O	RT	HBW 10/3000	HB 144	144	144	144

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 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=FT.LBF			C43 Mean value
01	348840	11315		K1	LV	-51		CHP-V			AV 101	123	139	121
01	350041	63961		K1	LV	-51		CHP-V			AV 208	195	181	195
01	350399	17648		K1	LV	-51		CHP-V			AV 193	125	111	143
01	350399	17724		K1	LV	-51		CHP-V			AV 117	181	148	149
01	350399	20921		K1	LV	-51		CHP-V			AV 124	120	162	135
01	350399	21295		K1	LV	-51		CHP-V			AV 119	119	198	145
01	350399	21306		K1	LV	-51		CHP-V			AV 141	209	132	161
01	350399	21322		K1	LV	-51		CHP-V			AV 122	197	193	171
01	350405	39539		K1	LV	-51		CHP-V			AV 184	196	195	192
01	350405	39694		K1	LV	-51		CHP-V			AV 208	187	142	179
01	350405	39715		K1	LV	-51		CHP-V			AV 104	194	152	150
01	350405	39774		K1	LV	-51		CHP-V			AV 119	198	139	152
01	350405	39799		K1	LV	-51		CHP-V			AV 129	162	197	163
01	350405	39959		K1	LV	-51		CHP-V			AV 198	150	206	185

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 12/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rel.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 Mean value
01	350405	39965		K1	LV	-51		CHP-V			AV 192	147	190	176
02	350401	15513		K1	LV	-51		CHP-V			AV 128	150	127	135
02	350401	15526		K1	LV	-51		CHP-V			AV 195	209	128	177
02	350401	15608		K1	LV	-51		CHP-V			AV 137	131	130	133
02	350401	15610		K1	LV	-51		CHP-V			AV 117	193	186	165
02	350401	15626		K1	LV	-51		CHP-V			AV 122	212	190	175
02	350401	15645		K1	LV	-51		CHP-V			AV 145	207	198	183
02	350402	15169		K1	LV	-51		CHP-V			AV 159	118	201	159
02	350402	15399		K1	LV	-51		CHP-V			AV 186	164	136	162
02	350405	39714		K1	LV	-51		CHP-V			AV 144	201	116	154
02	350405	39946		K1	LV	-51		CHP-V			AV 205	124	125	151
02	350405	39963		K1	LV	-51		CHP-V			AV 119	192	124	145
02	350405	40537		K1	LV	-51		CHP-V			AV 131	131	195	152
03	350403	13199		K1	LV	-51		CHP-V			AV 120	148	117	128
03	350403	13308		K1	LV	-51		CHP-V			AV 130	188	142	153
04	350403	11964		K1	LV	-51		CHP-V			AV 192	106	181	160
04	350403	11979		K1	LV	-51		CHP-V			AV 90	142	130	121
04	350403	12013		K1	LV	-51		CHP-V			AV 136	118	146	133
04	350403	12280		K1	LV	-51		CHP-V			AV 109	187	195	164
04	350403	12638		K1	LV	-51		CHP-V			AV 114	157	116	129
04	350404	11955		K1	LV	-51		CHP-V			AV 117	127	125	123
04	350405	05031		K1	LV	-51		CHP-V			AV 157	128	190	158
05	350402	14854		K1	LV	-51		CHP-V			AV 118	125	136	126
07	350404	06356		K1	LV	-51		CHP-V			AV 131	129	145	135

A01

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

Date 17.09.10

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

BM 1

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

DILLINGER HÜTTE

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/ A03 Manufacturer's order/ Certificate No.: 357359-002 Sheet: 13/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER
Final receiver: EDMONTON STEEL,EDMON A07.2 No.

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

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=FT.LBF			C43 Mean value
07	350404	06357		K1	LV	-51		CHP-V			AV	114	98	153	122
07	350404	06943		K1	LV	-51		CHP-V			AV	188	108	123	140
07	350404	07812		K1	LV	-51		CHP-V			AV	190	106	128	141
07	350404	07813		K1	LV	-51		CHP-V			AV	193	118	130	147
07	350404	10672		K1	LV	-51		CHP-V			AV	55	153	145	118
07	350404	11097		K1	LV	-51		CHP-V			AV	150	204	131	162
07	350405	05063		K1	LV	-51		CHP-V			AV	101	124	122	116
07	350405	05064		K1	LV	-51		CHP-V			AV	95	146	122	121
07	350405	05065		K1	LV	-51		CHP-V			AV	88	194	125	136

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
348840	Y	0,184	0,384	1,18	0,010	0,0011	0,0063	0,044	0,010	0,053	0,030	0,001	0,000	0,001	0,003
350041	Y	0,163	0,344	1,19	0,012	0,0009	0,0071	0,037	0,014	0,048	0,045	0,001	0,000	0,001	0,003
350399	Y	0,176	0,376	1,19	0,010	0,0011	0,0075	0,046	0,015	0,055	0,049	0,001	0,000	0,001	0,003
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

A04 DH 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
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 14/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

C70-C99 Chemical composition % - Heat analysis

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

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat										
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

A04 Manufacturer's mark: DH

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

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 15/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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

A04 Manufacturer's mark: D H

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: AHB

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: 369429-17.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 16/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. ED10551-J1010-ER

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

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

C70-C99 Chemical composition % - Product analysis

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

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01						
348840	11315	K1	FO-02=	0,40	FO-51=	0,001	FO-55=	0,14
350041	63959	K1	FO-02=	0,37	FO-51=	0,002	FO-55=	0,14
350041	63961	K1	FO-02=	0,37	FO-51=	0,002	FO-55=	0,14
350399	21322	K1	FO-02=	0,39	FO-51=	0,000	FO-55=	0,16
350401	15608	K1	FO-02=	0,37	FO-51=	0,001	FO-55=	0,13
350402	14890	K1	FO-02=	0,38	FO-51=	0,002	FO-55=	0,14
350402	15169	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,13

A04 Manufacturer's mark

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

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: 17

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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 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

MTR APPROVED EDMONTON EXCHANGER

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

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

Date 17.09.10 BM 1

A01

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 369817-21.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-003 Sheet: 1/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. ED10551-J1010-ER

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

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

15713

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
			INCH						
01	1	0,6250 x	120,50000 x	480,00000	4650	N	348840	11315-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350399	21306-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39694-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39715-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39715-03	
**	5				23250				
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39714-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39714-03	
**	2				11160				
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12280-01	
05	1	0,8750 x	150,00000 x	480,00000	8104	N	350402	14890-01	
05	1	0,8750 x	150,00000 x	480,00000	8104	N	350402	14890-02	
05	1	0,8750 x	150,00000 x	480,00000	8104	N	350403	14124-01	
05	1	0,8750 x	150,00000 x	480,00000	8104	N	350403	14124-02	
**	4				32416				
06	1	0,8750 x	178,00000 x	356,00000	7133	N	350402	15168-01	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	350402	15168-02	
**	2				14266				
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06356-01	
08	1	1,1250 x	178,00000 x	356,00000	9171	N	350041	63959-01	
***	16				102732				

A04 Manufacturer's mark: D H

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: A H B

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

A01

Date 22.09.10 PP 1

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 369817-21.09.10

A08/ A03 Manufacturer's order/ Certificate No.: 357359-003 Sheet: 2/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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 MTLTV SA516 60 MTLTV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

B07-B99 Further information about the product

ITEM NO.: 01-08
THICKNESS REDUCTION RATIO >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile 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	C10	C11 KSI RP02	C12 RM	C13	C14-C15 A % L0=8IN
01	348840	11315		K1	Q	RT		51,3	77,6		27
01	350399	21306		K1	Q	RT		50,5	75,8		26
01	350405	39694		K1	Q	RT		50,5	75,0		28
01	350405	39715		K1	Q	RT		50,2	75,4		31
02	350405	39714		K1	Q	RT		49,6	75,3		26
04	350403	12280		K1	Q	RT		49,9	74,1		27
05	350402	14890		K1	Q	RT		49,7	74,5		29
05	350403	14124		K1	Q	RT		49,0	75,0		26
06	350402	15168		K1	Q	RT		49,6	74,1		30

A04 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
Test House Manager

Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 22.09.10 PP 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 369817-21.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-003 Sheet: 3/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

C10-C29 Tensile 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	C10 C11 KSI RP02	C12 RM	C13 A % L0=8IN	C14-C15
07	350404	06356		K1	Q	RT	49,3	75,0	28	
08	350041	63959		K1	Q	RT	49,2	72,4	31	

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
01	348840	11315		K1	O	RT	HBW 10/3000	HB	147	149	148	148
01	350399	21306		K1	O	RT	HBW 10/3000	HB	144	143	142	143
01	350405	39694		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	350405	39715		K1	O	RT	HBW 10/3000	HB	142	142	141	142
02	350405	39714		K1	O	RT	HBW 10/3000	HB	144	144	144	144
04	350403	12280		K1	O	RT	HBW 10/3000	HB	142	142	142	142
05	350402	14890		K1	O	RT	HBW 10/3000	HB	143	144	143	143
05	350403	14124		K1	O	RT	HBW 10/3000	HB	147	146	145	146
06	350402	15168		K1	O	RT	HBW 10/3000	HB	143	143	143	143
07	350404	06356		K1	O	RT	HBW 10/3000	HB	142	142	141	142
08	350041	63959		K1	O	RT	HBW 10/3000	HB	138	139	139	139

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	C45 Energy	C45 C42 Individual values AV=FT.LBF			C43 Mean value
01	348840	11315		K1	LV	-51		CHP-V			AV	101	123	139	121
01	350399	21306		K1	LV	-51		CHP-V			AV	141	209	132	161
01	350405	39694		K1	LV	-51		CHP-V			AV	208	187	142	179

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

Date 22.09.10 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+A1:1995 + AS PER ISO 10474:1991
MATERIAL TEST REPORT (MTR)

A10 Advice of dispatch No./ Date of dispatch: 369817-21.09.10

A08/ A03 Manufacturer's order/ Certificate No.: 357359-003 Sheet: 4/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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=FT.LBF			C43 Mean value
01	350405	39715		K1	LV	-51		CHP-V			AV	104	194	152	150
02	350405	39714		K1	LV	-51		CHP-V			AV	144	201	116	154
04	350403	12280		K1	LV	-51		CHP-V			AV	109	187	195	164
05	350402	14890		K1	LV	-51		CHP-V			AV	125	111	121	119
05	350403	14124		K1	LV	-51		CHP-V			AV	136	128	143	136
06	350402	15168		K1	LV	-51		CHP-V			AV	111	94	117	107
07	350404	06356		K1	LV	-51		CHP-V			AV	131	129	145	135
08	350041	63959		K1	LV	-51		CHP-V			AV	238	236	240	238

C70-C99 Chemical composition % - Heat analysis

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

A04 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
Test House Manager

Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 22.09.10 PP 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 369817-21.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-003 Sheet: 5/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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										
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
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.: 01-08
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C95 Further information about ladle treatment

ITEM NO.: 01-08
CALCIUM TREATED

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

Date 22.09.10 PP I

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 369817-21.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-003 Sheet: 6/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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
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

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
348840	11315	K1	0,0002	0,0015	0,033
350041	63959	K1	0,0002	0,0016	0,033
350041	63961	K1	0,0003	0,0013	0,033
350399	21322	K1	0,0003	0,0017	0,036
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

A04 Manufacturer's mark: D H

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 22.09.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

PP 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 369817-21.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-003 Sheet: 7/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

S01 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

C70-C99 Chemical composition % - Product analysis

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

C94 Product analysis Carbon equivalent / Alloying restrictions

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

A04 DH 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
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 22.09.10 PP 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 369817-21.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-003 Sheet: 8

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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.: 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

MTR APPROVED EDMONTON EXCHANGER

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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.
Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-001
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
9.52*2451*12192 0.375"X96.5"X480" *Specimen No :DP02100303-a, DP02100303-c ** Normalized:1570°F,23min	A085441-01,02,03		2,235	J1011839	T	1	54	77	23	1	1:140 2:157 3:126 A:141	L	16	36	143	11	3	13	2	1	5	1	1	1	32		399	
	Sub Total (10)	3	6,705																									
9.52*2451*12192 0.375"X96.5"X480" *Specimen No :DP02108303-a, DP02108303-c ** Normalized:1570°F,23min	A085443-01,02,03		2,235	J1021969	T	1	54	78	22	1	1: 99 2:109 3: 62 A: 89	L	17	36	144	16	2	12	2	1	2	1	2	1	34		410	
	Sub Total (10)	3	6,705																									
9.52*2451*12192 0.375"X96.5"X480" *Specimen No :DP02103703-a, DP02103703-c ** Normalized:1570°F,23min	A085442-01,02,03		2,235	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		403	
	Sub Total (10)	3	6,705																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-002
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
9.52*2451*12192 0.375"X96.5"X480" *Specimen No :DP02020804-a, DP02020804-c ** Normalized:1670°F,23min	A083298-01		2,235	JK566054	T	1	52	79	28	1	1:147 2:137 3:160 A:148	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (10)	1	2,235																									
9.52*3061*12192 0.375"X120.5"X480" *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	L	16	37	143	17	3	20	1	2	1	1	1	2		31	405	
	Sub Total (20)	2	5,580																									
9.52*3061*12192 0.375"X120.5"X480" *Specimen No :DP02071803-a, DP02071803-c ** Normalized:1670°F,23min	A084295-01,02		2,790	JK566053	T	1	53	78	22	1	1: 87 2:106 3:132 A:109	L	16	37	143	19	4	30	1	2	1	1	1	2		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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-003
Date of issue. : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3.	Ceq 3	Remarks
9.52*3061*12192 0.375"X120.5"X480" *Specimen No :DP02065507-a, DP02065507-c ** Normalized: 1570°F, 23min	A084296-02,03		2,790	JK566054	T	1	51	78	23	1	1:143 2:122 3:141 A:135	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (20)	2	5,580																									
12.70*2451*12192 0.5"X96.5"X480" *Specimen No :DP02204501-a, DP02204501-c ** Normalized: 1570°F, 23min	A087507-01,02,03		2,980	J1775888	T	1	50	74	24		1: 81 2: 61 3: 73 A: 72	L	16	36	143	16	8	20	1	1	1	1	1	3	34		404	
	Sub Total (30)	3	8,940																									
12.70*3061*12192 0.5"X120.5"X480" *Specimen No :DP02040403-a, DP02040403-c ** Normalized: 1570°F, 23min	A083738-01,02		3,721	JK566051	T	1	49	78	23		1:133 2:145 3:134 A:137	L	16	39	143	16	4	20	1	2	1	1	1	2		39	405	
	Sub Total (40)	2	7,442																									

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

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and 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.

* 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, 6-5.65√A, 7-5d, 8-4d, 9-8d
* T(S).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to

Chief of Quality Control Team

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	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
12.70*3061*12192 0.5"X120.5"X480" *Specimen No :DP02072807-a, DP02072807-c ** Normalized:1670°F,28min	A084290-01,02		3,721	JK566052	T	1	52	77	24		1: 77 2:120 3: 75 A: 90	L	16	37	143	17	3	20	.1	2	1	1	1	2		31	405	
	Sub Total (40)	2	7,442																									
12.70*3061*12192 0.5"X120.5"X480" *Specimen No :DP02065505-a, DP02065505-c ** Normalized:1670°F,28min	A084288-01,02		3,721	JK566054	T	1	52	78	23		1: 70 2: 81 3: 70 A: 73	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (40)	2	7,442																									
12.70*3061*12192 0.5"X120.5"X480" *Specimen No :DP02065505-a, DP02065505-c ** Normalized:1670°F,28min	A084289-01,02		3,721	JK566054	T	1	54	78	23		1:127 2:146 3:158 A:143	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (40)	2	7,442																									

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

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and 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.

* 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, 6-5.65√A, 7-5d, 8-4d, 9-8d
* T(S).Al : Total(Soluble) Al

Surveyor to

Surveyor to

Surveyor to

Surveyor to

Chief of Quality Control Team

ORIGINAL

MILL TEST CERTIFICATE

DONGKUK STEEL

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

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

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

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	YP ksi	TS ksi	EL %	Impact Test Sub	-50 °F V Notch -ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
15.88*3061*12192 0.625"X120.5"X480" *Specimen No :DP02069505-a, DP02069505-c ** Normalized:1670°F,32min	A084042-01		4,652	J2752178	T	1	49	74	24		1: 79 2: 75 3:106 A: 87	L	16	39	140	16	7	20	1	1	1	1	1	4	31		400	
	Sub Total (50)	1	4,652																									
15.88*3061*12192 0.625"X120.5"X480" *Specimen No :DP02067501-a, DP02067501-c ** Normalized:1670°F,32min	A084041-01		4,652	J2753135	T	1	47	73	24		1: 96 2: 61 3: 91 A: 83	L	15	37	143	17	11	20	1	1	1	1	1	3	31		394	
	Sub Total (50)	1	4,652																									
19.05*3061*12192 0.75"X120.5"X480" *Specimen No :DP02069504-a, DP02069504-c ** Normalized:1670°F,37min	A084024-01,02		5,580	J2752178	T	1	50	75	25		1: 92 2: 50 3: 80 A: 74	L	16	39	140	16	7	20	1	1	1	1	1	4	31		400	
	Sub Total (50)	2	11,160																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to

Surveyor to

Surveyor to

Surveyor to

Chief of Quality Control Team

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. : DP3-2-101129-057-006
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	YP ksi	TS ksi	EL %	Impact Test Sub	-50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
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		1:128 2: 96 3: 94 A:104	L	16	38	144	17	4	20	1	2	1	1	1	2		35	407	
	Sub Total (60)	2	11,160																									
19.05*3061*12192 0.75"X120.5"X480" *Specimen No :DP02072805-a, DP02072805-c ** Normalized:1670°F,37min	A084062-01.02		5,580	JK566052	T	1	53	77	24		1:120 2:133 3:134 A:129	L	16	37	143	17	3	20	1	2	1	1	1	2		31	405	
	Sub Total (60)	2	11,160																									
19.05*3061*12192 0.75"X120.5"X480" *Specimen No :DP02065503-a, DP02065503-c ** Normalized:1670°F,37min	A084061-01.02		5,580	JK566054	T	1	53	77	27		1:126 2:101 3:125 A:117	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (60)	2	11,160																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-007
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	YP ksi	TS ksi	EL %	Impact Test Sub	-50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
19.05*3061*12192 0.75"X120.5"X480" *Specimen No :DP02065504-a, DP02065504-c ** Normalized:1670°F,37min	A084064-01.02		5,580	JK566054	T	1	53	78	24		1:115 2:116 3: 78 A:103	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (60)	2	11,160																									
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02039801-a, DP02039801-c ** Normalized:1670°F,51min	A083492-01		6,512	J2751863	T	1	45	74	26		1: 59 2: 78 3:118 A: 84	L	15	38	144	20	6	20	1	1	1	1	1	4	32		396	
	Sub Total (70)	1	6,512																									
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02069503-a, DP02069503-c ** Normalized:1670°F,51min	A084021-01.02		6,512	J2752178	T	1	45	74	27		1:125 2:118 3:113 A:119	L	16	39	140	16	7	20	1	1	1	1	1	4	31		400	
	Sub Total (70)	2	13,024																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

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

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. : DP3-2-101129-057-008
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	YP ksi	TS ksi	EL %	Impact Test Sub	-50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02039303-a, DP02039303-c ** Normalized:1670°F,51min	A083493-01		6,512	J3202300	T	1	48	76	27		1: 87 2:110 3:108 A:102	L	16	38	143	17	6	20	1	1	1	1	1	3	33		404	
	Sub Total (70)	1	6,512																									
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02060901-a, DP02060901-c ** Normalized:1670°F,51min	A084056-01.02		6,512	JK566051	T	1	47	77	26		1:127 2:152 3:155 A:145	L	16	39	143	16	4	20	1	2	1	1	1	2		39	405	
	Sub Total (70)	2	13,024																									
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02072804-a, DP02072804-c ** Normalized:1670°F,51min	A084057-01.02		6,512	JK566052	T	1	51	76	27		1:151 2:151 3:146 A:149	L	16	37	143	17	3	20	1	2	1	1	1	2		31	405	
	Sub Total (70)	2	13,024																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

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

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

Dimension Unit inch: *, mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02071801-a, DP02071801-c ** Normalized:1670°F,51min	A084058-01,02		6,512	JK566053	T	1	48	77	26		1:135 2:149 3:138 A:141	L	16	37	143	19	4	30	1	2	1	1	1	2		39	407	
	Sub Total (70)	2	13,024																									
25.40*2451*12192 1"X96.5"X480" *Specimen No :DP02040202-a, DP02040202-c ** Normalized:1670°F,56min	A083466-01		5,958	J1774078	T	1	49	74	27		1: 58 2: 82 3: 57 A: 66	L	16	37	143	20	8	20	1	1	1	1	1	4	30		405	
	Sub Total (80)	1	5,958																									
25.40*3061*12192 1"X120.5"X480" *Specimen No :DP02072801-a, DP02072801-c ** Normalized:1670°F,56min	A084052-01		7,439	JK566052	T	1	45	75	27		1:151 2:129 3:151 A:144	L	16	37	143	17	3	20	1	2	1	1	1	2		31	405	
	Sub Total (90)	1	7,439																									

* Tensile Test Direction=Transverse
* Impact Test Direction=Longitudinal
* Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+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.

* 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=5.65√A, 7=5d, 8=4d, 9=3d
* T(S).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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

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. : DP3-2-101129-057-010
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50°F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
31.75*2464*12192 1.25"X97"X480" *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	38	142	19	7	20	1	1	1	2	1	3	27		403	
	Sub Total (100)	1	7,488																									
31.75*2464*12192 1.25"X97"X480" *Specimen No :DP02033301-a, DP02033301-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	3	33		404	
	Sub Total (100)	1	7,488																									
31.75*2464*12192 1.25"X97"X480" *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	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 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.

