

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

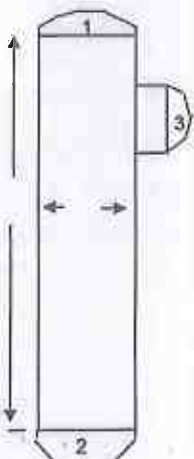
Hold Points established - Sign & Date July 24/12.
(Authorized Inspector)

Vessel Range 12616 to 12621

Vessel Serial # 12616 DWG # V01-381-R1 (A) # 623763

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	June 11, 2012	EP DEC 18 2012
CALCULATIONS ON FILE		X	June 11, 2012	EP DEC 18 2012
MATERIAL CHECKED AGAINST DRAWING, MATERIAL LIST			June 11, 2012	
MTR'S CHECKED		X	June 11, 2012	EP DEC 18 2012
VESSEL LAYOUT			June 11, 2012	
NOZZLES	ORIENTATION		June 12, 2012	
& FITTINGS	RATINGS	X	June 12, 2012	EP DEC 18 2012
FIT	NOZZLES & FITTINGS		July 16, 2012	
UP	SHELL & HEAD		July 24, 2012	
INTERNALS (tray, baffles, etc)			July 19, 2012	
INTERNAL INSPECTION		H	July 24, 2012	EP July 24/12.
MATERIAL INSPECTION REPORT		X	July 23, 2012	EP DEC 18 2012
WELD SIZES		X	Aug. 2, 2012	EP DEC 18 2012
WELDERS I.D.			Aug. 2, 2012	
EXTERNAL AFTER COMPLETION OF ALL WELDING		X	Aug. 2, 2012	EP DEC 18 2012
INTERNAL ON TYPE 1 JOINTS			Aug. 2, 2012	
RADIOGRAPHS		X	Aug. 7, 2012	EP DEC 18 2012
OTHER N.D.E.				
IMPACT TESTS				
POST WELD HEAT TREATMENT	YES: <input checked="" type="checkbox"/> NO: <input type="checkbox"/>			
EXTERNAL BEFORE PWHT				
PWHT CHART CHECKED				
NAMEPLATE		X	Dec 18, 2012	EP DEC 18 2012
HYDROSTATIC TEST		H	Dec 18, 2012	EP DEC 18 2012
DATA REPORT		X	Dec 18, 2012	EP DEC 18 2012
NONCONFORMANCES				

		SPECIFICATIONS		HEAT NUMBER	VERIFIED THICKNESS
	SHELL	C1	SA-106-B	6601454	21.44mm
	HEADS	1	SA-516-70	G4225-275240720	20.63mm.
		2	SA-516-70	344657-76977	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				

Travel Sheet

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

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

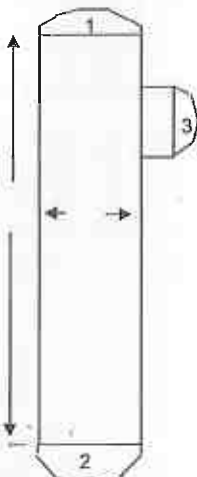
Hold Points established - Sign & Date

[Signature] July 24/12.
(Authorized Inspector)

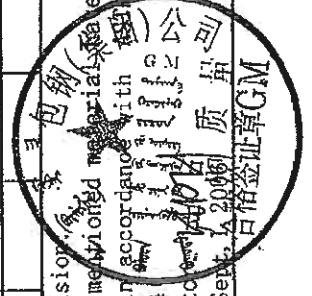
Vessel Range 12616 to 12621

Vessel Serial #		DWG # V01-381-R1		(A) #	
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	June 11, 2012	<i>[Signature]</i>	
CALCULATIONS ON FILE		X	June 11, 2012	<i>[Signature]</i>	
MATERIAL CHECKED AGAINST DRAWING, MATERIAL LIST			June 11, 2012	<i>[Signature]</i>	
MTR'S CHECKED		X	June 11, 2012	<i>[Signature]</i>	
VESSEL LAYOUT			June 11, 2012	<i>[Signature]</i>	
NOZZLES	ORIENTATION		June 12, 2012	<i>[Signature]</i>	
& FITTINGS	RATINGS	X	June 12, 2012	<i>[Signature]</i>	
FIT	NOZZLES & FITTINGS		July 16, 2012	<i>[Signature]</i>	
UP	SHELL & HEAD				
INTERNALS (tray, baffles, etc)			July 19, 2012	<i>[Signature]</i>	
INTERNAL INSPECTION		H	July 24, 2012	<i>[Signature]</i>	<i>[Signature]</i> July 24/12.
MATERIAL INSPECTION REPORT		X	July 23, 2012	<i>[Signature]</i>	
WELD SIZES		X			
WELDERS I.D.					
EXTERNAL AFTER COMPLETION OF ALL WELDING		X			
INTERNAL ON TYPE 1 JOINTS					
RADIOGRAPHS		X			
OTHER N.D.E.					
IMPACT TESTS					
POST WELD HEAT TREATMENT	YES: NO: <i>[Signature]</i>				
EXTERNAL BEFORE PWHT					
PWHT CHART CHECKED					
NAMEPLATE		X			
HYDROSTATIC TEST		H			
DATA REPORT		X			
NONCONFORMANCES					