* 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=5.65√A, 7=5d, 8=4d, 9=8d
* T(S).Al : Total(Soluble) Al

Surveyor to

Surveyor to

Surveyor to

Surveyor to

Chief of Quality Control Team

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

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. : DP3-2-101129-057-011
Date of issue. : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50°F V Notch ft*lbf	Division	Chemical Composition C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
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 2:137 3:109 A:114	L	15	36	144	20	5	30	1	2	1	-1	1	2		60	399	
	Sub Total (100)	1	7,488																									
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02040203-a, DP02040203-c ** Normalized:1670°F,64min	A083489-01		9,340	J1774078	T	1	47	74	28		1: 90 2: 56 3: 59 A: 68	L	16	37	143	20	8	20	1	1	1	1	1	4	39		405	
	Sub Total (110)	1	9,340																									
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02047501-a, DP02047501-c ** Normalized:1670°F,64min	A083490-01		9,340	J2751834	T	1	47	73	27		1: 92 2: 62 3: 67 A: 73	L	18	39	144	15	9	20	1	1	1	1	1	3	28		405	
	Sub Total (110)	1	9,340																									

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

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

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-012
Date of issue : Nov. 29, 2010

Dimension Unit Inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	Chemical Composition C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02069502-a, DP02069502-c ** Normalized:1670°F,64min	A084020-01		9,340	J2752178	T	1	44	73	27		1: 96 2: 99 3:115 A:103	L	16	39	140	16	7	20	1	1	1	1	1	4	31		400	
	Sub Total (110)	1	9,340																									
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02021603-a, DP02021603-c ** Normalized:1670°F,64min	A082939-01		9,340	JK467027	T	1	49	75	27		1:100 2: 94 3:103 A: 99	L	16	37	143	16	5	20	1	2	1	2	2	2		42	405	
	Sub Total (110)	1	9,340																									
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02067201-a, DP02067201-c ** Normalized:1670°F,64min	A084050-01		9,340	JK467027	T	1	49	75	27		1: 82 2: 64 3: 83 A: 76	L	16	37	143	16	5	20	1	2	1	2	2	2		42	405	
	Sub Total (110)	1	9,340																									
<Grand Total>		60	298,071																									

MTR APPROVED
EDMONTON EXCHANGE

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

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

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: 372163-28.10.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-004 Sheet: 1/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10551-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70 SA20-S5

B03 Any suppl. requirements: ASME-II-A:07+A09
DIL-HUK-2:R30-2010-01-31

15856

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
			INCH						
06	1	0,8750 x	178,00000 x	356,00000	7133	N	350402	14896-01	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	350402	14896-02	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	350402	14995-01	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	350402	14995-02	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	350402	15030-01	
06	1	0,8750 x	178,00000 x	356,00000	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 MTLTV SA516 60 MTLTV
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 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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 29.10.10 PP 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10551-J1010-ER

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

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

C10-C29 Tensile 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	C10 KSI RP0Z	C11	C12 RM	C13 A % L0=5IN	C14-C15
06	350402	14896		K1	Q	RT	48,9		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/C01	C03 Temp. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
06	350402	14896		K1	O	RT	HBW 10/3000	HB 147	147	147	147
06	350402	14995		K1	O	RT	HBW 10/3000	HB 147	147	147	147
06	350402	15030		K1	O	RT	HBW 10/3000	HB 147	148	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. 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 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	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

B07.2 Heat	C70	B	CA	AL-T
350402	Y	0,0002	0,0013	0,033

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 29.10.10 PP 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 3/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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 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

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
350402	14890	K1	0,168	0,389	1,17	0,010	0,0011	0,0065	0,036	0,011	0,065	0,027	0,001	0,001	0,001	0,003
350402	15169	K1	0,172	0,376	1,15	0,009	0,0010	0,0068	0,036	0,010	0,061	0,027	0,001	0,000	0,000	0,002

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
350402	14890	K1	0,0002	0,0017	0,032
350402	15169	K1	0,0002	0,0015	0,035

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01					
350402	14890	K1	FO-02= 0,38	FO-51= 0,002	FO-55= 0,14		
350402	15169	K1	FO-02= 0,38	FO-51= 0,001	FO-55= 0,13		

A04 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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 29.10.10 PP 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 4

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

MTR APPROVED EDMONTON EXCHANGER

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 29.10.10 PP 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 1/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

15903

B01-B99 Description of the product

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

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
Test House Manager

Inspector's stamp

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 2/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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
			INCH						
**	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	

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
Test House Manager

Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 05.11.10 PP 1

DILLINGER HÜTTE

Erläuterungen siehe Rücksaite/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: 3/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. ED10553-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70 SA20-SS

B03 Any suppl. requirements: ASME-II-A:07+A09
DIL-HUE-2:R30-2010-01-31

B01-B99 Description of the product

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

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 4/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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
			INCH						
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34997-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	35145-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	35145-02	
**	20				130200				
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35403-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35450-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35450-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35453-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35453-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35458-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35458-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35463-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35463-02	
**	9				53631				
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	33863-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	33863-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	34106-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32679-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32679-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32686-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32686-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32697-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32700-01	

A04 DH 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
Test House Manager

AHB Inspector's stamp

Date 05.11.10 PP I

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: 372664-05.11.10

A08/ Manufacturer's order/ A03 Certificate No.: 359527-001 Sheet: 5/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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
			INCH						
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32700-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32701-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32701-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32814-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32814-02	
**	14				104160				
06	1	1,0000 x	178,00000 x	480,00000	10991	N	351663	33457-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34697-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34764-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34764-02	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34779-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34780-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34827-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34827-02	
**	7				47166				
08	1	1,2500 x	97,00000 x	480,00000	7487	N	351664	32678-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33459-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33460-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33690-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33768-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33771-01	
**	5				46695				
***	107				657940				

A04 Manufacturer's mark: D H

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: AHB

Date 05.11.10 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+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: 6/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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 MTLTV SA516 60 MTLTV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

B07-B99 Further information about the product

ITEM NO.: 01-09
THICKNESS REDUCTION RATIO >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile 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	C10 KSI RP02	C11 RM	C12 A % L0=8IN	C13 A % L0=2IN
01	351660 34359			K1	Q	RT	50,3	75,0	26	
01	351660 34482			K1	Q	RT	50,5	75,4	28	
01	351660 34532			K1	Q	RT	50,0	75,1	27	
01	351660 34572			K1	Q	RT	50,8	75,4	27	
01	351660 34692			K1	Q	RT	51,8	75,7	27	
01	351661 34107			K1	Q	RT	49,7	74,5	26	
01	351661 34287			K1	Q	RT	49,4	74,7	26	
01	351661 34331			K1	Q	RT	49,7	74,2	26	
02	351660 34360			K1	Q	RT	50,2	74,8	27	

C14-C15

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
Test House Manager

Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 7/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON — A07.1 No.: ED10553-J1010-ER

Final receiver: EDMONTON STEEL,EDMON — A07.2 No.:

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

C10-C29 Tensile 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	C10	C11 KSI RP02	C12 RM	C13	C14-C15 A % L0=8IN	C14-C15 A % L0=2IN
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 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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

A02/ Manufacturer's order/ A03 Certificate No.: 359527-001 Sheet: 8/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

S01 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

C10-C29 Tensile 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	C10	C11 KSI RP02	C12 RM	C13	C14-C15 A % L0=8IN	C14-C15 A % L0=2IN
05	351661	33863		K1	Q	RT		50,5	74,5		27	
05	351661	34106		K1	Q	RT		49,9	74,2		28	
05	351664	32679		K1	Q	RT		47,9	72,8		28	
05	351664	32686		K1	Q	RT		48,3	72,8		28	
05	351664	32697		K1	Q	RT		48,6	72,8		28	
05	351664	32700		K1	Q	RT		48,4	73,2		28	
05	351664	32701		K1	Q	RT		48,3	73,5		28	
05	351664	32814		K1	Q	RT		47,9	73,5		29	
06	351663	33457		K1	Q	RT		48,1	73,7		27	
07	351659	34697		K1	Q	RT		49,4	73,8		30	
07	351659	34764		K1	Q	RT		48,7	73,8		27	
07	351659	34779		K1	Q	RT		48,6	73,7		28	
07	351659	34780		K1	Q	RT		47,6	73,7		29	
07	351659	34827		K1	Q	RT		48,1	74,0		31	
08	351664	32678		K1	QV	RT		47,7	74,0			38
09	351663	33459		K1	QV	RT		50,6	75,4			37
09	351663	33460		K1	QV	RT		52,1	75,5			36
09	351663	33690		K1	QV	RT		47,6	74,7			35
09	351663	33768		K1	QV	RT		49,3	75,3			35
09	351663	33771		K1	QV	RT		48,6	74,8			35

A04 Manufacturer's mark (D H)

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
T... House Manager

Inspector's stamp (A H B)

Date 05.11.10 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+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: 9/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
01	351660	34359		K1	O	RT	HBW 10/3000	HB 149	150	149	149
01	351660	34482		K1	O	RT	HBW 10/3000	HB 149	149	149	149
01	351660	34532		K1	O	RT	HBW 10/3000	HB 150	150	150	150
01	351660	34572		K1	O	RT	HBW 10/3000	HB 150	151	149	150
01	351660	34692		K1	O	RT	HBW 10/3000	HB 150	151	150	150
01	351661	34107		K1	O	RT	HBW 10/3000	HB 149	149	148	149
01	351661	34287		K1	O	RT	HBW 10/3000	HB 150	150	150	150
01	351661	34331		K1	O	RT	HBW 10/3000	HB 148	149	148	148
02	351660	34360		K1	O	RT	HBW 10/3000	HB 149	149	149	149
02	351660	34479		K1	O	RT	HBW 10/3000	HB 150	151	151	151
02	351660	34507		K1	O	RT	HBW 10/3000	HB 151	151	150	151
02	351660	34541		K1	O	RT	HBW 10/3000	HB 148	149	148	148
02	351660	34646		K1	O	RT	HBW 10/3000	HB 149	149	149	149
02	351660	34695		K1	O	RT	HBW 10/3000	HB 150	149	149	149
02	351661	34129		K1	O	RT	HBW 10/3000	HB 149	150	148	149
02	351661	34269		K1	O	RT	HBW 10/3000	HB 149	149	149	149
02	351661	34342		K1	O	RT	HBW 10/3000	HB 149	148	148	148
03	351658	35146		K1	O	RT	HBW 10/3000	HB 149	149	148	149
03	351658	35147		K1	O	RT	HBW 10/3000	HB 151	150	149	150
03	351658	35193		K1	O	RT	HBW 10/3000	HB 147	147	146	147
03	351658	35239		K1	O	RT	HBW 10/3000	HB 150	149	149	149
03	351658	35350		K1	O	RT	HBW 10/3000	HB 148	149	148	148
03	351659	34829		K1	O	RT	HBW 10/3000	HB 147	147	146	147
03	351659	34831		K1	O	RT	HBW 10/3000	HB 152	149	149	150

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 10/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
03	351659	34851		K1	O	RT	HBW 10/3000	HB 148	147	148	148
03	351659	34997		K1	O	RT	HBW 10/3000	HB 146	146	146	146
03	351659	35145		K1	O	RT	HBW 10/3000	HB 147	148	146	147
04	351658	35403		K1	O	RT	HBW 10/3000	HB 149	149	146	148
04	351658	35450		K1	O	RT	HBW 10/3000	HB 147	148	146	147
04	351658	35453		K1	O	RT	HBW 10/3000	HB 147	146	145	146
04	351658	35458		K1	O	RT	HBW 10/3000	HB 149	150	149	149
04	351658	35463		K1	O	RT	HBW 10/3000	HB 151	151	151	151
05	351661	33863		K1	O	RT	HBW 10/3000	HB 148	148	148	148
05	351661	34106		K1	O	RT	HBW 10/3000	HB 148	148	148	148
05	351664	32679		K1	O	RT	HBW 10/3000	HB 145	145	145	145
05	351664	32686		K1	O	RT	HBW 10/3000	HB 145	144	145	145
05	351664	32697		K1	O	RT	HBW 10/3000	HB 147	146	146	146
05	351664	32700		K1	O	RT	HBW 10/3000	HB 145	146	145	145
05	351664	32701		K1	O	RT	HBW 10/3000	HB 146	146	145	146
05	351664	32814		K1	O	RT	HBW 10/3000	HB 145	148	148	147
06	351663	33457		K1	O	RT	HBW 10/3000	HB 146	146	145	146
07	351659	34697		K1	O	RT	HBW 10/3000	HB 145	146	145	145
07	351659	34764		K1	O	RT	HBW 10/3000	HB 146	146	147	146
07	351659	34779		K1	O	RT	HBW 10/3000	HB 146	146	146	146
07	351659	34780		K1	O	RT	HBW 10/3000	HB 145	145	144	145
07	351659	34827		K1	O	RT	HBW 10/3000	HB 145	145	145	145
08	351664	32678		K1	O	RT	HBW 10/3000	HB 146	145	145	145
09	351663	33459		K1	O	RT	HBW 10/3000	HB 150	150	154	151

A04 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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 11/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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. GR.F	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. 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 Mean value
01	351660	34359		K1	LV	-51		CHP-V			AV	132	130	139	134
01	351660	34482		K1	LV	-51		CHP-V			AV	140	204	201	182
01	351660	34532		K1	LV	-51		CHP-V			AV	113	122	111	115
01	351660	34572		K1	LV	-51		CHP-V			AV	131	209	122	154
01	351660	34692		K1	LV	-51		CHP-V			AV	163	197	131	164
01	351661	34107		K1	LV	-51		CHP-V			AV	164	209	204	192
01	351661	34287		K1	LV	-51		CHP-V			AV	159	122	218	166
01	351661	34331		K1	LV	-51		CHP-V			AV	209	128	200	179
02	351660	34360		K1	LV	-51		CHP-V			AV	111	209	92	137
02	351660	34479		K1	LV	-51		CHP-V			AV	187	196	131	171
02	351660	34507		K1	LV	-51		CHP-V			AV	197	159	148	168
02	351660	34541		K1	LV	-51		CHP-V			AV	154	147	206	169
02	351660	34646		K1	LV	-51		CHP-V			AV	198	130	191	173
02	351660	34695		K1	LV	-51		CHP-V			AV	110	190	191	164
02	351661	34129		K1	LV	-51		CHP-V			AV	192	104	143	146
02	351661	34269		K1	LV	-51		CHP-V			AV	189	96	98	128
02	351661	34342		K1	LV	-51		CHP-V			AV	171	215	195	194

A04 DH 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
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 12/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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=FT.LBF			C43 Mean value
03	351658	35146		K1	LV	-51		CHP-V			AV	200	128	114	147
03	351658	35147		K1	LV	-51		CHP-V			AV	140	195	112	149
03	351658	35193		K1	LV	-51		CHP-V			AV	200	51	92	114
03	351658	35239		K1	LV	-51		CHP-V			AV	130	151	120	134
03	351658	35350		K1	LV	-51		CHP-V			AV	170	203	202	192
03	351659	34829		K1	LV	-51		CHP-V			AV	119	200	122	147
03	351659	34831		K1	LV	-51		CHP-V			AV	116	201	129	149
03	351659	34851		K1	LV	-51		CHP-V			AV	89	209	188	162
03	351659	34997		K1	LV	-51		CHP-V			AV	193	162	104	153
03	351659	35145		K1	LV	-51		CHP-V			AV	92	198	209	166
04	351658	35403		K1	LV	-51		CHP-V			AV	124	207	190	174
04	351658	35450		K1	LV	-51		CHP-V			AV	165	109	124	133
04	351658	35453		K1	LV	-51		CHP-V			AV	103	135	116	118
04	351658	35458		K1	LV	-51		CHP-V			AV	115	116	102	111
04	351658	35463		K1	LV	-51		CHP-V			AV	127	104	75	102
05	351661	33863		K1	LV	-51		CHP-V			AV	76	132	205	138
05	351661	34106		K1	LV	-51		CHP-V			AV	202	107	120	143
05	351664	32679		K1	LV	-51		CHP-V			AV	105	205	204	171
05	351664	32686		K1	LV	-51		CHP-V			AV	197	222	204	208
05	351664	32697		K1	LV	-51		CHP-V			AV	128	117	208	151
05	351664	32700		K1	LV	-51		CHP-V			AV	115	116	125	119
05	351664	32701		K1	LV	-51		CHP-V			AV	119	103	116	113
05	351664	32814		K1	LV	-51		CHP-V			AV	91	92	164	116
06	351663	33457		K1	LV	-51		CHP-V			AV	131	126	204	154

A04 Manufacturer's mark: D H

201/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: A H B

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

PP 1

DILLINGER HÜTTE

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

A02	A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
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)	372664-05.11.10	359527-001	13/...

A05 Established Inspecting body	A06 Purchaser	A07.1 No.	B01 Product
DH	EDMONTON STEEL,EDMON	ED10553-J1010-ER	HOT ROLLED PLATES
	Final receiver EDMONTON STEEL,EDMON	A07.2 No.	

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

C40-C49 Impact test

B14 Item No.	B07.2 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=FT.LBF			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 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

B. BALDAUF
Test House Manager

A H B
Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 14/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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

C95 Ladle treatment

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

C95 Further information about ladle treatment

ITEM NO.: 01-09
CALCIUM TREATED

A04 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
Test House Manager

Inspector's stamp

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 15/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
351658	35350	K1	0,0001	0,0012	0,031
351658	35463	K1	0,0001	0,0012	0,027
351659	34696	K1	0,0001	0,0020	0,033
351659	34764	K1	0,0001	0,0019	0,033
351659	34851	K1	0,0001	0,0016	0,032
351660	34482	K1	0,0000	0,0018	0,033
351660	34646	K1	0,0001	0,0020	0,032
351661	34106	K1	0,0002	0,0019	0,033
351661	34287	K1	0,0001	0,0020	0,034

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 16/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10S53-J1010-ER

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

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

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						
351658	35350	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,07
351658	35463	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,07
351659	34696	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,11
351659	34764	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,11
351659	34851	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,08
351660	34482	K1	FO-02=	0,37	FO-51=	0,001	FO-55=	0,09
351660	34646	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,10
351661	34106	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,11
351661	34287	K1	FO-02=	0,37	FO-51=	0,000	FO-55=	0,11
351661	34310	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,10
351663	33457	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,12
351663	33690	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,12
351664	32678	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,16
351664	32686	K1	FO-02=	0,37	FO-51=	0,001	FO-55=	0,16

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

B. BALDAUF
Test House Manager

A H B
Inspector's stamp

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 17

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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.: 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

MTR APPROVED EDMONTON EXCHANGER

A04 Manufacturer's mark: DH

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: AHB

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 05.11.10 PP 1

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501090
契約番号 CONTRACT No. : 1-831-H1-5-4-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E10
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-13163 頁 PAGE : 59
発行年月日 DATE OF ISSUE : 2011-04-06
1001 2**DM***** *****CE*** E3001P07Q1 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	※3	BEND TEST 曲げ試験	LOCATION ORIENTATION ※1	SIZE ※2	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	熱処理条件 HEAT TREATMENT CONDITION ※7
																		N ×1000	TE3	TE1 ×100		SN ×100	CA ×1000	B ×10000	Ti ×100		Pcm ×100	Sol. Al ×100	Ceq.2 ×100	
06			G4225	FROM											288	AVG	16	38	144	9	2	2	2	2	0	13	0	34	41	
0.75"X120.5"X480"	2	11158	11526	275240629	TC	1	55	77	29		TL	F	290	288	156		35	2	6		0	11	0	0					
				TO 275240630										295															
																P	16	38	144	8	2	2	2	2	0	13	0		41	
																		38		6		12	0	0					
07			G4224	TESTED-PL										288	AVG	16	39	145	8	1	2	1	2	0	12	0	34	41	
0.875"X120.5"X480"	1	6509	11495	275240713	TC	1	55	77	31		TL	F	291	294	156		34	2	5		0	8	0	0					
														290															
																P	16	38	146	8	2	1	1	2	0	14	0		41	
																		36		4		11	0	0					
07			G4224	FROM										288	AVG	16	39	145	8	1	2	1	2	0	12	0	34	41	
0.875"X120.5"X480"	2	13018	11495	275240714	TC	1	55	77	31		TL	F	291	294	156		34	2	5		0	8	0	0					
				TO 275240715										290															
																P	16	38	146	8	2	1	1	2	0	14	0		41	
																		36		4		11	0	0					

注 記 NOTES ※1 Location Odentation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65$\sqrt{So}$, K: 4$\sqrt{So}$
※3 RA: 絞り Reduction of Area, YR: 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: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:板膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment
温度 Temperature C: °C F: °F

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

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

16081

君津製鉄所厚板管理グループリーダ
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX4035602082

B

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)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501090
契約番号 CONTRACT No. : 1-831-H1-5-4-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E10
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P0701 E07

証明書番号 CERTIFICATE No. : P-13163 頁 PAGE : 60
発行年月日 DATE OF ISSUE : 2011-04-06
1001 2**DM***** *****CEW**

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	※3	REQ TEST ITEM ※4	LOCATION ORIENTATION SIZE ※1	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	Ti ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
07			G4224	TESTED-PL																								
0.875"X120.5"X480"	1	6509	11497	275240716	TC	L	55	77	30			TL	F 294	305	AVG	16	39	145	8	1	2	1	2	0	12	0	34	41	
														290	156		34	2	5		0	8	0	0					
														288															
																P	16	38	146	8	2	1	1	2	0	14	0		41	
																		36		4			11	0	0				
07			G4224	FROM																								
0.875"X120.5"X480"	2	13018	11497	275240717 TO 275240718	TC	L	55	77	30			TL	F 294	305	AVG	16	39	145	8	1	2	1	2	0	12	0	34	41	
														290	156		34	2	5		0	8	0	0					
														288															
																P	16	38	146	8	2	1	1	2	0	14	0		41	
																		36		4			11	0	0				
07			G4224	TESTED-PL																								
0.875"X120.5"X480"	1	6509	11501	275240704	TC	L	55	77	29			TL	F 291	307	AVG	16	39	145	8	1	2	1	2	0	12	0	34	41	
														290	155		34	2	5		0	8	0	0					
														276															
																P	16	38	146	8	2	1	1	2	0	14	0		41	
																		36		4			11	0	0				

注、訳 NOTES ※1 Location Orientation 位置・方向 T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45°方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: $5.65\sqrt{So}$, K: $4\sqrt{So}$
※3 RA: 絞り Reduction of Area, YR: 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: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis,
※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
S月: 剪性破面率 Shear Fracture, CF: 脆性破面率 Crystallinity Fracture, LE: 横膨出 Lateral Expansion, AGS: オーステナイト粒度 Austenite Grain Size, FGS: フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment
保定 Temperature C: F:

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

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

T. Adachi
君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX4035707082

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER：HANWA CO., LTD.
注文者照合番号 REFERENCE No.：228-38501090
契約番号 CONTRACT No.：1-831-H1-5-4-AT01
商品名 COMMODITY：HOT ROLLED STEEL PLATES
規格 SPECIFICATION：ASME SA-516 GRADE 70-E10
文書番号 DOCUMENT No.：
需要家 CUSTOMER：EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No.：P-13163　頁 PAGE：61
発行年月日 DATE OF ISSUE：2011-04-06
1001
2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No.：E3001P07Q1 E07

{ AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1 }

寸法 DIMENSION mm, ':inch, '':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力 降伏点 YS 0.2% KS1	引張強さ TS KS1	伸び EL %	% ※3	RESULTS EVALUATION	LOCATION ORIENTATION ※1	SIZE	衝撃試験 IMPACT TEST 2V-50F FT.LB 平均値 AVG	個々値 EACH	HBW	C ×100 >1000	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 <1000	V ×100 <1000	TAl ×100	Ceq.1 ×100	HEAT TREATMENT CONDITION OF SUPPLY ※7
																		N	TE3	TE1		SN ×100	CA ×10000	B ×10000	TI ×100		Pcm ×100	Sol.Al ×100	Ceq.2 ×100	
07			G4224	FROM											307	AVG	16	39	145	8	1	2	1	2	0	12	0	34	41	
0.875"X120.5"X480"	2	13018	11501	275240705	TC	I	55	77	28		TL	F	291	290	155		34	2	5			8	0	0						
				TO										276																
				275240706												P	16	38	146	.8	2	1	1	2	0	14	0		41	
																		36		4			11	0	0					
07			G4224	TESTED-PL										284		AVG	16	39	145	8	1	2	1	2	0	12	0	34	41	
0.875"X120.5"X480"	1	6509	11503	275240707	TC	I	54	77	31		TL	F	286	289	154			34	2	5		0	8	0	0					
														284																
																P	16	38	146	8	2	1	1	2	0	14	0		41	
																		36		4			11	0	0					
07			G4224	FROM										284		AVG	16	39	145	8	1	2	1	2	0	12	0	34	41	
0.875"X120.5"X480"	2	13018	11503	275240708	TC	I	54	77	31		TL	F	286	289	154			34	2	5		0	8	0	0					
				TO										284																
				275240709												P	16	38	146	8	2	1	1	2	0	14	0		41	
																		36		4			11	0	0					

注：釈 NOTES ※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65$\sqrt{So}$, K: 4.$\sqrt{So}$
※3 EA: 絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:標準寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:8.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment
温度 Temperature F: °F C: °C

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

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

T. Adachi
君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

2240359070B2

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501090
契約番号 CONTRACT No. : 1-831-H1-5-4-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E10 { AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1 }
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q1 E07

証明書番号 CERTIFICATE No. : P-13163 頁 PAGE : 62
発行年月日 DATE OF ISSUE : 2011-04-06
1001 2**DM***** *****CEW**

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL	引張試験 TENSILE TEST 耐力 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	%	LOCATION ORIENTATION SIZE	衝撃試験 IMPACT TEST 2V-50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	TAl	Ceq.1	熱処理 CONDITION OF SUPPLY
07			G4224	TESTED-PL																						
0.875"X120.5"X480"	1	6509	11505	275240701	TC	55	77	29		TL	F278	283 270 282	AVG 156	16	39 34	145 2	8 5	1	2 0	1 8	2 0	0 0	12	0	34	41	
														P16	38 36	146	8 4	2	1	1 11	2 0	0 0	14	0		41	
07			G4224	FROM																						
0.875"X120.5"X480"	2	13018	11505	275240702 TO 275240703	TC	55	77	29		TL	F278	283 270 282	AVG 156	16	39 34	145 2	8 5	1	2 0	1 8	2 0	0 0	12	0	34	41	
														P16	38 36	146	8 4	2	1	1 11	2 0	0 0	14	0		41	
07			G4224	TESTED-PL																						
0.875"X120.5"X480"	1	6509	11509	275240710	TC	55	77	30		TL	F295	307 294 283	AVG 156	16	39 34	145 2	8 5	1	2 0	1 8	2 0	0 0	12	0	34	41	
														P16	38 36	146	8 4	2	1	1 11	2 0	0 0	14	0		41	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A:50mm 平形試験片 Rectangular, B:50mm 丸形試験片 Round, C:70mm 平形試験片 Rectangular, D:70mm 丸形試験片 Round, E:80mm 平形試験片 Rectangular, F:80mm 丸形試験片 Round, G:200mm, H:2", I:8", J:5.65$\sqrt{So}$, K:4$\sqrt{So}$
※3 RA:絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:指定寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:6.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR:Controlled Rolled, NIC:NIC Process/TMC Process, CLC:CLC Process/TMC Process, AR:As Rolled, TMR:TMR Process/TMC Process, NR:Normalizing Rolled
SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR:Stress Relieved/Post Weld Heat Treatment
温度 Temperature C: °C F: °F

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

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

J. Adachi

君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4035507092

B

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]

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501090
契約番号 CONTRACT No. : 1-831-H1-5-4-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E10
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-13163 頁 PAGE : 63
発行年月日 DATE OF ISSUE : 2011-04-06
1001 2**DM***** *****CEW** E3001P07Q1 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST GL ※2	耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 合否 A/R	LOCATION ORIENTATION ※1	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※4	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 ×1000	V ×100 ×1000	TAl ×100	Ceq.1 ×100	溶鋼処理 METHOD OF SUPPLY ※7
07			G4224	FROM										307	AVG		16	39	145	8	1	2	1	2	0	12	0	34	41	
0.875"X120.5"X480"	2	13018	11509	275240711	TC1	55	77	30		TL	F295		294	156			34	2	5		0	8	0	0					
				TO 275240712									283																
															P16		38	146	8	2	1	1	2	0	14	0		41	
																	36		4			11	0	0					
07			G4225	TESTED-PL									295	AVG			16	38	144	9	2	2	2	2	0	13	0	34	41	
0.875"X120.5"X480"	1	6509	11511	275240719	TC1	54	77	30		TL	F289		286	153			35	2	6		0	11	0	0					
													285																
															P16		39	145	8	2	2	2	2	0	14	0		41	
																	38		6			12	1	0					
07			G4225	FROM									295	AVG			16	38	144	9	2	2	2	2	0	13	0	34	41	
0.875"X120.5"X480"	2	13018	11511	275240720	TC1	54	77	30		TL	F289		286	153			35	2	6		0	11	0	0					
				TO 275240721									285																
															P16		39	145	8	2	2	2	2	0	14	0		41	
																	38		6			12	1	0					

注釈 NOTES ※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: $5.65\sqrt{So}$, K: $4\sqrt{So}$
※3 RA : 絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:標準寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:8.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment
温度 Temperature C: F:

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

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

J. Adachi

君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

JX4036007052

B

新日本製鐵株式會社
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
KIMITSU WORKS : 1, KIMITSU, KIMITSU-CITY, CHIBA-PREF. 299-1141 JAPAN

注　文　者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501090
契約番号 CONTRACT No. : 1-831-H1-5-4-AT01
商　品　名 COMMODITY : HOT ROLLED STEEL PLATES
規　　格 SPECIFICATION : ASME SA-516 GRADE 70-E10 (AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q1 E07

証明書番号 CERTIFICATE No. : P-13163　　頁 PAGE : 64
発行年月日 DATE OF ISSUE : 2011-04-06
1001　2**DM*****　*****CE**

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	MICRO TEST METHOD	LOCATION ORIENTATION ※1	SIZE	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 ×1000	V ×100 ×1000	Tal ×100	Ceq 1 ×100	MICRO STRUCTURE CONDITION OF FORMING ※7
07			G4225	TESTED-PL																							
0.875"X120.5"X480"	1	6509	11515	275240725	TCI	54	77	31			TLF	287	283	287 291	AVG 154	16	38	144	9	2	2	2	2	0	13	0	34	41	
																	35	2	6		0	11	0	0					
																P16	39	145	8	2	2	2	2	0	14	0		41	
																	38		6			12	1	0					
07			G4225	FROM																							
0.875"X120.5"X480"	2	13018	11515	275240726 TO 275240727	TCI	54	77	31			TLF	287	283	287 291	AVG 154	16	38	144	9	2	2	2	2	0	13	0	34	41	
																	35	2	6		0	11	0	0					
																P16	39	145	8	2	2	2	2	0	14	0		41	
																	38		6			12	1	0					
07			G4225	TESTED-PL																							
0.875"X120.5"X480"	1	6509	11519	275240722	TCI	54	77	32			TLF	289	296	283 287	AVG 155	16	38	144	9	2	2	2	2	0	13	0	34	41	
																	35	2	6		0	11	0	0					
																P16	39	145	8	2	2	2	2	0	14	0		41	
																	38		6			12	1	0					

注　釈 NOTES
※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: $5.65\sqrt{So}$, K: $4\sqrt{So}$
※3 RA : 絞り Reduction of Area, YR: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 : 3.33mm, 5 : 5.0mm, 6 : 6.67mm, 7 : 7.5mm, 8 : 6.7mm, 9 : 製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH:剪性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR : Stress Relieved/Post Weld Heat Treatment
試験 Temperature C: °C F: °F

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

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T. Adachi
君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX4036407082

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501090
契約番号 CONTRACT No. : 1-831-H1-5-4-AT01
品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E10 (AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-13163 頁 PAGE : 65
発行年月日 DATE OF ISSUE : 2011-04-06
1001 2**DM*****
*****CEW**
E3001P0701 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	引張試験 TENSILE TEST: 位置 LOCATION ORIENTATION	GL	耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	%	曲げ試験 BEND TEST	衝撃試験 IMPACT TEST: 位置 LOCATION ORIENTATION	サイズ SIZE	2V-50F FT.LB 平均値 AVG	2V-50F FT.LB 個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION %: C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	Ti	Al	Ceq.	熱処理 CONDITION OF SUPPLY
07 0.875"X120.5"X480"	2	13018	G4225 11519	FROM 275240723 TO 275240724	TC	L	54	77	32			TL	F	289	296 283 287	AVG 155	16	38 35	144 2	9 6	2	2 0	2 11	2 0	0 0	13	034	41				
																	P16	39 38	145	8 6	2	2	2 12	2 1	0 0	14	0			41		
07 0.875"X120.5"X480"	1	6509	G4225 11523	TESTED-PL 275240728	TC	L	55	77	30			TL	F	273	274 265 280	AVG 155	16	38 35	144 2	9 6	2	2 0	2 11	2 0	0 0	13	034	41				
																	P16	39 38	145	8 6	2	2	2 12	2 1	0 0	14	0			41		
07 0.875"X120.5"X480"	2	13018	G4225 11523	FROM 275240729 TO 275240730	TC	L	55	77	30			TL	F	273	274 265 280	AVG 155	16	38 35	144 2	9 6	2	2 0	2 11	2 0	0 0	13	034	41				
																	P16	39 38	145	8 6	2	2	2 12	2 1	0 0	14	0			41		

注釈 NOTES
※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: $5.65\sqrt{So}$, K: $4.\sqrt{So}$
※3 RA : 絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:標準寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:6.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis, 焼戻 Temperature
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH:破性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment

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

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

J. Adachi
君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4036207002

B

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)

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

注文者 SHIPPER : HANWA CO., LTD.
注文書照合番号 REFERENCE No. : 228-38501090
契約番号 CONTRACT No. : 1-831-H1-5-4-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E10
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q1 E07

証明書番号 CERTIFICATE No. : P-13163 頁 PAGE : 98
発行年月日 DATE OF ISSUE : 2011-04-06
1001 2**DM***** *****CEW**

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	引張試験 TENSILE TEST: 採取位置 LOCATION ORIENTATION	試験片 SPECIMEN	耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% W2	衝撃試験 IMPACT TEST: 試験片 SPECIMEN	採取位置 LOCATION ORIENTATION	試験温度 TEST TEMP. 2V-50F FT.LB 平均値 AVG	最小値 EACH	HBW	%	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	Ti ×100	Pcm ×100	Sol.Al ×100	Ceq.1 ×100	Ceq.2 ×100	熱処理 CONDITION OF SUPPLY	kg/m
20 2.25"X121"X480"	1	16809	G3952 09877	TESTED-PL 27524200	2 TCH		49	75	35		T	L	F303	303	AVG		16	38	146	6	2	2	2	1	0	12		028	41					
														310	145			34	1	5		0	13	0	0									
														295																				
																P	16	38	145	6	2	2	2	1	0	12	0		41				
																		35		5			18	2	0								
20 2.25"X121"X480"	1	16809	G3953 09894	TESTED-PL 27524201	0 TCH		53	75	36		T	L	F308	307	AVG		16	37	145	6	2	1	1	2	0	12	0	32	41				
														305	146			31	2	4		0	10	1	0									
														311																				
																P	16	37	146	6	2	1	1	2	0	11	0		41				
																		33		4			14	0	0								
TOTAL	4	52234	9128																														

HEAT TREATMENT.
PLATE & TEST SPECIMEN NORMALIZING : 910CX 10MIN.
CHARPY IMPACT TEST TEMPERATURE (SI) : - 46C
LADLE CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
PRODUCT CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
LADLE TE1 = CU+NI+CR+MO
LADLE TE3 = CR+MO
PRODUCT TE1 = CU+NI+CR+MO

注釈 NOTES
※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65√So, K: 4√So
※3 RA: 絞り Reduction of Area, YR: 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: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis,
※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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検定 Temperature C: F:

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

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T. Adachi
君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX4035070B2

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

本社 HEAD OFFICE : 〒100-8071 東京都千代田区丸の内二丁目6番1号 2-6-1, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
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文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
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証明書番号 CERTIFICATE No. : P-13163
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1001
2**DM*****
*****CEW**

寸法 DIMENSION mm,"inch,'feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※2	BEND TEST RESULT	LOCATION ORIENTATION ※1	SIZE	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
				CHEMICAL COMPOSITION % : 'N' X1000											
				CHEMICAL COMPOSITION % : 'SN' X1000											
				CHEMICAL COMPOSITION % : 'TE3' X100											
				LADLE TREATMENT : VACUUM DEGASSED											
				SULPHIDE SHAPE CONTROL											

化学成分 CHEMICAL COMPOSITION %

C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 ×1000	V ×100 ×1000	TiAl ×100	Ceq.1 ×100	CONDITION OF SURFACE
	N ×1000	TE3 ×100	TE1 ×100		SN ×1000	CA ×10000	B ×10000	TI ×100	Pcm ×100	Sol.Al ×100	Ceq.2 ×100		

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

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

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J. Adachi
君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY403960702

RJV GAS FIELD SERVICES

4901 Bruce Road Vegreville, Alberta T9C 1C3
Phone: (780) 632-7774

PURCHASE ORDER #	**2740**
DATE	July 7,2011
VENDOR	Edmonton Exchanger
DATE REQUIRED	ASAP
JOB NUMBERS	Stock Heads
VESSEL SER#	Stock Heads

Item	Quantity	Material Spec.	Description	Nom. Thickness	Min. Head	M.T.R.	Q.C. Check	Price
1	36	SA-516-70	16" sml's Heads	.875"	.812"	yes	✓	

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

RJV GAS FIELD SERVICES

4901 Bruce Road Vegreville, Alberta T9C 1C3
Phone: (780) 632-7774

PURCHASE ORDER # 2778

DATE	Oct 11,2011
VENDOR	V.E.G. Oilfield Supply
CONTACT	ALL
DATE REQUIRED	16" 3 Phase Separator
JOB NUMBERS	

Item	Quantity	Material Spec.	Description	Nom. Thickness	Min. Head	Mill Test	Q.C. Check	Price
1	24	SA-105	2" CL600 RFWN	Sch 160	-	yes	✓	
2	90'	SA-106-B	16" SMLS Pipe	.844"	-	Yes	✓	
3	48	SA-105	2" N.P.T. Full Cplg.	CL6000	-	-		
4	24	SA-105	1" N.P.T. Full Cplg.	CL6000	-	-		
5	48	SA-105	3/4" N.P.T. Full Cplg.	CL6000	-	-		
6	12	SA-105	1/2" N.P.T. Full Cplg.	CL6000	-	-		
7	12	SA-105	2" 90° Weld elbow	Sch. 160	-	-		

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.

Authorized Signature

RJV GAS FIELD SERVICES

4901 Bruce Road Vegreville, Alberta T9C 1C3
Phone: (780) 632-7774

PURCHASE ORDER # 2773

DATE Oct 7,2011

VENDOR Edmonton Exchanger

DATE REQUIRED ASAP

JOB NUMBERS Stock Heads

VESSEL SER# Stock Heads

Item	Quantity	Material Spec.	Description	Nom. Thickness	Min. Head	M.T.R.	Q.C. Check	Price
1	36	SA-516-70	16" sml's Heads	.875"	.812"	yes	✓	

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

RJV GAS FIELD SERVICES

MATERIAL INSPECTION REPORT 12340

INSPECTED Wes Markowsky

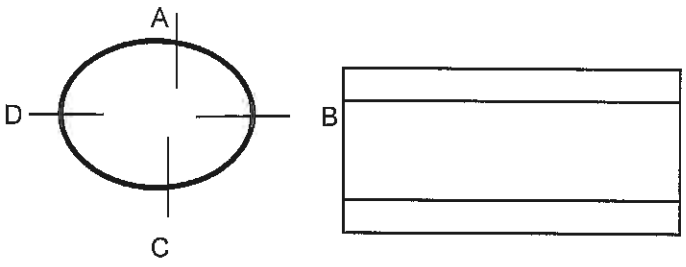
DATE

FROM PURCHASE ORDER NUMBER

4901 Bruce Road Vegreville, Alberta T9C 1C3
Phone: (780) 632-7774

MATERIAL	NOM. THICK	HEAT NUMBERS	HEAD MIN. THICK.	MATERIAL MARKINGS VERIFICATION	INSP. SURF & Edge	CONFORM Y or N	QUALITY CONTROLL MANAGER
SA-106-B	0.844	6304294		.858/.851/.866	√	Y	
SA-516-70	0.875	JK566052-A084057-2	0.8125	.841/.830/.939	√	Y	
SA-516-70	0.875	351658-35146	0.8125	.848/.831/.987	√	Y	

Heads 24" & Smaller 0° - 90°



PIPE

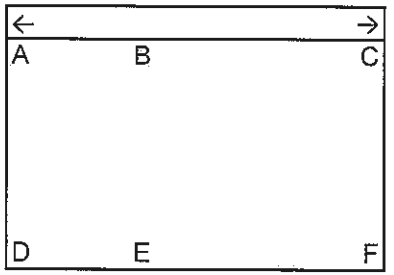


PLATE & REPADS

REMARKS:

CERTIFICATE OF COMPLIANCE

edmonton exchanger
& manufacturing ltd.

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

Customer RJV GASFIELD LTD. PO 2740 Work Order C90288 Date 2011/07/24 CofC# 26247

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

JUL 2 9 2011

edmonton exchanger
& manufacturing ltd.