		SPECIFICATIONS		HEAT NUMBER	VERIFIED THICKNESS
SHELL	C1	SA-106-B			21.44mm
	1	SA-516-70			20.63mm.
	2	SA-516-70			20.63mm.
HEADS	3				
	1				
	2				
REPADS	3				
	4				
		SPECIFICATIONS		SIZE	SCHEDULE
NOZZLES		SA-106-B		2"	Sch. 160
FITTINGS		SA-105		1/2", 3/4", 1", 2"	CL6000 cplg.
TUBES					



CONTRACT No.: 2006BGEL01		包头钢铁 (集团) 有限责任公司 BAOTOU IRON AND STEEL (GROUP) CO., LTD. Hexi Industrial Zone, Kun District, Baotou, Inner Mongolia, China										CERTIFICATE NO.: BSC001/2006						
SHIPPER: Baotou Steel International Economic and Trading Co., Ltd.		TOTAL QUANTITY: 482.722MT																
PURCHASER: Eldon Development Ltd. (LAI WU GROUP) 42/F., Office Tower, Convention Plaza, 1 Harbour Road, Wanchai, Hong Kong		PACKING: Binding together three pieces per bundle																
DESCRIPTION OF GOODS: CARBON SEAMLESS PIPE UNDER CONTRACT NO. 2006BGEL01 (1) 16" O.D. X 0.844" W.T. X 7.5FT (2) 16" O.D. X 0.844" W.T. X LESS THAN 7.5FT		SHIPPING MARKS: LW WSC COMMODITY: CARBON SEAMLESS PIPE SPEC.: ASTM A106B/ASME SA 106B SIZE: OD 16" X 0.844" WALL THICKNESS X 7.5FT OD 16" X 0.844" WALL THICKNESS X LESS THAN 7.5FT																
		HEAT NO.: BUNDLE NO.: BUNDLE WEIGHT: MADE IN CHINA																
Specification		Chemical Compositions (%)										Mechanical Properties						
Heat No.	O.D. (in.)	W.T. (in.)	Meters	Tons	C	MN	S	P	SI	OR	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	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	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	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	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	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	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	0.005	480	260	30.5
				2371.75	482.722													
Technical Testing																		
Dimension Check	Surface Quality	Hydrostatic Test	Flattening Test	Bending Test	Rolling process	Eddy Current Test												
OK	OK	OK	OK	OK	Hot rolling	OK												
Conclusion: above mentioned materials have been made in accordance with B-2004 Inspector: [Signature] Date: Sept. 14, 2006																		



NOV 22 2006

[Handwritten signature]



edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

5545-89 Street Edmonton, Alberta Canada T6E 5W9 www.edmontonexchanger.com tel 780.468.6722 • QC fax 780.468.4668 • sales fax 780.468.5155

Customer RJV GASFIELD LTD.

PO 2785

Work Order C91815 Date 2011/11/22 ColCo 28866 Page 1 of 1

Item#	Description	Qty	Heat#	Required Min Thk	Recorded Min Thk	Form. Proc.
H91815-1	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	2	G4225-275240720	0.8125"	0.8220"	1
		10	G4225-275240720	0.8125"	0.8220"	1
		2	333516-30243	0.8125"	0.8260"	1
		1	332122-59647	0.8125"	0.8130"	1
		8	344657-76977	0.8125"	0.8180"	1
		1	350402-14890	0.8125"	0.8290"	1
		2	355137-93546	0.8125"	0.8320"	1
		1	350404-11955	0.8125"	0.8390"	1
		1	290117-15566	0.8125"	0.8230"	1
		8	G4225-275240728	0.8125"	0.8190"	1

Forming Procedure:

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

Brinell Equipment: Newage Calibrated Pin
Brinell Hardness Tester

Supplementary Requirements

Normalized Material Identification Marking:

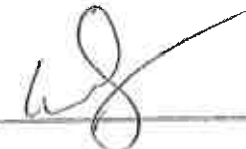
'MT' indicates normalized by the mill per ASME Code Section II, Part A, SA 20, Paragraph 13.1.1.