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

CERTIFICATE OF COMPLIANCE

Customer RJV GASFIELD LTD. PO 2740 Work Order C90288 Date 2011/07/24 CofC# 26247

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

B

注文者 SHIPPER: HANWA CO., LTD.
注文者照合番号 REFERENCE No.: 228-38561030
契約番号 CONTRACT No.: 7-831-H1-5-3-AT01
商品名 COMMODITY: HOT ROLLED STEEL PLATES
規格 SPECIFICATION: ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No.:
需要家 CUSTOMER: EDMONTON EXCHANGER GROUP OF C-OMPANIES

新日本製鐵株式会社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

本社 HEAD OFFICE: 〒100-8071 東京都千代田区大手町二丁目6番3号 2-6-3, OTEMACHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
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証明書番号 CERTIFICATE No.: P-88316
頁 PAGE: 44
発行年月日 DATE OF ISSUE: 2007-04-19
1001
2**DM*****
*****EW***
需要家管理番号 CUSTOMER'S CONTROL No.: E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	引張試験 TENSILE TEST: LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	衝撃試験 IMPACT TEST: LOCATION ORIENTATION ※1	SIZE	2V-50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION %: C ×100 ~×1000	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 ~×1000	V ×100 ~×1000	TAl ×100	Ceq.1 ×100	N ~×1000	TE3 ~×1000	TE1 ×100	TE2 ×100	SN ~×100	CA ×10000	B ×10000	Ti ×100	Pcm ×100	Sol.Al ×100	Ceq.2 ×100	HEAT TREATMENT CONDITION OF SUPPLY ※7
07			G8173	TESTED-PL											177	144	16	37	114	7	2	18	16	1	0	1	0	30	37											
0.75"X96.5"X480"	1	4467	46862	Y74800709	TC	L	54	75	30			TL	F	176	160	146		45	1		35	0	11	1	0															
															192	146 AVG																								
																145	P15	38	113	6	2	18	16	1	0	1	0	30	36											
																		47		35		2	21	2	0															
08			G3355	TESTED-PL											185	146	15	36	115	7	2	16	18	2	0	1	0	37	37											
0.875"X96.5"X480"	1	5211	43575	Y74800804	TC	L	51	74	29			TL	F	185	207	143		35	2		36	0	14	0	0															
															164	144 AVG																								
																144	P15	37	112	6	2	16	17	2	0	1	0	36	36											
																		36		35		2	19	2	0															

13336

注釈 NOTES
※1 Location Orientation 位置・方向. T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length. A:50mm 平形試験片 Rectangular, B:50mm 丸形試験片 Round, C:70mm 平形試験片 Rectangular, D:70mm 丸形試験片 Round, E:80mm 平形試験片 Rectangular, F:80mm 丸形試験片 Round, G:200mm, H:2", I:8", J:5.65$\sqrt{So}$, K:4.$\sqrt{So}$
※3 RA:絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 P:標準寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:8.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR:Controlled Rolled, NIC:NIC Process/TMC Process, CLC:CLC Process/TMC Process, AR:As Rolled, TMR:TMR Process/TMC Process, NR:Normalizing Rolled
SH:剪性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR:Stress Relieved/Post Weld Heat Treatment
温度 Temperature °C °F

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

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

T. Adachi
君津製鉄所厚板管理グループリーダー
GROUP MANAGER
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4075B00952

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561030
契約番号 CONTRACT No. : 7-831-H1-5-3-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No. :

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 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

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

証明書番号 CERTIFICATE No. : P-88316
頁 PAGE : 45
発行年月日 DATE OF ISSUE : 2007-04-19
1001 2**DM***** *****EW***
E3001P0100 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION	GL	引張試験 TENSILE TEST 耐力 0.2% YS KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST	LOCATION ORIENTATION	SIZE	衝撃試験 IMPACT TEST 2V-50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	TAl	Ceq.1	表面状態 CONDITION OF SURFACE
																	N	TE3	TE1	TE2	SN	CA	B	TI		Pcm	Sol. Al	Ceq.2	
08			G3355	FROM													×1000	×1000	×100	×100	×100	×100	×10000					×100	※2
0.875"X96.5"X480"	2	10422	43575	Y74800805	TC	I	51	74	29		TL	F	185	207	146	15	36	115	7	21	6	18	2	0	1	037	37		
				TO										164	143		35	2		36	0	14	0	0					
				Y74800806											144 AVG														
															144	P15	37	112	6	21	6	17	2	0	1	036	36		
																	36		35		2	19	2	0					
08			G3355	TESTED-PL										131	149	15	36	115	7	21	6	18	2	0	1	037	37		
0.875"X96.5"X480"	1	5211	43584	Y74800801	TC	I	52	75	33		TL	F	184	203	149		35	2		36	0	14	0	0					
														217	149 AVG														
															149	P15	37	112	6	21	6	17	2	0	1	036	36		
																	36		35		2	19	2	0					

注釈 NOTES
※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A:50mm 平形試験片 Rectangular, B:50mm 丸形試験片 Round, C:70mm平形試験片 Rectangular, D:70mm丸形試験片 Round, E:80mm平形試験片 Rectangular, F:80mm丸形試験片 Round, G:200mm, H:2", I:8", J:5.65$\sqrt{So}$, K:4.$\sqrt{So}$
※3 RA:絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:厚さ寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:6.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR:Controlled Rolled, NIC:NIC Process/TMC Process, CLC:CLC Process/TMC Process, AR:As Rolled, TMR:TMR Process/TMC Process, NR:Normalizing Rolled
S社:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR:Stress Relieved/Post Weld Heat Treatment
調質 Temperature C:□□□°C F:□□□°F

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T. Adachi

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

AY4075908552

B

***
新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER：HANWA CO., LTD.
注文者照合番号 REFERENCE No.：228-38561030
契約番号 CONTRACT No.：7-831-H1-5-3-AT01
商品名 COMMODITY：HOT ROLLED STEEL PLATES
規格 SPECIFICATION：ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No.：
需要家 CUSTOMER：EDMONTON EXCHANGER GROUP OF COMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No.：P-88316　頁 PAGE：46
発行年月日 DATE OF ISSUE：2007-04-19
需要家管理番号 CUSTOMER'S CONTROL No.：1001　2**DM*********EW***E3003P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	鋳鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	引張試験 TENSILE TEST 採取位置 LOCATION ORIENTATION ※1	試験片 SIZE ※2	耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	曲げ試験 BEND TEST RESULT	衝撃試験 IMPACT TEST 採取位置 LOCATION ORIENTATION ※1	試験片 SIZE ※2	2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×1000	TAl ×100	Ceq.T ×100	熱処理条件 HEAT TREATMENT CONDITION ※7
08			G3355	FROM											131	149	15	36	115	7	2	16	18	2	0	1	0	37	37	
0.875"X96.5"X480"	2	10422	43584	Y74800802	TC	L	52	75	33		T	L	F	184	203	149		35	2		36	0	14	0	0					
				TO											217	149														
				Y74800803												AVG														
																149														
																	P	15	37	112	6	2	16	17	2	0	1	0	36	36	
																			36		35		2	19	2	0				
08			G3355	TESTED-PL											215	150	15	36	115	7	2	16	18	2	0	1	0	37	37	
0.875"X96.5"X480"	1	5211	43585	Y74800807	TC	L	52	74	27		T	L	F	225	222	149		35	2		36	0	14	0	0					
															239	149														
																AVG														
																149														
																	P	15	37	112	6	2	16	17	2	0	1	0	36	36	
																			36		35		2	19	2	0				

注 釈 NOTES
※1 Location Orientation 位置・方向, T：頂部 Top, B：底部 Bottom, L：圧延方向 Longitudinal, C：直角方向 Transverse, Z：板厚方向 Through Thickness, R：45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A：50mm 平形試験片 Rectangular, B：50mm丸形試験片 Round, C：70mm 平形試験片 Rectangular, D：70mm丸形試験片 Round, E：80mm 平形試験片 Rectangular, F：80mm丸形試験片 Round, G：200mm, H：2", I：8", J：5.65$\sqrt{So}$, K：4.$\sqrt{So}$
※3 RA：絞り Reduction of Area, YR：降伏比 Yield Ratio, ※4 A：合格 Acceptable, ※5 F：標準寸法 FULL SIZE, 2：2.5mm, 3：3.3mm, 4：3.33mm, 5：5.0mm, 6：6.67mm, 7：7.5mm, 8：6.7mm, 9：製品板厚 PlateThickness, ※6 P：製品分析 Product Analysis, 試験温度 Temperature °C
※7 N：焼準 Normalized, Q：焼入れ Quenched, T：焼戻し Tempered, CR：Controlled Rolled, NIC：NIC Process/TMC Process, CLC：CLC Process/TMC Process, AR：As Rolled, TMR：TMR Process/TMC Process, NR：Normalizing Rolled
SR：Stress Relieved/Post Weld Heat Treatment, AGS：オーステナイト粒度 Austenite Grain Size, FGS：フェライト粒度 Ferrite Grain Size, CF：脆性破面率 Crystallinity Fracture, LE：横膨出 Lateral Expansion, SH：延性破面率 Shear Fracture

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

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T. Adachi
君津製鉄所厚板管理グループリーダー
GROUP MANAGER
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX4075008552

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

本社 HEAD OFFICE：〒100-8071 東京都千代田区大手町二丁目6番3号 2-6-3, OTEMACHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
君津製鐵所 KIMITSU WORKS：〒299-1141 千葉県君津市君津1番地 1, KIMITSU, KIMITSU-CITY, CHIBA-PREF, 299-1141 JAPAN

注文者 SHIPPER：HANWA CO., LTD.
注文者照合番号 REFERENCE No.：228-38561030
契約番号 CONTRACT No.：7-831-H1-5-3-AT01
商品名 COMMODITY：HOT ROLLED STEEL PLATES
規格 SPECIFICATION：ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No.：
需要家 CUSTOMER：EDMONTON EXCHANGER GROUP OF COMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No.：P-88316　PAGE：47
発行年月日 DATE OF ISSUE：2007-04-19
1001
需要家管理番号 CUSTOMER'S CONTROL No.：2**DM***** *****EW*** E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	DIRECTION ※5	SIZE	衝撃試験 IMPACT TEST 2V-50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	TAl	Ceq.1	熱処理状態 CONDITION OF HEAT TREATMENT
08			G3355												215	150	15	36	115	7	216	18	2	0	1	0	37	37	
0.875"X96.5"X480"	1	5211	43585	Y74800808	TC	L	52	74	27		TL	F	225		222	149		35	2		36	0	14	0	0				
															239	149 AVG													
																149	P15	37	112	6	216	17	2	0	1	0	36	36	
																		36		35		2	19	2	0				
09			G3355	TESTED-PL											213	148	15	36	115	7	216	18	2	0	1	0	37	37	
0.875"X120.5"X480"	1	6509	43572	Y74800913	TC	L	51	74	33		TL	F	218		223	146		35	2		36	0	14	0	0				
															218	146 AVG													
																147	P15	37	112	6	216	17	2	0	1	0	36	36	
																		36		35		2	19	2	0				

注釈 NOTES
※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A:50mm 平形試験片 Rectangular, B:50mm 丸形試験片 Round, C:70mm 平形試験片 Rectangular, D:70mm 丸形試験片 Round, E:80mm 平形試験片 Rectangular, F:80mm 丸形試験片 Round, G:200mm, H:2", I:8", J:5.65$\sqrt{So}$, K:4.$\sqrt{So}$
※3 RA:絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:規格寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:8.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis, 溶接 Temperature
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR:Controlled Rolled, NIC:NIC Process/TMC Process, CLC:CLC Process/TMC Process, AR:As Rolled, TMR:TMR Process/TMC Process, NR:Normalizing Rolled
SH:延性破面率 Shear Fracture, CP:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR:Stress Relieved/Post Weld Heat Treatment

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

AY4076109552

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

本　社：〒100-8071　東京都千代田区大手町二丁目6番3号
HEAD OFFICE　2-6-3, OTEMACHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
君津製鉄所：〒299-1141　千葉県君津市君津1番地
KIMITSU WORKS　1, KIMITSU, KIMITSU-CITY, CHIBA-PREF, 299-1141 JAPAN

注文者 SHIPPER：HANWA CO., LTD.
注文者照合番号 REFERENCE No.：228-38561039
契約番号 CONTRACT No.：7-831-H1-5-3-AT01
商品名 COMMODITY：HOT ROLLED STEEL PLATES
規格 SPECIFICATION：ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No.：
需要家 CUSTOMER：EDMONTON EXCHANGER GROUP OF COMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No.：P-88316　頁 PAGE：119E
発行年月日 DATE OF ISSUE：2007-04-19
需要家管理番号 CUSTOMER'S CONTROL No.：1061　2**DM*****　*****EW****　E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL. ※1 ※2	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	LOCATION ORIENTATION SIZE ※1 ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq. 1 ×100	CONDITION OF DELIVERY ※7
														N ×1000	TE3 ×1000	TE1 ×100	TE2 ×100	SN ×10000	CA ×10000	B ×10000	Ti ×100		Pcm ×100	Sol. Al ×100	Ceq. 2 ×100	
26			G3272	TESTED-PL	TCH					TLF		120	147	13	37	115	5	21	7	37	2	7	1	2	38	38	
2.25"X97"X480"	1	13476	54018	Y74802605		52	74	36			96	100	148		36	9		63	0	8	1	1				
												68	148 AVG													
													148	P13	38	117	6	21	8	37	2	7	1	2	37	38	
															35		64		1	14	1	1				
TOTAL	300	194750																								

LADLE TREATMENT : VACUUM DEGASSED
HEAT TREATMENT.
PLATE & TEST SPECIMEN NORMALIZING : 910CX 10MIN.
CHARPY IMPACT TEST TEMPERATURE(SI) : - 46C
LADLE　CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
PRODUCT　CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
LADLE　TE2 = CU+NI+CR+MO
LADLE　TE3 = CR+MO
PRODUCT　TE1 = CU+NI+CR+MO
CHEMICAL COMPOSITION % : "N" X10000
CHEMICAL COMPOSITION % : "SN" X10000
CHEMICAL COMPOSITION % : "TE3" X100

MTR APPROVED EDMONTON EXCHANGER

注 釈 NOTES ※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A:50mm 平形試験片 Rectangular, B:50mm 丸形試験片 Round, C:70mm 平形試験片 Rectangular, D:70mm 丸形試験片 Round, E:80mm 平形試験片 Rectangular, F:80mm 丸形試験片 Round, G:200mm, H:2", I:8", J:5.65$\sqrt{So}$, K:4.$\sqrt{So}$
※3 RA:絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:相当寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:5.67mm, 7:7.5mm, 8:8.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis, 溶接 Temperature
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR:Controlled Rolled, NIC:NIC Process/TMC Process, CLC:CLC Process/TMC Process, AR:As Rolled, TMR:TMR Process/TMC Process, NR:Normalizing Rolled
SH:剪断破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR:Stress Relieved/Post Weld Heat Treatment

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T. Adachi
君津製鉄所厚板管理グループリーダー
GROUP MANAGER
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

DILLINGER HÜTTE

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

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 1/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

13727

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	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	0,7500 x	120,50000 x	480,00000	5580	N	292660	89773-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20557-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20557-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20558-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20558-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20558-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20560-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20560-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297056	20560-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30527-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30527-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30527-03	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30528-01	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30528-02	ITEM 1
01	1	0,7500 x	120,50000 x	480,00000	5580	N	297067	30528-03	ITEM 1
**	15				83700				
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20452-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20452-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20452-03	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20618-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20618-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20619-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297060	20619-02	ITEM 2

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

B. MUELLER
Test House Manager

AHDB

Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 2/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

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	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						
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297680	92858-01	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297680	92858-02	ITEM 2
02	1	0,8750 x	96,50000 x	480,00000	5214	N	297680	92858-03	ITEM 2
**	10				52140				
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20544-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20544-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20544-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20550-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20550-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20550-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20551-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20551-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20551-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20552-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20552-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20552-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20553-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20553-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20553-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20554-01	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20554-02	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20554-03	ITEM 3
03	1	0,8750 x	120,50000 x	480,00000	6510	N	297059	20555-01	ITEM 3

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. MUELLER
Test House Manager

Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ A03 Manufacturer's order/ Certificate No.: 321444-001

Sheet: 3/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

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		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							
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297059	20555-02	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297059	20555-03	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297059	20556-01	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297059	20556-02	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297059	20556-03	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297060	20453-01	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297060	20453-02	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297060	20453-03	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297060	20526-01	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297060	20526-02	ITEM 3
03	1	0,8750	x	120,50000	x	480,00000	6510	N	297060	20526-03	ITEM 3
**	30						195300				
***	55						331140				

B04 Product delivery condition

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

B06 Marking of the product

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

A04 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. MUELLER
Test House Manager

Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 4/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI — A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON — A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

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 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13	C14-C15 A % LO=5IN
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 Manufacturer's mark: D H

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: A H B

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 5/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

C30-C39 Hardness test

B14 Item. No.	B07.2 Heat No.	B07.1 Rel.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C35	C31 Individual values			C32 Mean value
01	292660	89773		K1	O	RT	HBW 10/3000	HB	145	146	145	145
01	297056	20557		K1	O	RT	HBW 10/3000	HB	147	147	146	147
01	297056	20558		K1	O	RT	HBW 10/3000	HB	146	148	149	148
01	297056	20560		K1	O	RT	HBW 10/3000	HB	147	148	148	148
01	297067	30527		K1	O	RT	HBW 10/3000	HB	150	149	146	148
01	297067	30528		K1	O	RT	HBW 10/3000	HB	145	145	145	145
02	297060	20452		K1	O	RT	HBW 10/3000	HB	148	146	149	148
02	297060	20618		K1	O	RT	HBW 10/3000	HB	148	148	147	148
02	297060	20619		K1	O	RT	HBW 10/3000	HB	151	150	152	151
02	297680	92858		K1	O	RT	HBW 10/3000	HB	142	143	146	144
03	297059	20544		K1	O	RT	HBW 10/3000	HB	151	149	147	149
03	297059	20550		K1	O	RT	HBW 10/3000	HB	147	149	146	147
03	297059	20551		K1	O	RT	HBW 10/3000	HB	149	150	148	149
03	297059	20552		K1	O	RT	HBW 10/3000	HB	148	148	146	147
03	297059	20553		K1	O	RT	HBW 10/3000	HB	148	150	146	148
03	297059	20554		K1	O	RT	HBW 10/3000	HB	148	148	146	147
03	297059	20555		K1	O	RT	HBW 10/3000	HB	150	148	147	148
03	297059	20556		K1	O	RT	HBW 10/3000	HB	148	147	148	148
03	297060	20453		K1	O	RT	HBW 10/3000	HB	149	146	148	148
03	297060	20526		K1	O	RT	HBW 10/3000	HB	148	150	149	149

A04 Manufacturer's mark: D H

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: A H B

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ A03 Manufacturer's order/ Certificate No.: 321444-001 Sheet: 6/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072
Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

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

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 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=FT.LBF			C43 Mean value
01	292660	89773		K1	LV	-51		CHP-V			AV	96	118	202	139
01	297056	20557		K1	LV	-51		CHP-V			AV	99	109	114	107
01	297056	20558		K1	LV	-51		CHP-V			AV	115	118	179	137
01	297056	20560		K1	LV	-51		CHP-V			AV	114	119	122	118
01	297067	30527		K1	LV	-51		CHP-V			AV	135	108	98	114
01	297067	30528		K1	LV	-51		CHP-V			AV	180	184	182	182
02	297060	20452		K1	LV	-51		CHP-V			AV	73	105	117	98
02	297060	20618		K1	LV	-51		CHP-V			AV	150	145	148	148
02	297060	20619		K1	LV	-51		CHP-V			AV	131	111	126	123
02	297680	92858		K1	LV	-51		CHP-V			AV	86	117	169	124
03	297059	20544		K1	LV	-51		CHP-V			AV	131	128	149	136
03	297059	20550		K1	LV	-51		CHP-V			AV	128	107	110	115
03	297059	20551		K1	LV	-51		CHP-V			AV	111	133	89	111
03	297059	20552		K1	LV	-51		CHP-V			AV	184	137	115	145
03	297059	20553		K1	LV	-51		CHP-V			AV	95	182	134	137
03	297059	20554		K1	LV	-51		CHP-V			AV	93	181	115	130
03	297059	20555		K1	LV	-51		CHP-V			AV	126	136	100	121
03	297059	20556		K1	LV	-51		CHP-V			AV	97	90	181	123
03	297060	20453		K1	LV	-51		CHP-V			AV	193	187	147	176
03	297060	20526		K1	LV	-51		CHP-V			AV	97	145	159	134

A04 Manufacturer's mark: DH

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: AHB

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 7/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

C70-C99 Chemical composition % - Heat analysis

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

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

C94 Heat analysis Carbon equivalent / Alloying restrictions

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

A04 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. MUELLER
Test House Manager

Inspector's stamp

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

A01

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A09/ Manufacturer's order/ A03 Certificate No.: 321444-001

Sheet: 8/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70

B03 Any suppl. requirements: ASME-2A:04+A05
DIL-HUE-2:R21-2006-04-27

C95 Ladle treatment

ITEM NO.: 01-03
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
292660	89773	K1	0,172	0,362	1,17	0,007	0,0005	0,0048	0,049	0,027	0,011	0,047	0,026	0,001	0,000	0,001
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.	C01	TI	B
292660	89773	K1	0,002	0,0002
297056	20560	K1	0,003	0,0003
297059	20553	K1	0,002	0,0000
297060	20618	K1	0,003	0,0000
297067	30528	K1	0,002	0,0001
297680	92858	K1	0,002	0,0000

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01				
292660	89773	K1	FO-02=	0,38	FO-55=	0,11
297056	20560	K1	FO-02=	0,38	FO-55=	0,10
297059	20553	K1	FO-02=	0,39	FO-55=	0,09
297060	20618	K1	FO-02=	0,39	FO-55=	0,10

A04 Manufacturer's mark: DH

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: AHB

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 264364-11.07.07

A08/ Manufacturer's order/ A09 Certificate No.: 321444-001 Sheet: 9

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 70072

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10435-J1010-LG

B01 Product: 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

MTR APPROVED EDMONTON EXCHANGER

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

B. MUELLER
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 12.07.07 KW 1

No.10040967

QR/C07E05

收货单位：
CUSTOMER：
ORDER NO. 8155-V

合同编号：
CONTRACT No.：
07WYWCV-54

技术条件：
TECHNICAL CONDITION：
ASTM A516 Gr.70/ASME A516 Gr.70 (EDITION 2001+2003A)

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

质量证明书
QUALITY CERTIFICATE

地址：中国河南舞钢 邮编：462500 电话(Tel)：0375-8111264
ADDRESS: WUGANG, HENAN, CHINA ZIPCODE: 462500 传真(Fax)：0375-8111269

证明书号：
CERTIFICATE NO.：07K3439

许可证号：
EXEQUATUR NO.：

车号：
TRAIN NO.：

14028

钢号 STEEL GRADE	炉号 HEAT NO.	批号 BATCH NO.	尺寸 DIMENSIONS Inches	块数 PCS	重量 WEIGHT MT	化学成份 0.001% CHEMICAL COMPOSITION C	Si	Mn	P	S	Cr	Al	Mo	Ti	Cu	Nb	Ni	V	N	B	Ceq	拉力试验 TENSILE Re (Kgf)	Rm (Kgf)	A %	弯曲试验 BEND TEST 结果	方向	角度	冲击试验 IMPACT 'P	ft-lbf	方向	超声波试验 ULTRASONIC TEST	硬度 Hardness HB
AS16Gr.70/SAS16Gr.70	7204628N	CA724877	0.875*96.500*480.000	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	131 152 141	横	ASTM A435 PASS	0
AS16Gr.70/SAS16Gr.70	7205648N	CA727726	0.875*96.500*480.000	1	5.214	150	260	1120	10	3	60	26	19	2	80	1	40	5	4.8	0.2		54	76	36.0 (A50)				-50.8	111 95 104	横	ASTM A435 PASS	0
AS16Gr.70/SAS16Gr.70	7206179N	CA729348	0.875*96.500*480.000	1	5.214	160	310	1100	9	3	80	24	22	3	90	1	210	4	4.9	0.4		53	75	36.0 (A200)				-50.8	128 114 100	横	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：CONDITION OF SUPPLY： 正火 NORMALIZED

LOT:

备注：1.PRIME QUALITY, NEWLY PRODUCED, HOT ROLLED KILLED STEEL P.V.Q. 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, NORMALISED. WITH CHARPY V-NOTCH TEST TO A20 CAT.IV. -50F CHARPY V NOTCH IMPACT TEST HAS BEEN PERFORMED AND PROVIDED FOR REFERENCE ONLY. 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.INVOICING ON NOMINAL THEORETICAL WEIGHT OF 7.85 KGS/DM3. 6.COLOR CODE: YELLOW/WHITE/YELLOW COLOR STRIPE CODE. 7.INFORMATION ON STEEL PLATE NORMALISING CYCLE: (1).SOAKING TEMPERATURE: 900°C +/-10°C. (2).SOAKING TIME: 1.5MINUTES/MM. (3).COOLING MEANS: AIR COOLING. 8.QUALITY CERTIFICATE ISSUED AS PER EN10204/3.1B.Sn:4

Quality certificate according to EN 10204:2004/3.1

质量检验负责人：
PERSON - IN - CHARGE OF QUALITY EXAMINATION： 吴永斌

判定员：
QUALITY CONTROL INSPECTOR： 武发宇

审核员：
QUALITY CONTROL CHECKER： 尚玲

质量证明专用章
舞阳钢铁有限责任公司 (1)

日期：月 月 年
DATE: 12MONTH 18DAY 2007YEAR

注：1.本质量证明书无产品质量证明专用章无效。
2.证书复印件无效，涂改处必须加盖判定员专用章。

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 special seal of quality control inspector.

MTR APPROVED EDMONTON EXCHANGER

舞阳钢铁有限责任公司

WUYANG IRON AND STEEL CO., LTD

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

TO:	Wirth Steel Shanghai	E-mail:	wgleco66@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL.:	0086-375-8111899
FAX:	021-64153908	FAX:	0086-376-8112634
DATE:	February 12, 2008	PAGE:	1/1

RE: Certificate for PO#8155-V

CERTIFICATION

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

Wuyang Iron And Steel Co., Ltd.

February 12, 2008

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

Authorised Signature(s)

MTR APPROVED
EDMONTON EXCHANGE

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:	wgieco66@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

Authorised signature(s)

No. 10040966

QR/C07E05

收 货 单 位：
CUSTOMER：

ORDER NO. 8155-Y

合 同 编 号：
CONTRACT No.：

07WYWCV-54

技 术 条 件：
TECHNICAL CONDITION：

ASTM A516 Gr.70/ASME A516 Gr.70 (EDITION 2001+2003A)

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

质 量 证 明 书
QUALITY CERTIFICATE

地 址：中国河南舞钢 邮 编：462500 电话(Tel)：0375-8111264
ADDRESS: WUGANG, HENAN CHINA ZIPCODE：462500 传真(Fax)：0375-8111269

证 明 书 号：
CERTIFICATE NO.：07K3438

许 可 证 号：
EXEQUATUR NO.：

车 号：
TRAIN NO.：

14029

钢号 STEEL GRADE	炉批号 HEAT NO.	批号 BATCH NO.	尺寸 DIMENSIONS Inches	块数 PCS	重量 WEIGHT MT	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 Hardness HB
						C	Si	Mn	P	S	Cr	Al	Mo	Ti	Cu	Nb	Ni	V	N	B	Ceq	Re (Ksi)	Rm (Ksi)	A %	结果	方向	角度	T	头 lbf	方向		
A516Gr.70/SA516Gr.70	7204842N	CA723359	0.875*96.500*480.000	2	10.428	190	250	1110	11	3	60	44	19	2	80	14	160	3	4.7	0.4		57	78	32.0 (A50)				-50.8	122 117 116	纵	ASTM A435 PASS	0
A516Gr.70/SA516Gr.70	7204842N	CA723360	0.875*96.500*480.000	1	5.214	190	250	1110	11	3	60	44	19	2	80	14	160	3	4.7	0.4		57	78	34.0 (A50)				-50.8	121 153 142	纵	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.Q. 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, NORMALISED. WITH CHARPY V-NOTCH TEST TO A20 CAT.IV. -50F CHARPY V NOTCH IMPACT TEST HAS BEEN PERFORMED AND PROVIDED FOR REFERENCE ONLY. 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. INVOICING ON NOMINAL THEORETICAL WEIGHT OF 7.85 KGS/DM3. 6. COLOR CODE: YELLOW/WHITE/YELLOW COLOR STRIPE CODE. 7. INFORMATION ON STEEL PLATE NORMALISING CYCLE： (1). SOAKING TEMPERATURE: 900°C +/-10°C. (2). SOAKING TIME: 1. 5MINUTES/MM. (3). COOLING MEANS; AIR COOLING. 8. QUALITY CERTIFICATE ISSUED AS PER EN10204/3.1B. Sn:4

Quality certificate according to EN 10204:2004/3.1

质量检验负责人：
PERSON - IN - CHARGE OF QUALITY EXAMINATION： 吴永斌

判 定 员：
QUALITY CONTROL INSPECTOR： 武发宇

审 核 员：
QUALITY CONTROL CHECKER： 尚 玲

证书专用章
SEAL OF CERTIFICATE

日期：月 日 年
DATE：10MONTH 13DAY 2010YEAR

注：1. 本质量证明书无产品质量证明专用章无效。
2. 证书复印件无效，涂改处必须加盖判定员专用章。

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 special seal of quality control inspector.

MTR APPROVED
EXHAUSTION EXCHANGER

舞阳钢铁有限责任公司

WUYANG IRON AND STEEL CO., LTD

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

TO:	Wirth Steel Shanghai	E-mail:	wgleco66@vip.163.com
ATTN:	Mr. Gong Chenghua	TEL:	0086-375-8111899
FAX:	021-64153908	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

Authorised signature(s)

BTR APPROVED EDMONTON EXCHANGER

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:	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

Authorised signature(s)

POSCO Mill Test Certificate/검사증명서

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

Order No./계약번호:0004096698
PO No./주문번호:E10707 (ASME2004EDITION)
Supplier/주문자:DAE WOO INTERNATIONAL CORP.
Commodity/품명:HR STEEL PLATE (EN10204 3.1B)
Customer/고객사:EDMONTON EXCHANGER
Spec & Type/규격:ASME SA516-70 AND SA 20(ASME2004EDITION)

15441

Size/치수	Product No. 제품번호	Quantity 수량	Weight 중량 (kg) (LBS)	Heat No. 제강번호	POSITION	Tensile/인장시험 YP (KSI)	TS	EL (%)	Impact/충격시험 V Notch, -50°F Energy (FT-LBS)	SF (%)	DIVISION	Chemical Composition/화학성분(%) C -4	Si -3	Mn -3	P -4	S -4	Cr -2	Ni -2	B -4	Cu -3	Mo -2	Nb -3	Ti -3	V -3	Sol.Al -3
0.625"x120.5"x480"	PB86795801-5804	4	18,600 41,004	SB69538	T	54.7	80.2	29	1:136 2:153 3:150 A:147		L	1749	366	1164	64	23	2	27	Tr	91	Tr	Tr	2	18	35
*** Sub Total (020) ***		30	139,500 (kg)			307,540 (LBS)																			
*** HEAT TREATMENT ==> Normalized : 891°C 30min. ***																									
0.875"x120.5"x480"	PB86515901-5903	3	19,536 43,068	SB69534	T	51.5	77.3	30	1:159 2:149 3:151 A:153		L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
0.875"x120.5"x480"	PB86515801	1	6,512 14,356	SB69534	T	50.8	78.6	28	1:134 2:125 3:132 A:131		L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
0.875"x120.5"x480"	PB86515803	1	6,512 14,356	SB69534	T	50.8	78.6	28	1:134 2:125 3:132 A:131		L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
0.875"x120.5"x480"	PB86979101-9103	3	19,536	SB69534	T	52.2	78.9	30	1:143		L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34

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

A) This material was producted under a quality system manual Rev.7 dated Sept.12,2008 and PQG01 Rev.0 dated JUL.01,2006 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3800 and(or) KEPIC MNA/ SNA4300.
B) No repair welding was performed to the products.
C) The product numbers listed on this test report identifies the material
We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.
This material is fine grained steel.
* This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

M.S. JANG

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

Chief of material testing section Man Soo, Jang

POSCO Mill Test Certificate/검사증명서

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

Order No./계약번호:0004096698
PO No./주문번호:E10707
(ASME2004EDITION)
Supplier/주문자:DAE WOO INTERNATIONAL CORP.
Commodity/품명:HR STEEL PLATE (EN10204 3.1B)
Customer/고객사:EDMONTON EXCHANGER
Spec & Type/규격:ASME SA516-70 AND SA 20(ASME2004EDITION)

Size/치수	Product No. 제품번호	Quantity 수량	Weight 중량 (kg) (LBS)	Heat No. 제강번호	POSITION	Tensile/인장시험 YP (KSI)	TS	EL (%)	Impact/ 충격시험 V-Notch -50°F Energy (FT-LBS)	SF (%)	DIV.	Chemical Composition/화학성분(%) C -4	Si -3	Mn -3	P -4	S -4	Cr -2	Ni -2	B -4	Cu -3	Mo -2	Nb -3	Ti -3	V -3	Sol-Al -3
			43,068						2:136																
									3:147																
									A:142																
0.875"x120.5"x480"	PB86957301-7303	3	19,536	SB69534	T	51.6	78.5	29	1:116		L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
			43,068						2:166																
									3:128																
									A:136																
0.875"x120.5"x480"	PB86950101-0103	3	19,536	SB69534	T	51.9	78.9	29	1:133		L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
			43,068						2:133																
									3:159																
									A:142																
0.875"x120.5"x480"	PB86950001-0003	3	19,536	SB69534	T	51.2	78.2	30	1:98		L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
			43,068						2:128																
									3:136																
									A:121																
0.875"x120.5"x480"	PB86216401-6403	3	19,536	SB69538	T	51.2	78.0	30	1:159		L	1749	366	1164	64	23	2	27	Tr	91	Tr	Tr	2	18	35
			43,068						2:150																
									3:141																
									A:150																

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

A) This material was producted under a quality system manual Rev.7 dated Sept.12,2008 and PQG01 Rev.0 dated JUL.01,2006 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3800 and(or) KEPIC MNA/ SNA4300.
B) No repair welding was performed to the products.
C) The product numbers listed on this test report identifies the material.
- We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.
This material is fine grained steel.
* This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

M.S. JANG

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

Chief of material testing section Man Soo, Jang

POSCO Mill Test Certificate/검사증명서

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

Order No./계약번호:0004096698
PO No./주문번호:E10707
Supplier/주문자:DAE WOO INTERNATIONAL CORP.
Commodity/품명:HR STEEL PLATE (EN10204 3.1B) (ASME2004EDITION)
Customer/고객사:EDMONTON EXCHANGER
Spec & Type/규격:ASME SA516-70 AND SA 20(ASME2004EDITION)

Size/치수	Product No. 제품번호	Quantity 수량	Weight 중량 (kg) (LBS)	Heat No. 제강번호	Position	Tensile/인장시험 YP (KSI)	TS	EL (%)	Impact/ 충격시험 V Notch -50°F Energy (FT-LBS)	SF (%)	Division	Chemical Composition/화학성분(%) C -4	Si -3	Mn -3	P -4	S -4	Cr -2	Ni -2	B -4	Cu -3	Mo -2	Nb -3	Ti -3	V -3	Sol-Al -3
*** Sub Total (030) ***		20	130,240 (kg)			287,126 (LBS)																			
*** HEAT TREATMENT ==> Normalized : 891℃ 46min. ***																									
1"x96.5"x480"	PB86433101-3102	2	11,916 26,270	SB69529	T	53.1	77.7	31	1:119 2:125 3:83 A:109		L	1872	342	1170	99	29	2	26	Tr	140	Tr	1	1	17	28
1"x96.5"x480"	PB86397202-7203	2	11,916 26,270	SB69529	T	52.6	77.5	31	1:128 2:115 3:127 A:123		L	1872	342	1170	99	29	2	26	Tr	140	Tr	1	1	17	28
1"x96.5"x480"	PB86163401-3403	3	17,874 39,405	SB69529	T	53.1	79.2	30	1:109 2:125 3:122 A:119		L	1872	342	1170	99	29	2	26	Tr	140	Tr	1	1	17	28
1"x96.5"x480"	PB86155501-5503	3	17,874 39,405	SB69529	T	53.5	79.6	33	1:122 2:124 3:134 A:127		L	1872	342	1170	99	29	2	26	Tr	140	Tr	1	1	17	28
1"x96.5"x480"	PB86210801-0803	3	17,874	SB69538	T	51.1	76.5	32	1:103		L	1749	366	1164	64	23	2	27	Tr	91	Tr	Tr	2	18	35

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

A) This material was producted under a quality system manual Rev.7. dated Sept.12,2008 and PQG01 Rev.0 dated JUL.01,2008 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3800 and(or) KEPIC MNA/ SNA4300.
B) No repair welding was performed to the products.
C) The product numbers listed on this test report identifies the material
- We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.
This material is fine grained steel.
* This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

M.S. JANG

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

Chief of material testing section Man Soo, Jang

POSCO Mill Test Certificate/검사증명서

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

Order No./계약번호:0004096698
PO No./주문번호:E10707
Supplier/주문자:DAE WOO INTERNATIONAL CORP.
Commodity/품명:HR STEEL PLATE (EN10204 3.1B)
Customer/고객사:EDMONTON EXCHANGER
Spec & Type/규격:ASME SA516-70 AND SA 20(ASME2004EDITION)
(ASME2004EDITION)

Size/치수	Product No. 제품번호	Quantity 수량	Weight 중량 (kg) (LBS)	Heat No. 제강번호	POSITION	Tensile/인장시험 YP (KSI)	TS	EL (%)	Impact/충격시험 V Notch -50°F Energy (FT-LBS)	SF (%)	DIVISION	Chemical Composition/화학성분(%) C -4	Si -3	Mn -3	P -4	S -4	Cr -2	Ni -2	B -4	Cu -3	Mo -2	Nb -3	Ti -3	V -3	Sol-Al -3
1.5"x121"x480"	PB861B0801	1	11,207 24,707	SB69534	T	50.3	75.1	32	1:130 2:135 3:134 A:133		L	1757	340	1174	63	25	2	25	Tr	96	Tr	1	1	18	34
*** Sub Total (080) ***		12	134,484 (kg)			296,482 (LBS)																			
*** HEAT TREATMENT ==> Normalized : 891°C 71min. ***																									
*** Lot Total ***		170	1,004,694 (kg)			2,214,938 (LBS)						* LOT NO ==> VACUUM DEGASSED													
*** Grade Total ***		170	1,004,694 (kg)			2,214,938 (LBS)						CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5													
*** Grand Total ***		170	1,004,694 (kg)			2,214,938 (LBS)																			
									== Last Item ==																

MTR APPROVED EDMONTON EXCHANGER

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

A) This material was producted under a quality system manual Rev.7 dated Sept.12,2008 and PQG01 Rev.0 dated JUL.01.2005 audited and approved by customer as conforming to the requirements of ASME Sec. III NCA-3800 and(or) KEPIC MNA/ SNA4300.
B) No repair welding was performed to the products.
C) The product numbers listed on this test report identifies the material
- We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.
This material is fine grained steel.
* This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

M. S. JANG

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

Chief of material testing section Man Soo, Jang

posco
소력없이 세상은 움직입니다
www.posco.co.kr

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

To : EDMONTON EXCHANGER GROUP OF COMPANIES
(5545 89 STREET EDMONTON ALBERTA CANADA T6E 5W9)
Attn.: MR. ERNEST REIMER
Cc :
Subject : Confirmation letter for Nb, Mo, B composition with Order No 0004096698, 0004005387

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

Order No	Heat No	C (%)	Nb (%)	B (ppm)	Mo (%)
0004096698-010 ~ 080 0004005387-010	SB62646	0.179	0.001	1	0.01
	SB62742	0.1841	0.001	0	0
	SB62745	0.1788	0.001	0	0.01
	SB69529	0.1872	0.001	0	0
	SB69532	0.1771	0.001	0	0
	SB69534	0.1757	0.001	0	0
	SB69536	0.1749	0	0	0
	SB71274	0.1792	0.001	0	0

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

Tel : 82-2-3457-0783, M.P:82-80-11-9377-8336
Thanks in advance with best regards
Yours sincerely,,

Date : 28th . June . 2010

POSCO
CEO Joon-Yang Chung
Joon-Yang Chung
posco
#1, Goedong, Pohang-City,
Gyeng Sang Buk-Do, Korea

발송 NO. 2010.06.28 (주)포스코 서울사무소

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: 1/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

15711

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
				INCH							
01	1	0,6250	x	120,50000	x	480,00000	4650	N	348840	11315-01	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350041	63961-01	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350041	63961-02	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	17648-01	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	17648-02	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	17648-03	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	17724-01	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	17724-02	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	17724-03	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	20921-01	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	20921-02	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	20921-03	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	21295-01	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	21295-02	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	21295-03	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	21306-02	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	21306-03	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	21322-01	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	21322-02	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350399	21322-03	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350405	39539-01	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350405	39539-02	
01	1	0,6250	x	120,50000	x	480,00000	4650	N	350405	39694-02	

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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/ A03 Manufacturer's order/ Certificate No.: 357359-002 Sheet: 2/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. EDI0551-J1010-ER

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

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

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
			INCH						
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39694-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39715-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39774-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39774-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39774-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39799-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39799-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39799-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39959-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39959-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39959-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39965-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	350405	39965-02	
**	36				167400				
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15513-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15513-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15513-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15526-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15526-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15526-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15608-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15610-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15610-02	

A04 DH 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
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 3/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON — A07.1 No.: ED10551-J1010-ER

Final receiver: EDMONTON STEEL, EDMON — A07.2 No.:

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

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
			INCH						
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15610-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15626-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15626-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15645-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15645-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350401	15645-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350402	15169-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350402	15399-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350402	15399-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350402	15399-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39714-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39946-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39946-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39946-03	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39963-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	39963-02	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	40537-01	
02	1	0,7500 x	120,50000 x	480,00000	5580	N	350405	40537-02	
**	27				150660				
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13199-01	
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13199-02	
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13199-03	
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13308-01	

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 4/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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
			INCH						
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13308-02	
03	1	0,7500 x	150,00000 x	480,00000	6946	N	350403	13308-03	
**	6				41676				
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	11964-01	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	11964-02	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	11964-03	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	11979-01	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	11979-02	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	11979-03	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12013-01	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12013-02	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12013-03	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12280-02	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12280-03	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12638-01	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12638-02	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350403	12638-03	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350404	11955-01	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350404	11955-02	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350404	11955-03	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350405	05031-01	
04	1	0,8750 x	120,50000 x	480,00000	6510	N	350405	05031-02	
**	19				123690				

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
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: 369429-17.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 5/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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
		INCH							
05	1	0,8750 x	150,00000 x	480,00000	8104	N	350402	14854-01	
05	1	0,8750 x	150,00000 x	480,00000	8104	N	350402	14854-02	
**	2				16208				
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06356-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06356-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06357-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06357-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06357-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06943-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06943-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	06943-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07812-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07812-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07812-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07813-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07813-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	07813-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	10672-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	10672-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	10672-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	11097-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	11097-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350404	11097-03	

A04 Manufacturer's mark: DH

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: AHB

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: 369429-17.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 6/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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
		INCH							
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05063-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05063-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05063-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05064-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05064-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05064-03	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05065-01	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05065-02	
07	1	1,0000 x	96,50000 x	480,00000	5959	N	350405	05065-03	
**	29				172811				
***	119				672445				

B04 Product delivery condition

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

B06 Marking of the product

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

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

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

DILLINGER HÜTTE

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: 7/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No.: ED10551-J1010-ER

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

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

B07-B99 Further information about the product

ITEM NO.: 01-05,07-08
THICKNESS REDUCTION RATIO >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10 KSI RP02	C11 RM	C12 A % L0=BIN	C13	C14-C15
01	348840	11315		K1	Q	RT	51,3	77,6	27		
01	350041	63961		K1	Q	RT	47,9	73,1	29		
01	350399	17648		K1	Q	RT	51,3	76,6	27		
01	350399	17724		K1	Q	RT	50,5	76,3	28		
01	350399	20921		K1	Q	RT	49,9	75,7	25		
01	350399	21295		K1	Q	RT	50,8	76,4	26		
01	350399	21306		K1	Q	RT	50,5	75,8	26		
01	350399	21322		K1	Q	RT	50,3	76,3	28		
01	350405	39539		K1	Q	RT	50,9	75,8	29		
01	350405	39694		K1	Q	RT	50,5	75,0	28		
01	350405	39715		K1	Q	RT	50,2	75,4	31		
01	350405	39774		K1	Q	RT	49,7	75,3	27		
01	350405	39799		K1	Q	RT	49,6	75,0	28		
01	350405	39959		K1	Q	RT	50,3	75,8	28		
01	350405	39965		K1	Q	RT	48,7	74,7	28		
02	350401	15513		K1	Q	RT	46,7	73,7	27		
02	350401	15526		K1	Q	RT	48,3	73,5	28		
02	350401	15608		K1	Q	RT	49,0	74,2	26		
02	350401	15610		K1	Q	RT	46,7	73,5	30		
02	350401	15626		K1	Q	RT	49,2	74,2	28		

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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/ A03 Manufacturer's order/ Certificate No.: 357359-002 Sheet: 8/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

C10-C29 Tensile 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	C10 KSI RP02	C11	C12 RM	C13 A % L0=8IN	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	49,6		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 Manufacturer's mark: D H

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: A H B

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: 369429-17.09.10

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

Sheet: 9/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON — A07.1 No.: ED10551-J1010-ER

Final receiver: EDMONTON STEEL,EDMON — A07.2 No.:

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

C10-C29 Tensile 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	C10 C11 KSI RP02	C12 RM	C13	C14-C15 A % LO=5IN
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/C01	C03 Temp. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
01	348840	11315		K1	O	RT	HBW 10/3000	HB 147	149	148	148
01	350041	63961		K1	O	RT	HBW 10/3000	HB 141	143	142	142
01	350399	17648		K1	O	RT	HBW 10/3000	HB 146	147	146	146
01	350399	17724		K1	O	RT	HBW 10/3000	HB 148	146	145	146
01	350399	20921		K1	O	RT	HBW 10/3000	HB 146	145	144	145
01	350399	21295		K1	O	RT	HBW 10/3000	HB 144	144	143	144
01	350399	21306		K1	O	RT	HBW 10/3000	HB 144	143	142	143
01	350399	21322		K1	O	RT	HBW 10/3000	HB 142	142	142	142
01	350405	39539		K1	O	RT	HBW 10/3000	HB 142	142	141	142
01	350405	39694		K1	O	RT	HBW 10/3000	HB 142	142	141	142
01	350405	39715		K1	O	RT	HBW 10/3000	HB 142	142	141	142
01	350405	39774		K1	O	RT	HBW 10/3000	HB 144	145	143	144
01	350405	39799		K1	O	RT	HBW 10/3000	HB 145	145	144	145
01	350405	39959		K1	O	RT	HBW 10/3000	HB 144	145	145	145
01	350405	39965		K1	O	RT	HBW 10/3000	HB 139	139	138	139
02	350401	15513		K1	O	RT	HBW 10/3000	HB 142	142	141	142