'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

Checked By 
Conforms to
ASME Section II

2010
DEC 09 2011

Edition

Date



edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

MTR List

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 2785

Work Order C91815 Date 2011/11/22 CotC# 28866 Page 1 of 1


MTR ID	Pages	Heat#	Thickness	Material Grades
13040	8	290117-15566	.875"	SA 516-70 N
15005	4	332122-59647	.875"	SA 516-70 N
16194	6	333516-30243	.875"	SA 516-70 N
15459	6	344657-76977	.875"	SA 516-70 N
15711	17	350404-11955	.875"	SA 516-70 N
16713	8	350402-14890	.875"	SA 516-70 N
16037	9	355137-93546	.875"	SA 516-70 N
16081	9	G4225-275240720	.875"	SA 516-70 N
		G4225-275240728	.875"	SA 516-70 N

Heat#	Material Grades	MTR ID
290117-15566	SA 516-70 N	13040
332122-59647	SA 516-70 N	15005
333516-30243	SA 516-70 N	15194
344657-76977	SA 516-70 N	15459
350402-14890	SA 516-70 N	15711
350404-11955	SA 516-70 N	16037
355137-93546	SA 516-70 N	16081
G4225-275240720	SA 516-70 N	16081
G4225-275240728	SA 516-70 N	16081





DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 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	A03 Manufacturer's order/ Certificate No. 315779-002	Sheet 1/...
A05 Established inspecting body DH		B01 Product HOT ROLLED PLATES		
B02 Steel design. SA516-70		 13040		
B03 Any suppl. requirements				
DIL-HUE-2:R21-2006-04-27				
A06 Purchaser ARCELOR CANADA, BURLI		A07.1 No. 61056		
Final receiver EDMONTON STEEL, EDMON		A07.2 No. E10408-J1010-LG		

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290115	15577-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290115	15578-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290115	15580-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290115	15585-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290115	15586-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290115	15588-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290115	15589-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15532-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15555-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15558-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15559-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15561-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15562-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15563-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15565-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15566-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15568-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15569-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15571-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15572-01	ITEM 1
01	1	0,8750 x	120,50000 x	480,00000 x	6510 N		290117	15574-01	ITEM 1
**	21				136710				
02	1	1,1250 x	97,00000 x	480,00000 x	6738 N		290119	15480-01	ITEM 2

A04	2012/02/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 22.01.07	Sheet KW 1
		 B. MUELLER Test House Manager		
QM-System: Certification as per ISO 9001				



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A09 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07	315779-002	2/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A08 Purchaser Final receiver	B01 Product HOT ROLLED PLATES		
B02 Steel design. SA516-70	ARCELOR CANADA, BURLI	A07.1 No. 61056		
B03 Any suppl. requirements	EDMONTON STEEL, EDMON	A07.2 No. E10408-J1010-LG		

B01-B99 Description of the product

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

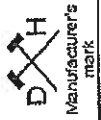
B06 Marking of the product

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

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B05 Reference (heat) treatment	C01 C02/ C03 C04 Temp. GR.F	C10 C11 KSI RP02	C12 C13 RM	A % L0=8IN	A % L0=2IN	C14-C15
01	290115	15577	K1 Q RT	48,9	72,9	32,4		
01	290115	15578	K1 Q RT	49,9	72,8	31,9		
01	290115	15580	K1 Q RT	49,0	72,6	29,9		

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



QM-System: Certification as per ISO 9001

B. Mueller
B. MUELLER
Test House Manager

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

Inspector's stamp

Date 22.01.07

KW 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+AL:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No./ Date of dispatch 242156-20.01.07	A09 Manufacturer's order/ A03 Certificate No. 315779-002	Sheet 3/...
A05 Established inspecting body DH		B01 Product HOT ROLLED PLATES		
B02/ Steel design. SA516-70		A07.1 No. 61056		
B03 Any suppl. ASME-2A:04+AD5 requirements DIL-HUE-2:R21-2006-04-27		A072 No. E10408-J1010-LG		

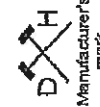
C10-C29 Tensile test

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

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

QM-System: Certification as per ISO 9001

A04	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 22.01.07	KW
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Manufacturer's mark



DILLINGER HÜTTE

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

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

A10 Advice of dispatch No./
Date of dispatch
242156-20.01.07

A08/ Manufacturer's order/
A03 Certificate No.
315779-002

Sheet
4/

A05 Established inspecting body
DH
SA516-70
ASME-2A:04+A05
DIL-HUE-21R21-2006-04-27

B01 Product
HOT ROLLED PLATES

B02/ Steel design.
S03 Any suppl.
requirements
ARCELOR CANADA, BURLI
EDMONTON STEEL, EDMON
A07.1 No. 61056
A07.2 No. E10408-J1010-LG

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Re-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
01	290115	15578		K1	O	RT	HBW 10/3000	HB 143	143
01	290115	15580		K1	O	RT	HBW 10/3000	HB 141	139
01	290115	15585		K1	O	RT	HBW 10/3000	HB 143	140
01	290115	15586		K1	O	RT	HBW 10/3000	HB 142	141
01	290115	15588		K1	O	RT	HBW 10/3000	HB 146	143
01	290115	15589		K1	O	RT	HBW 10/3000	HB 144	143
01	290117	15532		K1	O	RT	HBW 10/3000	HB 143	142
01	290117	15555		K1	O	RT	HBW 10/3000	HB 145	143
01	290117	15558		K1	O	RT	HBW 10/3000	HB 142	142
01	290117	15559		K1	O	RT	HBW 10/3000	HB 143	141
01	290117	15561		K1	O	RT	HBW 10/3000	HB 145	144
01	290117	15562		K1	O	RT	HBW 10/3000	HB 142	142
01	290117	15563		K1	O	RT	HBW 10/3000	HB 143	144
01	290117	15565		K1	O	RT	HBW 10/3000	HB 145	144
01	290117	15566		K1	O	RT	HBW 10/3000	HB 144	143
01	290117	15568		K1	O	RT	HBW 10/3000	HB 142	141
01	290117	15569		K1	O	RT	HBW 10/3000	HB 149	147
01	290117	15571		K1	O	RT	HBW 10/3000	HB 149	147
01	290117	15572		K1	O	RT	HBW 10/3000	HB 140	140
01	290117	15574		K1	O	RT	HBW 10/3000	HB 144	144
02	290119	15480		K1	O	RT	HBW 10/3000	HB 147	146
02	290119	15481		K1	O	RT	HBW 10/3000	HB 143	143
02	290119	15482		K1	O	RT	HBW 10/3000	HB 142	143

Z017020Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



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

B. MUELLER
Test House Manager

Inspector's stamp Date 22.01.07

KW

1

A01





DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07	315779-002	5/...
MATERIAL TEST REPORT (MTR)		801 Product		
A05 Established inspecting body		HOT ROLLED PLATES		
A06 Purchaser				
Final receiver				
A07.1 No. 61056				
ARCELOR CANADA, BURELI				
EDMONTON STEEL, EDMON				
A07.2 No. E10408-J1010-LG				
B02/ Steel design. S4516-70				
B03 Any suppl. ASME-2A:04+A05				
requirements DIL-EUE-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. GRF	C33 Temp. GRF	C33 Testing method	C35 Individual values	C32 Average value
02	290119	15483		K1 O		RT HBW 10/3000	RT HBW 10/3000	HB 146	145	145
02	290119	15484		K1 O		RT HBW 10/3000	RT HBW 10/3000	HB 145	142	142

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. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C45 Energy	C42 Individual values AVERT, LBF	C43 Average value
01	290115	15577		K1 LV		-51		CHP-V		AV 142	156	129
01	290115	15578		K1 LV		-51		CHP-V		AV 204	134	145
01	290115	15580		K1 LV		-51		CHP-V		AV 138	123	155
01	290115	15585		K1 LV		-51		CHP-V		AV 231	119	156
01	290115	15586		K1 LV		-51		CHP-V		AV 196	191	167
01	290115	15588		K1 LV		-51		CHP-V		AV 142	195	159
01	290115	15589		K1 LV		-51		CHP-V		AV 157	170	163
01	290117	15532		K1 LV		-51		CHP-V		AV 161	150	169
01	290117	15555		K1 LV		-51		CHP-V		AV 104	115	116
01	290117	15558		K1 LV		-51		CHP-V		AV 122	152	162
01	290117	15559		K1 LV		-51		CHP-V		AV 121	111	144
01	290117	15561		K1 LV		-51		CHP-V		AV 124	129	128
01	290117	15562		K1 LV		-51		CHP-V		AV 104	89	102
01	290117	15563		K1 LV		-51		CHP-V		AV 137	122	127
01	290117	15565		K1 LV		-51		CHP-V		AV 75	189	141
01	290117	15566		K1 LV		-51		CHP-V		AV 134	199	139
01	290117	15568		K1 LV		-51		CHP-V		AV 128	114	122
01	290117	15569		K1 LV		-51		CHP-V		AV 176	189	164
01	290117	15571		K1 LV		-51		CHP-V		AV 147	132	124

Z01/E02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

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

3.11.11

B. MUELLER
Test House Manager



Inspector's stamp Date 22.01.07 KW 1





DILLINGER HÜTTE

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

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

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. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C45 Energy	C42 Individual values AV=FT.LBF	C43 Average value
01	290117	15572		K1	LV	-51		CHP-V				
01	290117	15574		K1	LV	-51		CHP-V				
02	290119	15480		K1	LV	-51		CHP-V				
02	290119	15481		K1	LV	-51		CHP-V				
02	290119	15482		K1	LV	-51		CHP-V				
02	290119	15483		K1	LV	-51		CHP-V				
02	290119	15484		K1	LV	-51		CHP-V				