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
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: 369429-17.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 10/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10551-J1010-ER

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

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

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. GR.F	C38 Method of test	C35 C31 Individual values			C32 Mean value
02	350401	15526		K1	O	RT	HBW 10/3000	HB	142	142	139	141
02	350401	15608		K1	O	RT	HBW 10/3000	HB	141	140	139	140
02	350401	15610		K1	O	RT	HBW 10/3000	HB	142	141	140	141
02	350401	15626		K1	O	RT	HBW 10/3000	HB	138	139	139	139
02	350401	15645		K1	O	RT	HBW 10/3000	HB	139	139	137	138
02	350402	15169		K1	O	RT	HBW 10/3000	HB	141	142	140	141
02	350402	15399		K1	O	RT	HBW 10/3000	HB	146	146	144	145
02	350405	39714		K1	O	RT	HBW 10/3000	HB	144	144	144	144
02	350405	39946		K1	O	RT	HBW 10/3000	HB	145	144	145	145
02	350405	39963		K1	O	RT	HBW 10/3000	HB	142	142	141	142
02	350405	40537		K1	O	RT	HBW 10/3000	HB	141	141	140	141
03	350403	13199		K1	O	RT	HBW 10/3000	HB	143	143	142	143
03	350403	13308		K1	O	RT	HBW 10/3000	HB	142	143	142	142
04	350403	11964		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	11979		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	12013		K1	O	RT	HBW 10/3000	HB	143	144	143	143
04	350403	12280		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	12638		K1	O	RT	HBW 10/3000	HB	141	141	142	141
04	350404	11955		K1	O	RT	HBW 10/3000	HB	141	141	141	141
04	350405	05031		K1	O	RT	HBW 10/3000	HB	144	146	144	145
05	350402	14854		K1	O	RT	HBW 10/3000	HB	148	146	145	146
07	350404	06356		K1	O	RT	HBW 10/3000	HB	142	142	141	142
07	350404	06357		K1	O	RT	HBW 10/3000	HB	139	140	139	139
07	350404	06943		K1	O	RT	HBW 10/3000	HB	142	142	142	142

A04 Manufacturer's mark: DH

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: AHB

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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

A09/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 11/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. ED10551-J1010-ER

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

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

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. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
07	350404	07812		K1	O	RT	HBW 10/3000	HB 145	145	144	145
07	350404	07813		K1	O	RT	HBW 10/3000	HB 144	145	144	144
07	350404	10672		K1	O	RT	HBW 10/3000	HB 146	144	143	144
07	350404	11097		K1	O	RT	HBW 10/3000	HB 144	144	144	144
07	350405	05063		K1	O	RT	HBW 10/3000	HB 146	147	146	146
07	350405	05064		K1	O	RT	HBW 10/3000	HB 144	144	144	144
07	350405	05065		K1	O	RT	HBW 10/3000	HB 144	144	144	144

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 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=FT.LBF			C43 Mean value
01	348840	11315		K1	LV	-51		CHP-V			AV 101	123	139	121
01	350041	63961		K1	LV	-51		CHP-V			AV 208	195	181	195
01	350399	17648		K1	LV	-51		CHP-V			AV 193	125	111	143
01	350399	17724		K1	LV	-51		CHP-V			AV 117	181	148	149
01	350399	20921		K1	LV	-51		CHP-V			AV 124	120	162	135
01	350399	21295		K1	LV	-51		CHP-V			AV 119	119	198	145
01	350399	21306		K1	LV	-51		CHP-V			AV 141	209	132	161
01	350399	21322		K1	LV	-51		CHP-V			AV 122	197	193	171
01	350405	39539		K1	LV	-51		CHP-V			AV 184	196	195	192
01	350405	39694		K1	LV	-51		CHP-V			AV 208	187	142	179
01	350405	39715		K1	LV	-51		CHP-V			AV 104	194	152	150
01	350405	39774		K1	LV	-51		CHP-V			AV 119	198	139	152
01	350405	39799		K1	LV	-51		CHP-V			AV 129	162	197	163
01	350405	39959		K1	LV	-51		CHP-V			AV 198	150	206	185

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
Test House Manager

Inspector's stamp

Date 17.09.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

BM 1

DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/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/ A03 Manufacturer's order/ Certificate No.: 357359-002 Sheet: 12/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rel.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 Mean value
01	350405	39965		K1	LV	-51		CHP-V			AV	192	147	190	176
02	350401	15513		K1	LV	-51		CHP-V			AV	128	150	127	135
02	350401	15526		K1	LV	-51		CHP-V			AV	195	209	128	177
02	350401	15608		K1	LV	-51		CHP-V			AV	137	131	130	133
02	350401	15610		K1	LV	-51		CHP-V			AV	117	193	186	165
02	350401	15626		K1	LV	-51		CHP-V			AV	122	212	190	175
02	350401	15645		K1	LV	-51		CHP-V			AV	145	207	198	183
02	350402	15169		K1	LV	-51		CHP-V			AV	159	118	201	159
02	350402	15399		K1	LV	-51		CHP-V			AV	186	164	136	162
02	350405	39714		K1	LV	-51		CHP-V			AV	144	201	116	154
02	350405	39946		K1	LV	-51		CHP-V			AV	205	124	125	151
02	350405	39963		K1	LV	-51		CHP-V			AV	119	192	124	145
02	350405	40537		K1	LV	-51		CHP-V			AV	131	131	195	152
03	350403	13199		K1	LV	-51		CHP-V			AV	120	148	117	128
03	350403	13308		K1	LV	-51		CHP-V			AV	130	188	142	153
04	350403	11964		K1	LV	-51		CHP-V			AV	192	106	181	160
04	350403	11979		K1	LV	-51		CHP-V			AV	90	142	130	121
04	350403	12013		K1	LV	-51		CHP-V			AV	136	118	146	133
04	350403	12280		K1	LV	-51		CHP-V			AV	109	187	195	164
04	350403	12638		K1	LV	-51		CHP-V			AV	114	157	116	129
04	350404	11955		K1	LV	-51		CHP-V			AV	117	127	125	123
04	350405	05031		K1	LV	-51		CHP-V			AV	157	128	190	158
05	350402	14854		K1	LV	-51		CHP-V			AV	118	125	136	126
07	350404	06356		K1	LV	-51		CHP-V			AV	131	129	145	135

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

Date 17.09.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

BM 1

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

DILLINGER HÜTTE

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: 13/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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=FT.LBF			C43 Mean value
07	350404	06357		K1	LV	-51		CHP-V			AV	114	98	153	122
07	350404	06943		K1	LV	-51		CHP-V			AV	188	108	123	140
07	350404	07812		K1	LV	-51		CHP-V			AV	190	106	128	141
07	350404	07813		K1	LV	-51		CHP-V			AV	193	118	130	147
07	350404	10672		K1	LV	-51		CHP-V			AV	55	153	145	118
07	350404	11097		K1	LV	-51		CHP-V			AV	150	204	131	162
07	350405	05063		K1	LV	-51		CHP-V			AV	101	124	122	116
07	350405	05064		K1	LV	-51		CHP-V			AV	95	146	122	121
07	350405	05065		K1	LV	-51		CHP-V			AV	88	194	125	136

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
348840	Y	0,184	0,384	1,18	0,010	0,0011	0,0063	0,044	0,010	0,053	0,030	0,001	0,000	0,001	0,003
350041	Y	0,163	0,344	1,19	0,012	0,0009	0,0071	0,037	0,014	0,048	0,045	0,001	0,000	0,001	0,003
350399	Y	0,176	0,376	1,19	0,010	0,0011	0,0075	0,046	0,015	0,055	0,049	0,001	0,000	0,001	0,003
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

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
Test House Manager

Inspector's stamp

Date 17.09.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

BM 1

DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/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: 14/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10551-J1010-ER

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

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

C70-C99 Chemical composition % - Heat analysis

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

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat										
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

A04 Manufacturer's mark: D H

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: A H B

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 15/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

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

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

B. BALDAUF
Test House Manager

A H B 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: 369429-17.09.10

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 16/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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

C70-C99 Chemical composition % - Product analysis

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

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01						
348840	11315	K1	FO-02=	0,40	FO-51=	0,001	FO-55=	0,14
350041	63959	K1	FO-02=	0,37	FO-51=	0,002	FO-55=	0,14
350041	63961	K1	FO-02=	0,37	FO-51=	0,002	FO-55=	0,14
350399	21322	K1	FO-02=	0,39	FO-51=	0,000	FO-55=	0,16
350401	15608	K1	FO-02=	0,37	FO-51=	0,001	FO-55=	0,13
350402	14890	K1	FO-02=	0,38	FO-51=	0,002	FO-55=	0,14
350402	15169	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,13

A04 Manufacturer's mark: D H

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: A H B

Date 17.09.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

BM 1

DILLINGER HÜTTE

Erläuterungen siehe Rückseite/Explications voir au verso/See reverse for explanations (www.dillinger.de/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: 17

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10551-J1010-ER

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

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 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

MTR APPROVED EDMONTON EXCHANGER

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 17.09.10 BM 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.
Customer : DAEWOO INTERNATIONAL AMERICA

Certificate No. : DP3-2-101129-057-001
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	YP ksi	TS ksi	EL %	Impact Test Sub	-50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
9.52*2451*12192 0.375"X96.5"X480" *Specimen No :DP02100303-a, DP02100303-c ** Normalized:1670°F,23min	A085441-01,02,03		2,235	J1011839	T	1	54	77	23	1	1:140 2:157 3:126 A:141	L	16	36	143	11	3	13	2	1	5	1	1	1	32		399	
	Sub Total (10)	3	6,705																									
9.52*2451*12192 0.375"X96.5"X480" *Specimen No :DP02108303-a, DP02108303-c ** Normalized:1670°F,23min	A085443-01,02,03		2,235	J1021969	T	1	54	78	22	1	1: 99 2:109 3: 62 A: 89	L	17	36	144	16	2	12	2	1	2	1	2	1	34		410	
	Sub Total (10)	3	6,705																									
9.52*2451*12192 0.375"X96.5"X480" *Specimen No :DP02103703-a, DP02103703-c ** Normalized:1670°F,23min	A085442-01,02,03		2,235	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		403	
	Sub Total (10)	3	6,705																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-002
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
9.52*2451*12192 0.375"X96.5"X480" *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 3:160 A:148	L	.16	.37	.143	.20	.4	.30	.1	.3	.2	.1	.1	.2		.34	.408	
	Sub Total (10)	1	2,235																									
9.52*3061*12192 0.375"X120.5"X480" *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	L	.16	.37	.143	.17	.3	.20	.1	.2	.1	.1	.1	.2		.31	.405	
	Sub Total (20)	2	5,580																									
9.52*3061*12192 0.375"X120.5"X480" *Specimen No :DP02071803-a, DP02071803-c ** Normalized: 1670°F,23min	A084295-01.02		2,790	JK566053	T	1	53	79	22	1	1: 87 2:108 3:132 A:109	L	.16	.37	.143	.19	.4	.30	.1	.2	.1	.1	.1	.2		.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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-003
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3.	Ceq 3	Remarks
9.52*3061*12192 0.375"X120.5"X480" *Specimen No :DP02065507-a, DP02065507-c ** Normalized: 1670°F,23min	A084296-02,03		2,790	JK566054	T	1	51	78	23	1	1:143 2:122 3:141 A:135	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (20)	2	5,580																									
12.70*2451*12192 0.5"X96.5"X480" *Specimen No :DP02204501-a, DP02204501-c ** Normalized: 1670°F,23min	A087507-01,02,03		2,980	J1775888	T	1	50	74	24		1: 81 2: 61 3: 73 A: 72	L	16	36	143	16	8	20	1	1	1	1	1	3	34		404	
	Sub Total (30)	3	8,940																									
12.70*3061*12192 0.5"X120.5"X480" *Specimen No :DP02040403-a, DP02040403-c ** Normalized: 1670°F,23min	A083738-01,02		3,721	JK566051	T	1	49	78	23		1:133 2:146 3:134 A:137	L	16	39	143	16	4	20	1	2	1	1	1	2		39	405	
	Sub Total (40)	2	7,442																									

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

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and 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.

* 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, 6-5.65√A, 7-5d, 8-4d, 9-8d
* T(S).Al : Total(Soluble) Al

Surveyor to

Surveyor to

Surveyor to

Surveyor to

Chief of Quality Control Team

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	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
12.70*3061*12192 0.5"X120.5"X480" *Specimen No :DP02072807-a, DP02072807-c ** Normalized:1670°F,28min	A084290-01,02		3,721	JK566052	T	1	52	77	24		1: 77 2:120 3: 75 A: 90	L	16	37	143	17	3	20	1	2	1	1	1	2		31	405	
	Sub Total (40)	2	7,442																									
12.70*3061*12192 0.5"X120.5"X480" *Specimen No :DP02065505-a, DP02065505-c ** Normalized:1670°F,28min	A084288-01,02		3,721	JK566054	T	1	52	78	23		1: 70 2: 81 3: 70 A: 73	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (40)	2	7,442																									
12.70*3061*12192 0.5"X120.5"X480" *Specimen No :DP02065506-a, DP02065506-c ** Normalized:1670°F,28min	A084289-01,02		3,721	JK566054	T	1	54	78	23		1:127 2:146 3:158 A:143	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (40)	2	7,442																									

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

We hereby certify that the material has been made by Basic oxygen process (Fully killed steel, Fine grain practice) and 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.

* 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=5.65√A, 7=5d, 8=4d, 9=8d
* T(S).Al : Total(Soluble) Al

Surveyor to

Surveyor to

Surveyor to

Surveyor to

Chief of Quality Control Team

ORIGINAL

MILL TEST CERTIFICATE

DONGKUK STEEL

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

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

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

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
15.88*3061*12192 0.625"X120.5"X480" *Specimen No :DP02069506-a, DP02069506-c ** Normalized:1670°F,32min	A084042-01		4,652	J2752178	T	1	49	74	24		1: 79 2: 75 3:106 A: 87	L	16	39	140	16	7	20	1	1	1	1	1	4	31		400	
	Sub Total (50)	1	4,652																									
15.88*3061*12192 0.625"X120.5"X480" *Specimen No :DP02067501-a, DP02067501-c ** Normalized:1670°F,32min	A084041-01		4,652	J2753135	T	1	47	73	24		1: 96 2: 61 3: 91 A: 83	L	15	37	143	17	11	20	1	1	1	1	1	3	31		394	
	Sub Total (50)	1	4,652																									
19.05*3061*12192 0.75"X120.5"X480" *Specimen No :DP02069504-a, DP02069504-c ** Normalized:1670°F,37min	A084024-01,02		5,580	J2752178	T	1	50	75	25		1: 92 2: 50 3: 80 A: 74	L	16	39	140	16	7	20	1	1	1	1	1	4	31		400	
	Sub Total (60)	2	11,160																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

ORIGINAL

MILL TEST CERTIFICATE

DONGKUK STEEL

Order No. : J10A400691
PO No. : LPP201009011
Commodity : STEEL PLATE
Specification : ASME SA516-70N: 2007 ED
Supplier : DONGKUK INTERNATIONAL,INC.
Customer : DAEWOO INTERNATIONAL AMERICA
Certificate No. : DP3-2-101129-057-006
Date of issue : Nov. 29, 2010

Dimension Unit inch: *, mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks.
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		1:123 2: 96 3: 94 A:104	L	16	38	144	17	4	20	1	2	1	1	1	2		35	407	
	Sub Total (60)	2	11,160																									
19.05*3061*12192 0.75"X120.5"X480" *Specimen No :DP02072805-a, DP02072805-c ** Normalized:1670°F,37min	A084062-01.02		5,580	JK566052	T	1	53	77	24		1:120 2:133 3:134 A:129	L	16	37	143	17	3	20	1	2	1	1	1	2		31	405	
	Sub Total (60)	2	11,160																									
19.05*3061*12192 0.75"X120.5"X480" *Specimen No :DP02065503-a, DP02065503-c ** Normalized:1670°F,37min	A084061-01.02		5,580	JK566054	T	1	53	77	27		1:126 2:101 3:125 A:117	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (60)	2	11,160																									

* 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.

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

* Specimen No. : a=Tension, c=Impact
* Position : T=Top, M=Middle, B=Bottom
* Division : L=Ladle Analysis, P=Product Analysis
* Sub(Sub Size, Reel 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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-007
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
19.05*3061*12192 0.75"X120.5"X480" *Specimen No :DP02065504-a, DP02065504-c ** Normalized:1670°F,37min	A084064-01,02		5,580	JK566054	T	1	53	78	24		1:115 2:116 3: 78 A:103	L	16	37	143	20	4	30	1	3	2	1	1	2		34	408	
	Sub Total (60)	2	11,160																									
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02038801-a, DP02038801-c ** Normalized:1670°F,51min	A083492-01		6,512	J2751963	T	1	45	74	26		1: 59 2: 78 3:118 A: 84	L	15	38	144	20	6	20	1	1	1	1	1	4	32		396	
	Sub Total (70)	1	6,512																									
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02069503-a, DP02069503-c ** Normalized:1670°F,51min	A084021-01,02		6,512	J2752178	T	1	45	74	27		1:125 2:118 3:113 A:119	L	16	39	140	16	7	20	1	1	1	1	1	4	31		400	
	Sub Total (70)	2	13,024																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

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

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. : DP3-2-101129-057-008
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50°F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02039303-a, DP02039303-c ** Normalized:1670°F,51min	A083493-01		6,512	J8202300	T	1	48	76	27		1: 87 2:110 3:108 A:102	L	15	38	143	17	6	20	1	1	1	1	1	3	33		404	
	Sub Total (70)	1	6,512																									
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02060901-a, DP02060901-c ** Normalized:1670°F,51min	A084056-01.02		6,512	JK566051	T	1	47	77	26		1:127 2:152 3:155 A:145	L	16	39	143	16	4	20	1	2	1	1	1	2	39		405	
	Sub Total (70)	2	13,024																									
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02072804-a, DP02072804-c ** Normalized:1670°F,51min	A084057-01.02		6,512	JK566052	T	1	51	76	27		1:151 2:151 3:146 A:149	L	16	37	143	17	3	20	1	2	1	1	1	2	31		405	
	Sub Total (70)	2	13,024																									

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10
* GL(Gauge Length, mm) : 1-200, 2-100, 3-60, 4-70, 5-50, 6-5.65√A, 7-5d, 8-4d, 9-8d
* T(S).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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

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

Dimension Unit inch: *, mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test EL %	Impact Test Sub	Impact Test -50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
22.22*3061*12192 0.875"X120.5"X480" *Specimen No :DP02071801-a, DP02071801-c ** Normalized:1670°F,51min	A084058-01,02		6,512	JK566053	T	1	48	77	26		1:135 2:149 3:138 A:141	L	16	37	143	19	4	30	1	2	1	1	1	2		39	407	
	Sub Total (70)	2	13,024																									
25.40*2451*12192 1"X96.5"X480" *Specimen No :DP02040202-a, DP02040202-c ** Normalized:1670°F,56min	A083466-01		5,958	J1774078	T	1	49	74	27		1: 58 2: 62 3: 57 A: 66	L	16	37	143	20	8	20	1	1	1	1	1	4	30		405	
	Sub Total (80)	1	5,958																									
25.40*3061*12192 1"X120.5"X480" *Specimen No :DP02072801-a, DP02072801-c ** Normalized:1670°F,56min	A084052-01		7,439	JK566052	T	1	45	75	27		1:151 2:129 3:151 A:144	L	16	37	143	17	3	20	1	2	1	1	1	2		31	405	
	Sub Total (90)	1	7,439																									

* Tensile Test Direction=Transverse
* Impact Test Direction=Longitudinal
* Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+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.

* 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, 6-5.65√A, 7-5d, 8-4d, 9-8d
* T(S).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-010
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	YP ksi	TS ksi	EL %	Impact Test Sub	-50°F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
31.75*2464*12192 1.25"X97"X480" *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	2	1	3	27		.403	
	Sub Total (100)	1	7,488																									
31.75*2464*12192 1.25"X97"X480" *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	3	33		404	
	Sub Total (100)	1	7,488																									
31.75*2464*12192 1.25"X97"X480" *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	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 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.

* 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, 6-5.65√A, 7-5d, 8-4d, 9-8d
* T(S).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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. : DP3-2-101129-057-011
Date of issue. : Nov. 29. 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	YP ksi	TS ksi	EL %	Impact Test Sub	-50 °F V Notch ft*lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
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 2:137 3:109 A:114	L	15	36	144	20	5	30	1	2	1	1	1	2		60	399	
	Sub Total (100)	1	7,488																									
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02040203-a, DP02040203-c ** Normalized:1670°F,64min	A083489-01		9,340	J1774078	T	1	47	74	28		1: 90 2: 56 3: 59 A: 58	L	16	37	143	20	8	20	1	1	1	1	1	4	30		405	
	Sub Total (110)	1	9,340																									
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02047501-a, DP02047501-c ** Normalized:1670°F,64min	A083490-01		9,340	J2751834	T	1	47	73	27		1: 92 2: 62 3: 67 A: 73	L	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)/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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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

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. : DP3-2-101129-057-012
Date of issue : Nov. 29, 2010

Dimension Unit inch: ", mm: Space	Product No	Quantity	Weight kg	Heat No	Position	Tensile Test GL	Tensile Test YP ksi	Tensile Test TS ksi	Tensile Test El. %	Impact Test Sub	Impact Test -50 °F V Notch ft-lbf	Division	C 2	Si 2	Mn 2	P 3	S 3	Cr 3	Ni 2	Cu 2	Mo 3	Nb 3	Ti 3	V 3	T.Al 3	S.Al 3	Ceq 3	Remarks
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02069502-a, DP02069502-c ** Normalized:1670°F,64min	A084020-01		9,340	J2752178	T	1	44	73	27		1: 96 2: 99 3:115 A:103	L	16	39	140	16	7	20	1	1	1	1	1	4	31		400	
	Sub Total (110)	1	9,340																									
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02021603-a, DP02021603-c ** Normalized:1670°F,64min	A082939-01		9,340	JK467027	T	1	49	75	27		1:100 2: 94 3:103 A: 99	L	16	37	143	16	5	20	1	2	1	2	2	2		42	405	
	Sub Total (110)	1	9,340																									
31.75*3073*12192 1.25"X121"X480" *Specimen No :DP02067201-a, DP02067201-c ** Normalized:1670°F,64min	A084050-01		9,340	JK467027	T	1	49	75	27		1: 82 2: 64 3: 83 A: 76	L	16	37	143	16	5	20	1	2	1	2	2	2		42	405	
	Sub Total (110)	1	9,340																									
<Grand Total>		50	298,071																									

MTR APPROVED EDMONTON EXCHANGER

* 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.