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
290115	Y	0.173	0.359	1.16	0.010	0.0012	0.0057	0.031	0.016	0.005	0.023	0.026	0.000	0.000	0.001
290117	Y	0.175	0.360	1.14	0.008	0.0009	0.0048	0.039	0.047	0.007	0.071	0.033	0.000	0.000	0.001
290119	Y	0.173	0.354	1.17	0.010	0.0008	0.0068	0.029	0.022	0.019	0.036	0.031	0.000	0.000	0.001

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=	FO-02=
290115															
290117															
290119															

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

QM-System: Certification as per ISO 9001

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

Inspector's stamp

Date 22.01.07

KW 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No/ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Shoot	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		24.21.56-20.01.07		315779-002		7/...	
MATERIAL TEST REPORT (MTR)				S01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		Final receiver		ARCELOR CANADA, BURLI		EDMONTON STEEL, EDMON	
S02/ Steel design.		SA516-70		61056		E10408-J1010-LG	
S03 Any suppl. requirements		ASME-2A: 04+A05					
		DIL-HUE-2:R21-2006-04-27					
				HOT ROLLED PLATES			

C95 Ladie 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	FO-02=	FO-02=	FO-55=	FO-55=	FO-55=
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	 Manufacturer's mark		Z01Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	A01
B. MUELLER Test House Manager			AHB Inspector's stamp	Date 22.01.07	KW 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A03/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		242156-20.01.07	315779-002	8
MATERIAL TEST REPORT (MTR)			B01 Product	
A05 Established inspecting body DH	A06 Purchaser Final receiver	A07.1 No.	A07.2 No.	
		ARCELOR CANADA, BURLI	EDMONTON STEEL, EDMON	
B02/ Steel design.	SA516-70			
B03 Any suppl. requirements	ASME-2A:04+A05 DIL-HUE-2:R21-2006-04-27			

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

ITEM NO.: 01-02
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS
SURFACE AS PER ASME-SA20
THICKNESS AS PER ASME-SA20
LENGTH AND WIDTH AS PER ASME-SA20
FLATNESS AS PER 1/2-ASME-SA20



A04	201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		A01
	QM-System: Certification as per ISO 9001	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	
Manufacturer's mark	 B. MUELLER Test House Manager	Inspector's stamp AHB	Date 22.01.07 KW 1



DILLINGER HÜTTE

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

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

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10520-J1010-LG
DH Final receiver EDMONTON STEEL, EDMONT A07.2 No.

B02/ Steel design SA516-70
B03 Any suppl. ASME-2A:07+A08
requirements DIL-HUE-2:R24-2007-11-20

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,8750 x	150,00000 x	480,00000	8104	N	332122	59629-01	59629-01
01	1	0,8750 x	150,00000 x	480,00000	8104	N	332122	59629-02	59629-02
01	1	0,8750 x	150,00000 x	480,00000	8104	N	332122	59647-01	59647-01
01	1	0,8750 x	150,00000 x	480,00000	8104	N	332122	59647-02	59647-02
**	4				32415				
03	1	1,3750 x	150,00000 x	480,00000	12735	N	332122	59623-01	59623-01
03	1	1,3750 x	150,00000 x	480,00000	12735	N	332122	59623-02	59623-02
**	2				25470				
***	6				57886				

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

A04



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

QM-System: Certification as per ISO 9001



B. MEYER
Test House Manager

AG der Dillinger Hüttenwerke
Postfach 1580, D-66749 Dillingen/Saar
Inspection department

Inspector's stamp Date 05.02.09 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)
A03 Established inspecting body A03 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10520-J1010-LG
DIE Final receiver EDMONTON STEEL, EDMONT A07.2 No.

B02/ Steel design. SA516-70
B03 Any suppl. ASME-2A: 07+A08
requirements DIL-HUE-2: R24-2007-11-20

SA20-S5

C10-C29 Tensile test									
B14 Item No.	B07.1 Heat No.	B05 Rol./plate/ Test No.	B05 Reference (heat) treatment	C01 C01	C02/ C03 C01	C03 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13 A % L0=2IN
01	332122	59629		K1 Q	RT	50,3	74,5		
01	332122	59647		K1 Q	RT	49,6	75,0		
03	332122	59623		K1 QV	RT	50,6	75,8		

C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B05 Rol./plate/ Test No.	B05 Reference (heat) treatment	C01 C01	C02/ C03 C01	C03 Temp. GR.F	C33 Testing method	C35 C31 Individual values	C32 Mean value
01	332122	59629		K1	O	RT HBW 10/3000	HB 142	141	141
01	332122	59647		K1	O	RT HBW 10/3000	HB 149	148	148
03	332122	59623		K1	O	RT HBW 10/3000	HB 140	141	141

C40-C49 Impact test									
B14 Item No.	B07.2 Heat No.	B05 Rol./plate/ Test No.	B05 Reference (heat) treatment	C01 C01	C02/ C03 C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method
01	332122	59629		K1	LV	-51	CHP-V	CHP-V	
01	332122	59647		K1	LV	-51	CHP-V	CHP-V	
03	332122	59623		K1	LV	-51	CHP-V	CHP-V	

C70-C99 Chemical composition % - Heat analysis									
B07.2 Heat No.	C70 Y	C	Si	MN	P	S	N	CU	MO
332122		0,179	0,383	1,19	0,009	0,0019	0,0070	0,028	0,007
B07.2 Heat No.	C70 Y	B	CA	AL-T					
332122		0,0002	0,0017	0,031					

A04 201702703 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.
QM-System: Certification as per ISO 9001



Manufacturer's mark



B. MUELLER
Test House Manager

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

Inspector's stamp Date 06.02.09

KW 1

A08/ Manufacturer's order/ A03 Certificate No.

A10 Advice of dispatch No./ Date of dispatch

Sheet



MS 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch 329272-06.02.09		A03 Manufacturer's order/ A03 Certificate No. 345609-001		Sheet 4
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991				B01 Product HOT ROLLED PLATES		
MATERIAL TEST REPORT (MTR)						
A05 Established inspecting body		A06 Purchaser		A07.1 No. ED10520-J1010-IG		
DH		Final receiver		A07.2 No. EDMONTON STEEL, EDMONTON		
B02/ Steel design. SA516-70				SA20-S5		
B03 Any suppl. requirements DIL-HUE-2-R24-2007-11-20						
D01 Marking and identification, surface appearance, shape and dimensional properties						
ITEM NO.: 01.03						
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS						
SURFACE AS PER ASME-SA20						
THICKNESS AS PER ASME-SA20						
LENGTH AND WIDTH AS PER ASME-SA20						
FLATNESS AS PER 1/2-ASME-SA20						
A04		Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		A01		
		QM-System: Certification as per ISO 9001		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		
		B. MUELLER Test House Manager		Inspector's stamp AHB		Date 06.02.09 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)

A03 Established inspecting body A08 Purchaser EDMONTON STEEL, EDMONTON A07.1 No. ED10528-J1010-1G
 DEH Final receiver EDMONTON STEEL, EDMONTON A07.2 No.

B02/ Steel design SA516-70
 903 Any suppl. ASME-2A:07+A08
 requirements DIL-HUE-2-R24-2007-11-20

SA20-S5

A10 Advice of dispatch No./ Date of dispatch 333525-31.03.09

A01 Manufacturer's order/ Certificate No. 345557-002

B01 Product HOT ROLLED PLATES

Sheet 1/...

15194

B01-B99 Description of the product									
B14 Item No.	B03 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	0,8750 x	96,50000 x	480,00000 x	5214 N	N	333517	30278-01	
02	1	0,8750 x	96,50000 x	480,00000 x	5214 N	N	333517	30278-02	
02	1	0,8750 x	96,50000 x	480,00000 x	5214 N	N	333517	30278-03	
**	3				15642				
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	333505	31738-01	
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	333505	31738-02	
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	333516	30242-01	
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	333516	30242-02	
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	333516	30243-01	
03	1	0,8750 x	120,50000 x	480,00000 x	6510 N	N	333516	30243-02	
**	6				39060				
06	1	1,2500 x	97,00000 x	480,00000 x	7487 N	N	333502	34918-01	
06	1	1,2500 x	97,00000 x	480,00000 x	7487 N	N	333502	34918-02	
**	2				14974				
***	11				69676				

B04 Product delivery condition

ITEM NO.: 01-04,06-07
 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. 2012/02/03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

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

DR. CH. DILG
 Test House Manager

Inspector's stamp Date 01.04.09

PP 1

QM-System: Certification as per ISO 9001

Manufacturer's mark



DILLINGER HÜTTE

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

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

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A08 Purchaser EDMONTON STEEL, EDMONTON A07.1 No. ED10528-J1010-LG
DH Final receiver EDMONTON STEEL, EDMONTON A07.2 No.