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

* Specimen No. : a-Tension, c-Impact
* Position : T-Top, M-Middle, B-Bottom
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(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).Al : Total(Soluble) Al

Surveyor to | Surveyor to | Surveyor to | Surveyor to | Chief of Quality Control Team

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: 1/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

15903

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
			INCH						
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34359-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34359-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34359-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34482-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34482-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34532-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34532-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34532-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34572-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34572-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34572-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34692-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34692-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351660	34692-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34107-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34107-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34107-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34287-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34287-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34287-03	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34331-01	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34331-02	
01	1	0,6250 x	120,50000 x	480,00000	4650	N	351661	34331-03	

A04 Manufacturer's mark: D H

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: A H B

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 2/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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
			INCH						
**	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	

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

B. BALDAUF
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 05.11.10 PP J.

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: 3/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. ED10553-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-SS

B03 Any suppl. requirements ASME-II-A:07+A09
DIL-HUE-2:R30-2010-01-31

B01-B99 Description of the product

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

A04 DH 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
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 4/...

A05 Established inspecting body: DH

A06 Purchasor: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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
			INCH						
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	34997-02	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	35145-01	
03	1	0,8750 x	120,50000 x	480,00000	6510	N	351659	35145-02	
**	20				130200				
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35403-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35450-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35450-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35453-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35453-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35458-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35458-02	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35463-01	
04	1	1,0000 x	96,50000 x	480,00000	5959	N	351658	35463-02	
**	9				53631				
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	33863-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	33863-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351661	34106-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32679-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32679-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32686-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32686-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32697-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32700-01	

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: S/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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
			INCH						
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32700-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32701-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32701-02	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32814-01	
05	1	1,0000 x	120,50000 x	480,00000	7440	N	351664	32814-02	
**	14				104160				
06	1	1,0000 x	178,00000 x	480,00000	10991	N	351663	33457-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34697-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34764-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34764-02	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34779-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34780-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34827-01	
07	1	1,1250 x	97,00000 x	480,00000	6738	N	351659	34827-02	
**	7				47166				
08	1	1,2500 x	97,00000 x	480,00000	7487	N	351664	32678-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33459-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33460-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33690-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33768-01	
09	1	1,2500 x	121,00000 x	480,00000	9339	N	351663	33771-01	
**	5				46695				
***	107				657940				

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

A01
AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 6/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10553-J1010-ER

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

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

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 MTLTV SA516 60 MTLTV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

B07-B99 Further information about the product

ITEM NO.: 01-09
THICKNESS REDUCTION RATIO >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile 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	C10 C11 KSI RP02	C12 RM	C13	C14-C15 A % L0=8IN	C14-C15 A % L0=2IN
01	351660 34359			K1	Q	RT	50,3	75,0		26	
01	351660 34482			K1	Q	RT	50,5	75,4		28	
01	351660 34532			K1	Q	RT	50,0	75,1		27	
01	351660 34572			K1	Q	RT	50,8	75,4		27	
01	351660 34692			K1	Q	RT	51,8	75,7		27	
01	351661 34107			K1	Q	RT	49,7	74,5		26	
01	351661 34287			K1	Q	RT	49,4	74,7		26	
01	351661 34331			K1	Q	RT	49,7	74,2		26	
02	351660 34360			K1	Q	RT	50,2	74,8		27	

A04 Manufacturer's mark: D H

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: A H B

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 7/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

C10-C29 Tensile 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	C10 C11 KSI RP02	C12 RM	C13	C14-C15 A % L0=8IN	C14-C15 A % L0=2IN
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 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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 05.11.10 PP 1

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

DILLINGER HÜTTE

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: 8/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

C10-C29 Tensile 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	C10 C11 KSI RP02	C12 RM	C13	C14-C15 A % L0=8IN	C14-C15 A % L0=2IN
05	351661	33863		K1	Q	RT	50,5	74,5		27	
05	351661	34106		K1	Q	RT	49,9	74,2		28	
05	351664	32679		K1	Q	RT	47,9	72,8		28	
05	351664	32686		K1	Q	RT	48,3	72,8		28	
05	351664	32697		K1	Q	RT	48,6	72,8		28	
05	351664	32700		K1	Q	RT	48,4	73,2		28	
05	351664	32701		K1	Q	RT	48,3	73,5		28	
05	351664	32814		K1	Q	RT	47,9	73,5		29	
06	351663	33457		K1	Q	RT	48,1	73,7		27	
07	351659	34697		K1	Q	RT	49,4	73,8		30	
07	351659	34764		K1	Q	RT	48,7	73,8		27	
07	351659	34779		K1	Q	RT	48,6	73,7		28	
07	351659	34780		K1	Q	RT	47,6	73,7		29	
07	351659	34827		K1	Q	RT	48,1	74,0		31	
08	351664	32678		K1	QV	RT	47,7	74,0			38
09	351663	33459		K1	QV	RT	50,6	75,4			37
09	351663	33460		K1	QV	RT	52,1	75,5			36
09	351663	33690		K1	QV	RT	47,6	74,7			35
09	351663	33768		K1	QV	RT	49,3	75,3			35
09	351663	33771		K1	QV	RT	48,6	74,8			35

A04 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
Test House Manager

Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 9/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED105S3-J1010-ER

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

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

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. GR.F	C30 Method of test	C35 C31 Individual values			C32 Mean value
01	351660	34359		K1	0	RT	HBW 10/3000	HB 149	150	149	149
01	351660	34482		K1	0	RT	HBW 10/3000	HB 149	149	149	149
01	351660	34532		K1	0	RT	HBW 10/3000	HB 150	150	150	150
01	351660	34572		K1	0	RT	HBW 10/3000	HB 150	151	149	150
01	351660	34692		K1	0	RT	HBW 10/3000	HB 150	151	150	150
01	351661	34107		K1	0	RT	HBW 10/3000	HB 149	149	148	149
01	351661	34287		K1	0	RT	HBW 10/3000	HB 150	150	150	150
01	351661	34331		K1	0	RT	HBW 10/3000	HB 148	149	148	148
02	351660	34360		K1	0	RT	HBW 10/3000	HB 149	149	149	149
02	351660	34479		K1	0	RT	HBW 10/3000	HB 150	151	151	151
02	351660	34507		K1	0	RT	HBW 10/3000	HB 151	151	150	151
02	351660	34541		K1	0	RT	HBW 10/3000	HB 148	149	148	148
02	351660	34646		K1	0	RT	HBW 10/3000	HB 149	149	149	149
02	351660	34695		K1	0	RT	HBW 10/3000	HB 150	149	149	149
02	351661	34129		K1	0	RT	HBW 10/3000	HB 149	150	148	149
02	351661	34269		K1	0	RT	HBW 10/3000	HB 149	149	149	149
02	351661	34342		K1	0	RT	HBW 10/3000	HB 149	148	148	148
03	351658	35146		K1	0	RT	HBW 10/3000	HB 149	149	148	149
03	351658	35147		K1	0	RT	HBW 10/3000	HB 151	150	149	150
03	351658	35193		K1	0	RT	HBW 10/3000	HB 147	147	146	147
03	351658	35239		K1	0	RT	HBW 10/3000	HB 150	149	149	149
03	351658	35350		K1	0	RT	HBW 10/3000	HB 148	149	148	148
03	351659	34829		K1	0	RT	HBW 10/3000	HB 147	147	146	147
03	351659	34831		K1	0	RT	HBW 10/3000	HB 152	149	149	150

A04 Manufacturer's mark: DH

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: AHB

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 10/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10553-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70 SA20-SS

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 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35	C31 Individual values			C32 Mean value
03	351659	34851		K1	O	RT	HBW 10/3000	HB	148	147	148	148
03	351659	34997		K1	O	RT	HBW 10/3000	HB	146	146	146	146
03	351659	35145		K1	O	RT	HBW 10/3000	HB	147	148	146	147
04	351658	35403		K1	O	RT	HBW 10/3000	HB	149	149	146	148
04	351658	35450		K1	O	RT	HBW 10/3000	HB	147	148	146	147
04	351658	35453		K1	O	RT	HBW 10/3000	HB	147	146	145	146
04	351658	35458		K1	O	RT	HBW 10/3000	HB	149	150	149	149
04	351658	35463		K1	O	RT	HBW 10/3000	HB	151	151	151	151
05	351661	33863		K1	O	RT	HBW 10/3000	HB	148	148	148	148
05	351661	34106		K1	O	RT	HBW 10/3000	HB	148	148	148	148
05	351664	32679		K1	O	RT	HBW 10/3000	HB	145	145	145	145
05	351664	32686		K1	O	RT	HBW 10/3000	HB	145	144	145	145
05	351664	32697		K1	O	RT	HBW 10/3000	HB	147	146	146	146
05	351664	32700		K1	O	RT	HBW 10/3000	HB	145	146	145	145
05	351664	32701		K1	O	RT	HBW 10/3000	HB	146	146	145	146
05	351664	32814		K1	O	RT	HBW 10/3000	HB	145	148	148	147
06	351663	33457		K1	O	RT	HBW 10/3000	HB	146	146	145	146
07	351659	34697		K1	O	RT	HBW 10/3000	HB	145	146	145	145
07	351659	34764		K1	O	RT	HBW 10/3000	HB	146	146	147	146
07	351659	34779		K1	O	RT	HBW 10/3000	HB	146	146	146	146
07	351659	34780		K1	O	RT	HBW 10/3000	HB	145	145	144	145
07	351659	34827		K1	O	RT	HBW 10/3000	HB	145	145	145	145
08	351664	32678		K1	O	RT	HBW 10/3000	HB	146	145	145	145
09	351663	33459		K1	O	RT	HBW 10/3000	HB	150	150	154	151

A04 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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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/ A03 Manufacturer's order/ Certificate No.: 359527-001 Sheet: 11/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:07+A09
DIL-HOE-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. GR.F	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. 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 Mean value
01	351660	34359		K1	LV	-51		CHP-V			AV	132	130	139	134
01	351660	34482		K1	LV	-51		CHP-V			AV	140	204	201	182
01	351660	34532		K1	LV	-51		CHP-V			AV	113	122	111	115
01	351660	34572		K1	LV	-51		CHP-V			AV	131	209	122	154
01	351660	34692		K1	LV	-51		CHP-V			AV	163	197	131	164
01	351661	34107		K1	LV	-51		CHP-V			AV	164	209	204	192
01	351661	34287		K1	LV	-51		CHP-V			AV	159	122	218	166
01	351661	34331		K1	LV	-51		CHP-V			AV	209	128	200	179
02	351660	34360		K1	LV	-51		CHP-V			AV	111	209	92	137
02	351660	34479		K1	LV	-51		CHP-V			AV	187	196	131	171
02	351660	34507		K1	LV	-51		CHP-V			AV	197	159	148	168
02	351660	34541		K1	LV	-51		CHP-V			AV	154	147	206	169
02	351660	34646		K1	LV	-51		CHP-V			AV	198	130	191	173
02	351660	34695		K1	LV	-51		CHP-V			AV	110	190	191	164
02	351661	34129		K1	LV	-51		CHP-V			AV	192	104	143	146
02	351661	34269		K1	LV	-51		CHP-V			AV	189	96	98	128
02	351661	34342		K1	LV	-51		CHP-V			AV	171	215	195	194

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 05.11.10 PP 1

DILLINGER HÜTTE

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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/ A09 Certificate No.: 359527-001 Sheet: 12/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10553-J1010-ER

Final receivar: EDMONTON STEEL,EDMON A07.2 No.:

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

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=FT.LBF			C43 Mean value
03	351658	35146		K1	LV	-51		CHP-V			AV	200	128	114	147
03	351658	35147		K1	LV	-51		CHP-V			AV	140	195	112	149
03	351658	35193		K1	LV	-51		CHP-V			AV	200	51	92	114
03	351658	35239		K1	LV	-51		CHP-V			AV	130	151	120	134
03	351658	35350		K1	LV	-51		CHP-V			AV	170	203	202	192
03	351659	34829		K1	LV	-51		CHP-V			AV	119	200	122	147
03	351659	34831		K1	LV	-51		CHP-V			AV	116	201	129	149
03	351659	34851		K1	LV	-51		CHP-V			AV	89	209	188	162
03	351659	34997		K1	LV	-51		CHP-V			AV	193	162	104	153
03	351659	35145		K1	LV	-51		CHP-V			AV	92	198	209	166
04	351658	35403		K1	LV	-51		CHP-V			AV	124	207	190	174
04	351658	35450		K1	LV	-51		CHP-V			AV	165	109	124	133
04	351658	35453		K1	LV	-51		CHP-V			AV	103	135	116	118
04	351658	35458		K1	LV	-51		CHP-V			AV	115	116	102	111
04	351658	35463		K1	LV	-51		CHP-V			AV	127	104	75	102
05	351661	33863		K1	LV	-51		CHP-V			AV	76	132	205	138
05	351661	34106		K1	LV	-51		CHP-V			AV	202	107	120	143
05	351664	32679		K1	LV	-51		CHP-V			AV	105	205	204	171
05	351664	32686		K1	LV	-51		CHP-V			AV	197	222	204	208
05	351664	32697		K1	LV	-51		CHP-V			AV	128	117	208	151
05	351664	32700		K1	LV	-51		CHP-V			AV	115	116	125	119
05	351664	32701		K1	LV	-51		CHP-V			AV	119	103	116	113
05	351664	32814		K1	LV	-51		CHP-V			AV	91	92	164	116
06	351663	33457		K1	LV	-51		CHP-V			AV	131	126	204	154

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
Test House Manager

Inspector's stamp

Date 05.11.10

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+A1:1995 + AS PER ISO 10474:1991
MATERIAL TEST REPORT (MTR)

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

A08/ A03 Manufacturer's order/ Certificate No.: 359527-001 Sheet: 13/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10553-J1010-ER

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

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

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=FT.LBF			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: D H

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: A H B

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 05.11.10 PP 1

DILLINGER HÜTTE

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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: 14/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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

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

C95 Ladle treatment

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

C95 Further information about ladle treatment

ITEM NO.: 01-09
CALCIUM TREATED

A04 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
Test House Manager

Inspector's stamp

Date 05.11.10 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+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: 15/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No.: ED10553-J1010-ER

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

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

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

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
351658	35350	K1	0,0001	0,0012	0,031
351658	35463	K1	0,0001	0,0012	0,027
351659	34696	K1	0,0001	0,0020	0,033
351659	34764	K1	0,0001	0,0019	0,033
351659	34851	K1	0,0001	0,0016	0,032
351660	34482	K1	0,0000	0,0018	0,033
351660	34646	K1	0,0001	0,0020	0,032
351661	34106	K1	0,0002	0,0019	0,033
351661	34287	K1	0,0001	0,0020	0,034

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
Test House Manager

Inspector's stamp

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

PP 1

DILLINGER HÜTTE

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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: 16/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SAS16-70 SA20-S5

B03 Any suppl. requirements: ASME-II-A:07+A09
DIL-HUE-2:R30-2010-01-31

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	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						
351658	35350	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,07
351658	35463	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,07
351659	34696	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,11
351659	34764	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,11
351659	34851	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,08
351660	34482	K1	FO-02=	0,37	FO-51=	0,001	FO-55=	0,09
351660	34646	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,10
351661	34106	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,11
351661	34287	K1	FO-02=	0,37	FO-51=	0,000	FO-55=	0,11
351661	34310	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,10
351663	33457	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,12
351663	33690	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,12
351664	32678	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,16
351664	32686	K1	FO-02=	0,37	FO-51=	0,001	FO-55=	0,16

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

Date 05.11.10

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 17

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10553-J1010-ER

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

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.: 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

MTR APPROVED EDMONTON EXCHANGE

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

Date 05.11.10

A07 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 1/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70 SA20-S5

B03 Any suppl. requirements: ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

16037

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
			INCH						
01	1	0,5000 x	172,00000 x	344,00000	3806	N	351665	60830-01	
01	1	0,5000 x	172,00000 x	344,00000	3806	N	351665	60830-02	
**	2				7612				
02	1	0,6250 x	146,00000 x	438,00000	5141	N	354638	93854-01	
02	1	0,6250 x	146,00000 x	438,00000	5141	N	355728	93391-02	
02	1	0,6250 x	146,00000 x	438,00000	5141	N	355728	93391-03	
**	3				15423				
03	1	0,6250 x	172,00000 x	344,00000	4757	N	354638	60834-02	
05	1	0,8750 x	150,00000 x	450,00000	7598	N	355728	93060-01	
05	1	0,8750 x	150,00000 x	450,00000	7598	N	355728	93060-02	
05	1	0,8750 x	150,00000 x	450,00000	7598	N	355728	93060-03	
**	3				22794				
06	1	0,8750 x	178,00000 x	356,00000	7133	N	354638	93547-01	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	354638	93547-02	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	355137	93540-01	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	355137	93540-02	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	355137	93546-01	
06	1	0,8750 x	178,00000 x	356,00000	7133	N	355137	93546-02	
**	6				42798				
07	1	1,0000 x	150,00000 x	450,00000	8683	N	355728	93269-01	
07	1	1,0000 x	150,00000 x	450,00000	8683	N	355730	92491-01	
07	1	1,0000 x	150,00000 x	450,00000	8683	N	355730	92491-02	
07	1	1,0000 x	150,00000 x	450,00000	8683	N	355730	92491-03	

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

B. BALDAUF
Test House Manager

A H B Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 18.02.11 PP 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 2/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

B01-B99 Description of the product

B14 Item No.	B98 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				
07	1	1,0000 x	150,00000 x	450,00000	8683	N	355730	92508-01	
**	5				43415				
08	1	1,0000 x	178,00000 x	356,00000	8152	N	355134	93530-01	
08	1	1,0000 x	178,00000 x	356,00000	8152	N	355137	93528-01	
08	1	1,0000 x	178,00000 x	356,00000	8152	N	355137	93529-01	
**	3				24456				
10	1	1,1250 x	121,00000 x	480,00000	8405	N	355730	92371-01	
10	1	1,1250 x	121,00000 x	480,00000	8405	N	355730	92371-02	
10	1	1,1250 x	121,00000 x	480,00000	8405	N	355730	92483-02	
10	1	1,1250 x	121,00000 x	480,00000	8405	N	355732	92290-01	
**	4				33620				
***	27				194875				

B04 Product delivery condition

ITEM NO.: 01-10
N: HT: 1670 GR.F +36 -27 GR.F
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-10
STEEL DESIGNATION SA516 70 MTLTV SA516 60 MTLTV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

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

B. BALDAUF
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 18.02.11 PP 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 3/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements: ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

B07-B99 Further information about the product

ITEM NO.: 01-10
THICKNESS REDUCTION RATIO >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile 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	C10 KSI RP02	C11 RM	C12	C13	C14-C15 A % LO=SIN
01	351665	60830		K1	Q	RT	53,2	76,9			25
02	354638	93854		K1	Q	RT	50,6	76,7			26
02	355728	93391		K1	Q	RT	52,6	76,9			25
03	354638	60834		K1	Q	RT	51,5	76,4			25
05	355728	93060		K1	Q	RT	49,7	75,3			27
06	354638	93547		K1	Q	RT	50,9	75,3			26
06	355137	93540		K1	Q	RT	48,9	74,4			30
06	355137	93546		K1	Q	RT	49,9	74,8			29
07	355728	93269		K1	Q	RT	51,0	75,4			29
07	355730	92491		K1	Q	RT	49,9	74,7			29
07	355730	92508		K1	Q	RT	49,3	74,1			29
08	355134	93530		K1	Q	RT	48,1	73,1			33
08	355137	93528		K1	Q	RT	49,2	74,2			28
08	355137	93529		K1	Q	RT	49,9	73,8			28
10	355730	92371		K1	Q	RT	49,7	74,7			29
10	355730	92483		K1	Q	RT	50,0	74,2			33
10	355732	92290		K1	Q	RT	50,0	74,2			29

A04 Manufacturer's mark: D H

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

A H B
Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 18.02.11 PP I

DILLINGER HÜTTE

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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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 4/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

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. GR.F	C30 Method of test	C35	C31 Individual values			C32 Mean value
01	351665	60830		K1	O	RT	HBW 10/3000	HB	150	152	151	151
02	354638	93854		K1	O	RT	HBW 10/3000	HB	150	150	149	150
02	355728	93391		K1	O	RT	HBW 10/3000	HB	152	151	148	150
03	354638	60834		K1	O	RT	HBW 10/3000	HB	145	150	148	148
05	355728	93060		K1	O	RT	HBW 10/3000	HB	148	149	148	148
06	354638	93547		K1	O	RT	HBW 10/3000	HB	148	147	148	148
06	355137	93540		K1	O	RT	HBW 10/3000	HB	150	151	150	150
06	355137	93546		K1	O	RT	HBW 10/3000	HB	151	152	151	151
07	355728	93269		K1	O	RT	HBW 10/3000	HB	149	148	148	148
07	355730	92491		K1	O	RT	HBW 10/3000	HB	144	144	143	144
07	355730	92508		K1	O	RT	HBW 10/3000	HB	148	149	148	148
08	355134	93530		K1	O	RT	HBW 10/3000	HB	145	146	144	145
08	355137	93528		K1	O	RT	HBW 10/3000	HB	148	148	148	148
08	355137	93529		K1	O	RT	HBW 10/3000	HB	147	146	146	146
10	355730	92371		K1	O	RT	HBW 10/3000	HB	145	145	146	145
10	355730	92483		K1	O	RT	HBW 10/3000	HB	145	146	146	146
10	355732	92290		K1	O	RT	HBW 10/3000	HB	145	145	145	145