E02/ Steel design. SA516-70
B03 Any suppl. ASME-2A:07-A08
requirements DIL-E03-2:R24-2007-11-20

SA20-S5

SA20-S5

B05 Marking of the product

ITEM NO.: 01-04.06-07
STEEL DESIGNATION SA516 70 MSLV SA516 50 MSLV
HEAT NO. / TRADEMARK / ROLLED PLATE NO. - TEST NO. / INSPECTOR'S STAMP

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B05 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GRF	C12 C13 C14 C15	A % LG-ZIN	A % LG-ZIN	A % LG-ZIN
02	333517	30278		K1 Q RT 49,6	RM 74,0	28,4	28,4	28,4
03	333505	31738		K1 Q RT 51,2	75,5	28,4	28,4	28,4
03	333516	30242		K1 Q RT 49,6	75,0	31,9	31,9	31,9
03	333516	30243		K1 Q RT 49,6	74,4			
06	333502	34918		K1 QV RT 50,2	75,3	35,6		

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B05 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GRF	C33 Testing method	C35 C31 Individual values	C32 Mean value
02	333517	30278		K1 O RT HBW 10/3000	RT HBW 10/3000	HB 144 143 146	144
03	333505	31738		K1 O RT HBW 10/3000	RT HBW 10/3000	HB 148 149 148	148
03	333516	30242		K1 O RT HBW 10/3000	RT HBW 10/3000	HB 142 141 142	142
03	333516	30243		K1 O RT HBW 10/3000	RT HBW 10/3000	HB 141 139 141	140
06	333502	34918		K1 O RT HBW 10/3000	RT HBW 10/3000	HB 144 141 144	143

2012/02/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

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

DR. CH. DILLG
Test House Manager

Inspector's stamp Date 01.04.09 PP 1



DILLINGER HÜTTE

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

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

A03 Established inspecting body A04 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10528-J1010-1LG
DE Final receiver EDMONTON STEEL, EDMONT A07.2 No.
SA20-S5

B02 Steel design SA516-70
B03 Any suppl. ASME-2A:07+A08
requirements. DILL-HUB-2-R24-2007-11-20

A10 Advice of dispatch No./ Date of dispatch 333525-31.03.09
A08 Manufacturer's order/ A03 Certificate No. 345557-002
B01 Product HOT ROLLED PLATES
Sheet 3/...

C40-C49 Impact test

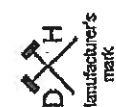
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C45 Energy	C42 Individual values AV-FTLBF	C43 Mean value
02	333517	30278		K1	LV	-51		CHP-V		AV 129	208	200
03	333505	31738		K1	LV	-51		CHP-V		AV 91	112	154
03	333516	30242		K1	LV	-51		CHP-V		AV 115	103	159
03	333516	30243		K1	LV	-51		CHP-V		AV 103	151	153
06	333502	34918		K1	LV	-51		CHP-V		AV 103	73	109

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MIN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
333502	Y	0,178	0,351	1,18	0,008	0,0007	0,0059	0,027	0,017	0,078	0,036	0,000	0,000	0,001	0,001
333505	Y	0,179	0,380	1,19	0,008	0,0006	0,0060	0,038	0,015	0,099	0,033	0,000	0,000	0,001	0,002
333516	Y	0,176	0,373	1,17	0,009	0,0007	0,0066	0,030	0,008	0,046	0,027	0,000	0,000	0,001	0,002
333517	Y	0,171	0,378	1,18	0,011	0,0010	0,0077	0,036	0,009	0,051	0,030	0,001	0,000	0,001	0,001

B07.2 Heat	B	CA	AL-T
333502	Y	0,0002	0,0020
333505	Y	0,0002	0,0019
333516	Y	0,0002	0,0025
333517	Y	0,0001	0,0027

A04 2012020203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



QM-System: Certification as per ISO 9001

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



DR. CH. DILLG
Test House Manager

Inspector's stamp Date 01.04.09 PP 1



DILLINGER HÜTTE

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

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

MATERIAL TEST REPORT (MTR)

A05 Examined inspecting body A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10528-J1010-LG
DH Final receiver EDMONTON STEEL, EDMON A07.2 No.

B02/ Steel design SA516-70

B03 Any suppl. ASME-2A:07+A03

requirements DIL-HUE-2-R24-2007-11-20

SA20-S5

A10 Advice of dispatch No./
Date of dispatch 333525-31.03.09

A08/ Manufacturer's order/
A03 Certificate No. 345557-002

B01 Product

HOT ROLLED PLATES

Sheet

4/...

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	FO-02= 0,39	FO-55= 0,16	FO-78= 0,05	FO-91= 6,6
333502	FO-02= 0,40	FO-55= 0,19	FO-78= 0,05	FO-91= 6,6
333505	FO-02= 0,38	FO-55= 0,11	FO-78= 0,04	FO-91= 6,6
333516	FO-02= 0,38	FO-55= 0,13	FO-78= 0,04	FO-91= 6,9
333517	FO-02= 0,38	FO-55= 0,13	FO-78= 0,04	FO-91= 6,9