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=FT.LBF			C43 Mean value
01	351665	60830		K1	LV	-51		CHP-V			AV	185	74	147	135
02	354638	93854		K1	LV	-51		CHP-V			AV	97	135	117	116
02	355728	93391		K1	LV	-51		CHP-V			AV	140	180	181	167
03	354638	60834		K1	LV	-51		CHP-V			AV	142	136	130	136

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
Test House Manager

Inspector's stamp

Date 18.02.11 PP 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
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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 5/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

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=FT.LBF			C43 Mean value
05	355728	93060		K1	LV	-51		CHP-V			AV 114	105	124	114
06	354638	93547		K1	LV	-51		CHP-V			AV 104	127	116	116
06	355137	93540		K1	LV	-51		CHP-V			AV 213	118	139	157
06	355137	93546		K1	LV	-51		CHP-V			AV 122	214	127	154
07	355728	93269		K1	LV	-51		CHP-V			AV 142	155	125	141
07	355730	92491		K1	LV	-51		CHP-V			AV 156	120	84	120
07	355730	92508		K1	LV	-51		CHP-V			AV 114	146	123	128
08	355134	93530		K1	LV	-51		CHP-V			AV 115	106	194	138
08	355137	93528		K1	LV	-51		CHP-V			AV 94	201	226	174
08	355137	93529		K1	LV	-51		CHP-V			AV 118	111	125	118
10	355730	92371		K1	LV	-51		CHP-V			AV 103	115	122	113
10	355730	92483		K1	LV	-51		CHP-V			AV 100	119	106	108
10	355732	92290		K1	LV	-51		CHP-V			AV 127	109	116	117

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
351665	Y	0,180	0,375	1,17	0,012	0,0009	0,0067	0,045	0,010	0,041	0,036	0,000	0,000	0,002	0,002
354638	Y	0,171	0,372	1,19	0,009	0,0012	0,0070	0,030	0,012	0,030	0,037	0,000	0,000	0,001	0,002
355134	Y	0,171	0,383	1,16	0,007	0,0005	0,0066	0,021	0,014	0,025	0,020	0,000	0,000	0,001	0,003
355137	Y	0,179	0,387	1,18	0,008	0,0005	0,0066	0,039	0,009	0,050	0,023	0,000	0,000	0,001	0,002
355728	Y	0,175	0,372	1,18	0,009	0,0013	0,0070	0,036	0,021	0,059	0,045	0,000	0,000	0,002	0,003
355730	Y	0,178	0,372	1,17	0,008	0,0010	0,0069	0,034	0,010	0,033	0,042	0,000	0,000	0,002	0,003
355732	Y	0,181	0,357	1,16	0,007	0,0011	0,0076	0,039	0,010	0,040	0,039	0,000	0,000	0,003	0,002

A04 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
Test House Manager

Inspector's stamp

Date 18.02.11 PP

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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 6/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70 SA20-S5

B03 Any suppl. requirements: ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	B	CA	AL-T
351665	Y	0,0002	0,0016	0,033
354638	Y	0,0001	0,0026	0,034
355134	Y	0,0002	0,0011	0,037
355137	Y	0,0002	0,0010	0,035
355728	Y	0,0002	0,0028	0,034
355730	Y	0,0000	0,0017	0,034
355732	Y	0,0000	0,0019	0,033

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat										
351665	FO-02=	0,39	FO-51=	0,000	FO-55=	0,13	FO-78=	0,05	FO-91=	6,5
354638	FO-02=	0,38	FO-51=	0,000	FO-55=	0,11	FO-78=	0,05	FO-91=	7,0
355134	FO-02=	0,37	FO-51=	0,000	FO-55=	0,08	FO-78=	0,03	FO-91=	6,8
355137	FO-02=	0,39	FO-51=	0,000	FO-55=	0,12	FO-78=	0,03	FO-91=	6,6
355728	FO-02=	0,39	FO-51=	0,000	FO-55=	0,16	FO-78=	0,07	FO-91=	6,7
355730	FO-02=	0,39	FO-51=	0,000	FO-55=	0,12	FO-78=	0,05	FO-91=	6,6
355732	FO-02=	0,39	FO-51=	0,000	FO-55=	0,13	FO-78=	0,05	FO-91=	6,4

C95 Ladle treatment

ITEM NO.: 01-10
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C95 Further information about ladle treatment

ITEM NO.: 01-10
CALCIUM TREATED

A04 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

B. BALDAUF
Test House Manager

AHB Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 18.02.11 PP 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 7/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No.: ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design.: SA516-70 SA20-S5

B03 Any suppl. requirements: ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

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
351665	60825	K1	0,179	0,378	1,16	0,011	0,0009	0,0068	0,045	0,009	0,041	0,036	0,000	0,000	0,002	0,002
354638	54388	K1	0,169	0,366	1,16	0,009	0,0009	0,0071	0,025	0,010	0,029	0,033	0,000	0,000	0,001	0,001
354638	93547	K1	0,181	0,365	1,15	0,008	0,0008	0,0069	0,037	0,014	0,032	0,033	0,000	0,002	0,000	0,002
354638	93854	K1	0,188	0,369	1,15	0,006	0,0005	0,0070	0,053	0,016	0,034	0,033	0,000	0,004	0,001	0,002
355134	93530	K1	0,170	0,384	1,16	0,007	0,0009	0,0068	0,021	0,014	0,027	0,020	0,000	0,000	0,001	0,003
355137	93529	K1	0,172	0,386	1,17	0,008	0,0010	0,0076	0,040	0,008	0,054	0,023	0,001	0,000	0,000	0,002
355137	93546	K1	0,182	0,386	1,16	0,008	0,0006	0,0079	0,040	0,009	0,053	0,023	0,001	0,000	0,000	0,002
355728	93060	K1	0,174	0,368	1,17	0,008	0,0014	0,0067	0,035	0,021	0,059	0,046	0,000	0,000	0,001	0,003
355728	93269	K1	0,179	0,369	1,18	0,009	0,0015	0,0075	0,035	0,020	0,060	0,046	0,000	0,000	0,001	0,003
355728	93391	K1	0,182	0,367	1,16	0,009	0,0017	0,0081	0,035	0,020	0,059	0,046	0,000	0,000	0,001	0,003
355728	93534	K1	0,180	0,370	1,17	0,009	0,0014	0,0078	0,035	0,021	0,060	0,046	0,000	0,000	0,001	0,003
355730	92483	K1	0,173	0,371	1,16	0,008	0,0009	0,0073	0,033	0,009	0,033	0,041	0,000	0,000	0,001	0,003
355730	92486	K1	0,173	0,369	1,16	0,008	0,0008	0,0075	0,034	0,011	0,037	0,042	0,000	0,000	0,001	0,003
355730	92508	K1	0,169	0,370	1,16	0,008	0,0011	0,0066	0,034	0,017	0,052	0,044	0,000	0,000	0,001	0,003
355732	92290	K1	0,170	0,359	1,16	0,007	0,0008	0,0076	0,035	0,009	0,037	0,041	0,000	0,000	0,001	0,002

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
351665	60825	K1	0,0002	0,0017	0,033
354638	54388	K1	0,0003	0,0023	0,034
354638	93547	K1	0,0001	0,0018	0,031
354638	93854	K1	0,0000	0,0015	0,030
355134	93530	K1	0,0003	0,0009	0,036
355137	93529	K1	0,0001	0,0010	0,035
355137	93546	K1	0,0000	0,0010	0,034
355728	93060	K1	0,0002	0,0025	0,035

A04 Manufacturer's mark: D H

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: A H B

Date 18.02.11

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 8/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
355728	93269	K1	0,0001	0,0023	0,033
355728	93391	K1	0,0001	0,0022	0,031
355728	93534	K1	0,0003	0,0024	0,033
355730	92483	K1	0,0002	0,0016	0,034
355730	92486	K1	0,0000	0,0015	0,033
355730	92508	K1	0,0002	0,0021	0,034
355732	92290	K1	0,0000	0,0016	0,033

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01						
351665	60825	K1	FO-02=	0,39	FO-51=	0,000	FO-55=	0,13
354638	54388	K1	FO-02=	0,37	FO-51=	0,000	FO-55=	0,10
354638	93547	K1	FO-02=	0,39	FO-51=	0,002	FO-55=	0,12
354638	93854	K1	FO-02=	0,40	FO-51=	0,004	FO-55=	0,14
355134	93530	K1	FO-02=	0,37	FO-51=	0,000	FO-55=	0,08
355137	93529	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,13
355137	93546	K1	FO-02=	0,39	FO-51=	0,001	FO-55=	0,13
355728	93060	K1	FO-02=	0,39	FO-51=	0,000	FO-55=	0,16
355728	93269	K1	FO-02=	0,40	FO-51=	0,000	FO-55=	0,16
355728	93391	K1	FO-02=	0,39	FO-51=	0,000	FO-55=	0,16
355728	93534	K1	FO-02=	0,39	FO-51=	0,000	FO-55=	0,16
355730	92483	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,12
355730	92486	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,12
355730	92508	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,15
355732	92290	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,12

A04 Manufacturer's mark: D H

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: A H B

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 18.02.11 PP 1

DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004
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: 380370-18.02.11

A08/ Manufacturer's order/ A03 Certificate No.: 362037-002 Sheet: 9

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10557-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements: ASME-II-A:10
DIL-HUE-2:R31-2010-11-22

C94 Carbon equivalent formula / Alloying restrictions

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

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

ITEM NO.: 01-10
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS

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

MTR APPROVED EDMONTON EXCHANGER

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
Test House Manager

Inspector's stamp

A01 AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Date 18.02.11 PP 1

RJV GAS FIELD SERVICES

PRESSURE TEST RECORD

Date:	Oct 27/2011
Vessel Serial Number:	12340
Vessel Design Pressure:	1480 Psi.
Hydro Test Pressure:	2220 Psi.
Temperature:	+16
Test Gauge No.:	#45/33
Hydro By:	Wes
Q.C. Signature:	

Print Clearly

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

#12259

W

RT - 2

Certified By

RJV GAS FIELD SERVICES

Vegreville, Alberta
Phone (780)632-7774

A#612508

UNIT NAME

Vertical 3 Phase Separator

M.A.W.P. Internal		AT	DESIGN TEMP.		M.A.W.P. External
10205	Kpa.	@	38	°C	Kpa.
1480	Psi.	@	100	°F	p.s.i.

MINIMUM DESIGN METAL TEMPERATURE					YEAR BUILT
-29	°C	@	10205	Kpa.	Oct. 2011
-20	°F	@	1480	p.s.i.	

C.R. NUMBER	SERIAL NO.
P7217.231	12340

CORR. ALLOW.	HEAT TREATMENT	HYDRO TEST
1.6 mm	Nil	15307 Kpa. / 2220 p.s.i.

SHELL THICK.	HEAD THICK.	WEIGHT
21.44 mm	Top - 20.63 mm Bottom - 20.63 mm	685 Kg.

SHELL MAT'L	HEAD MAT'L	SIZE
SA-106-B	Top- SA-516-70 Bottom- SA-516-70	406 X 2285

ACUREN

ISO 9001:2000

RADIOGRAPHIC TESTING REPORT

R-204015

PAGE 1 OF 1

CLIENT: RJV
ATTENTION:
ADDRESS: Dave
PROJECT: Vessel - Spot
WORK LOCATION: Vegreville

DATE: Oct 26/11
ACUREN JOB #: 231-56647-84
PO/WO #: Serial # 12340
PROCEDURE #: RT-0016
ACCEPTANCE: ASME SEC VIII
STANDARD: Div I UW52 2010

MATERIAL TYPE: P1
FILM BRAND: Agfa
RADIATION SOURCE: ☑ IR 192 ☐ Co 60 ☐ X-RAY
46 (CI) KV
FOCAL SPOT: 0.14" MM (IN)

Legend 1. Accept 2. Moderate 3. Reject * Welder Symbol

	IDENTIFICATION	PIPE DIA.	PIPE SCH	FILM TYPE	REIN.	TECH #	SOD (D)	OFD (t)	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	*	DEFECT LOCATION & REMARKS	ACC	REJ
1	SP1 0-6	16"	80	D5	.125"	2	8"	.84"	1									M,X		✓	
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

SIGNATURES

REFER TO OPPOSITE SIDE FOR SCOPE OF SERVICES AND STANDARD OF CARE

CLIENT REPRESENTATIVE: Wes (PRINT) _____ (SIGNATURE)

TECHNICIAN (SIGN): B. Osmond

PRINT NAME: Brad Osmond (1ST TECHNICIAN) M. Lederer (2ND TECHNICIAN/ASSISTANT)

CGSB LEVEL II SNT LEVEL II CGSB REGISTRATION # 3161

CGSB LEVEL _____ SNT LEVEL _____ CGSB REGISTRATION # _____

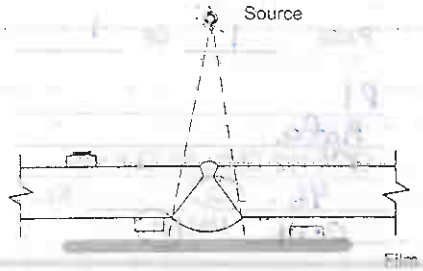
FILM USED: 1 PCS FILM SIZE 4½x8½

PCS _____ PCS _____ PCS _____ PCS _____ PCS _____ PCS _____

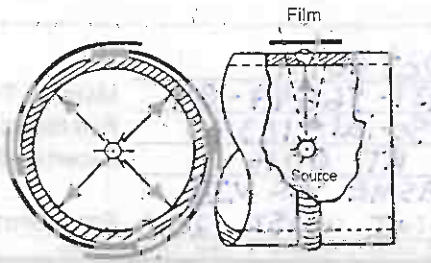
DTR # A357936

*Please note: Film that is not accepted by the client when the report is issued will be disposed of by Acuren unless otherwise notified and acknowledged in writing.

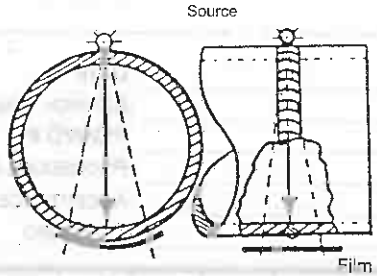
White – Client Copy Canary – Office Copy Pink - Technician Copy Golden Rod - Office Copy



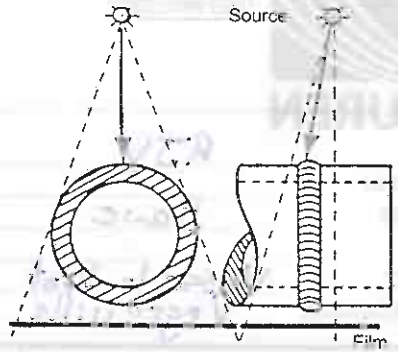
Technique "1"
SWE-SWV



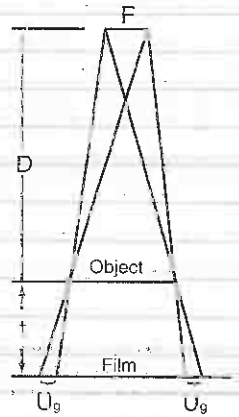
Technique "2"
SWE-SWV



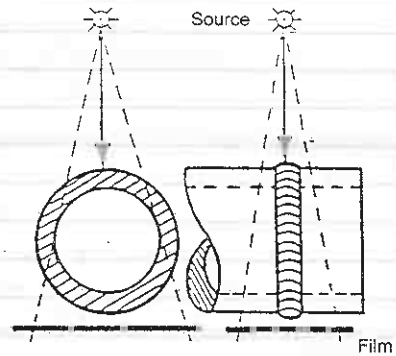
Technique "3"
DWE-SWV



Technique "4"
DWE-DWV



DEFECT LEGEND		OTHER LEGENDS	
CRK	Crack	SWE	Single Wall Exposure
LF	Lack of Fusion	DWE	Double Wall Exposure
IP	Incomplete Penetration	SWV	Single Wall Viewing
P	Porosity	DWV	Double Wall Viewing
S	Slag	EXP	Exposures
UC	Undercut	REIN	Reinforcement
CR	Concave Root	DIA	Diameter
EP	Excessive Penetration	SOD	Source Object Distance
BT	Burn Through	OFD	Object to Film Distance
HB	Hollow Bead		
PH	Pinhole		



Technique "5"
DWE-DWV

U_g = Geometric Unsharpness
D = source to object distance
t = object to film distance
F = Focal Spot Size

$$U_g = F\,t/D$$

**Note:If t is omitted from this report, the Pipe Schedule shall apply as t.*

DISCLAIMERS

SCOPE OF SERVICE

The agreement of Acuren to perform the Services extends only to those Services provided for in writing. Under no circumstances shall such Services extend beyond the performance of the requested Services provided for in writing and the preparation of reports or similar documents reflecting the data obtained or the opinion formulated on the basis of such Services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinion or observations of the examiner/engineer and are not intended, nor can they be construed, as representations or warranties as to the actual circumstances. Acuren does not assume any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, repair and use decisions as a result of the data or other information provided by Acuren. In no event shall Acuren's liability in respect of the Services referred to herein exceed the amount paid for such Services.

STANDARD OF CARE

In performing the Services provided, Acuren uses the degree of care and skill ordinarily exercised under similar circumstances by others performing such Services in the same or similar locality. If at any time during the performance of the Services or within one (1) year thereafter, Purchaser discovers that the Services do not conform to the warranty, Acuren shall, upon receipt of written notice from Purchaser promptly provide technicians/engineers to reperform the Services to the extent necessary to conform to the warranty and Acuren shall have no other liability whatsoever. No other warranty, expressed or implied, is made or intended by Acuren.

LIMITATIONS OF LIABILITY

Nothing in this Agreement shall be construed to mean that Acuren assumes any liability on account of injury to persons or property, including death, except those directly caused by negligent acts of Acuren or its employees and that Purchaser's own responsibility for injury to persons or properties while on or about Purchaser's property or equipment is in no way affected by this Agreement. Acuren shall not be held responsible or liable for any loss, damage, detention or delay caused by accidents, strikes, labour shortages, lock-outs, fire, flood, severe weather conditions, acts of civil or military authorities, or by insurrection or riot, or by any other cause that is unavoidable or beyond Acuren's control or in any event for consequential damages including, without limitation, down time, loss of use or loss of profits.

ALBERTA MUNICIPAL AFFAIRS
ABSA, the pressure equipment safety authority
9410 – 20th Avenue
Edmonton, AB T6N 0A4
Partial/ *Partiel* ☐

A612508

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 envoye 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*	Overall Length/*Longeur totale*	Serial No./ *N° de série*	Year built/Année de fabrication
Vertical 3 Phase Separator	**2285mm sm/sm**	**12340**	**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	Division	Addenda/*Supplément*	Code case No. *N ° de cas*
	Section VIII	1	2010	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 adqéuatement identifiés et signés par les inspecteurs authorisés 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/ *Tetes*

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'épreuvre (hydro-pneumatique ou combinaison)*
Vessel	10,205 Kpa.	38°C	-29°C	15,307 Kpa.

Tube Section/ *Faisceau tubulaire*

Tubesheet/ *Plaque tubulaire*	Material/ *Matériau*	Diameter/ *Diametre*	Nominal Thickness *Epaisseur nominate*	Corr. Allow. *Surépais. corrosion*	Attachment *Mode d'attachement*
Tube material/ *Materiau des tubes*	Diameter/ *Diamètre*	Nominal Thickness (gauge) *Épaisseur nominale (calibre)*	Number/ *Nbre*	Type (Straight or U) *Type (Droit ou U)*	Heating Surface *Surface de chauffe*

Jacket/ *Chemise*

Type of jacket/ *Genre de chemise*	Jacket closure *Fermeture de chemise*	Proof Test *Pression d'épreuve*	Heating Surface *Surface de chauffe*	Sketch/ *Schéma*

Safety Valve Outlets/ *Soupapes de sûreté*

Number/ *Nombre*	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
Hydrostaticlly tested in the vertical position
Nozzel to shell weld full penitration

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 OCT 27 2011

Certificate of Shop Inspection/ Certificat d'inspecton en usine

I, the undersigned, a duly authorized boiler and pressure vessel inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by (employé par) ABSA
of (de) Alberta
have inspected the above vessel and state that to the best of my knowledge and belief the manufacturer has constructed the vessel in accordance with Canadian Registration No. ~~P7217.231~~ and the requirements of CSA Standard B51. By signing this certificate, neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the vessel described in this manufacturer's data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
ai inspecté l'appareil précité et, autant que je sache, le constructeur a construit l'appareil en accord avec le numéro d'enregistrement canadien P7217.231 et les exigences de la norme CSA B51. En sigant ce certificate, 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 OCT 27 2011

Certificate of Compliance - Field Work/ *Certificat de conformité - Installation au chantier*

We certify that the field installation of all parts of the vessel conforms with the requirements of Provincial Regulations.

Nous certifions que l'installation au chantier de toutes les composantes de l'appareil est conforme aux règlements provinciaux.

Installer's Name
Nom de l'installateur _____

Signature _____

Date _____

Certificate of Field Inspection/ *Certificat d'inspection - Installation au chantier*

I, the undersigned, a duly authorized boiler and pressure vessel inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by
employé par ABSA
have inspected the items not covered by the Certificate of Shop inspection and the installation of the items and state that to the best of my knowledge and belief the construction and assembly of the items are in accordance with the provincial regulations. By signing this certificate, neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the vessel described in this manufacturer's data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
ai inspecté les composantes non couvertes par le certificate 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 certificate, 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