C95 Ladle treatment

ITEM NO.: 01-04,06-07
HEAT OF THE INDICATED ITEM: VACUUM DEGASSED / SULPHIDE SHAPE CONTROL

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	Test No.	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
333502	34644	K1 0,177	0,346	1,16	0,008	0,0012	0,0056	0,025	0,017	0,077	0,035	0,001	0,000	0,001	0,001
333502	34916	K1 0,177	0,352	1,17	0,007	0,0010	0,0062	0,026	0,018	0,077	0,037	0,001	0,000	0,000	0,001
333505	31738	K1 0,173	0,381	1,16	0,008	0,0009	0,0062	0,038	0,015	0,102	0,031	0,001	0,000	0,001	0,002
333505	32650	K1 0,176	0,386	1,17	0,008	0,0010	0,0065	0,032	0,016	0,089	0,034	0,001	0,000	0,001	0,002
333516	29660	K1 0,172	0,371	1,15	0,009	0,0009	0,0064	0,029	0,009	0,045	0,026	0,000	0,000	0,001	0,002
333516	30166	K1 0,175	0,376	1,15	0,009	0,0005	0,0064	0,030	0,007	0,045	0,027	0,000	0,000	0,000	0,002
333517	30388	K1 0,159	0,382	1,17	0,010	0,0015	0,0069	0,036	0,008	0,051	0,030	0,001	0,000	0,000	0,001

Z01/2020/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

AHB

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

A01



Manufacturer's mark

DR. CH. DILLG

Test House Manager

Inspector's stamp

Date 01.04.09

PP 1



DILLINGER HÜTTE



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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		333525-31.03.09		345557-002		5/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMONTON		A07.1 No. ED10528-J1010-1G
DH		Final receiver		EDMONTON STEEL, EDMONTON		A07.2 No.
				SA20-S5		
B02 Steel design. SA516-70						
B03 Any suppl. ASME-2A:07+A08						
requirements DIL-HUB-2:R24-2007-11-20						
C70-C99 Chemical composition % - Product analysis						
B07.2 Heat	B07.1 Test No.	C	B	CA	AL-F	
333502	34644	K1	0,0001	0,0019	0,048	
333502	34916	K1	0,0000	0,0019	0,046	
333505	31738	K1	0,0000	0,0018	0,037	
333505	32650	K1	0,0002	0,0021	0,042	
333516	29660	K1	0,0002	0,0024	0,035	
333516	30166	K1	0,0002	0,0023	0,036	
333517	30388	K1	0,0000	0,0023	0,044	
C94 Product analysis Carbon equivalent / Alloying restrictions						
B07.2 Heat	B07.1 Test No.	C	FO-02=	FO-02=	FO-02=	
333502	34644	K1	FO-02=	0,39	FO-02=	0,15
333502	34916	K1	FO-02=	0,39	FO-02=	0,16
333505	31738	K1	FO-02=	0,39	FO-02=	0,19
333505	32650	K1	FO-02=	0,39	FO-02=	0,17
333516	29660	K1	FO-02=	0,38	FO-02=	0,11
333516	30166	K1	FO-02=	0,38	FO-02=	0,11
333517	30388	K1	FO-02=	0,37	FO-02=	0,13
C94 Carbon equivalent formula / Alloying restrictions						
FO-02 = C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15						
FO-55 = C + Mo + Ni + Cr						
FO-78 = Cr + Mo						
FO-91 = Mn / C						
A01						
A04		DR. CH. DILG Test House Manager		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		PP 1
201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		QM-System: Certification as per ISO 9001				
		Manufacturer's mark				



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		A40 Advice of dispatch Date of dispatch 333525-31.03.09	A03 Manufacturer's order/ A03 Certificate No. 345557-002	Sheet 6
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10528-J1010-1G	B01 Product HOT ROLLED PLATES	
Final receiver EDMONTON STEEL, EDMON				
802 Steel design. SA516-70		SA20-S5		
803 Any suppl. requirements		DIL-HUE-2-R24-2007-11-20		
D01 Marking and identification, surface appearance, shape and dimensional properties				
ITEM NO.: 01-04,06-07				
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS				
SURFACE AS PER ASME-SA20				
THICKNESS AS PER ASME-SA20				
LENGTH AND WIDTH AS PER ASME-SA20				
FLATNESS AS PER 1/2-ASME-SA20				
				
A04		A01		
 Manufacturer's mark		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		
2012/02/2303 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		DR. CH. DILG Test House Manager		
QM-System: Certification as per ISO 9001		Inspector's stamp Date 01.04.09 PP 1		



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		356925-08.04.10		353891-002		1/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body DH		A06 Purchaser EDMONTON STEEL, EDMONTON		A07.1 No. ED10547-J1010-ER			
		Final receiver EDMONTON STEEL, EDMONTON		A07.2 No.			
B02/ Steel design: SA516-70				SA20-S5			
B03 Any suppl. requirements		ASME-II-A:07+A09					
		DIL-HVE-2:R30-2010-01-31					



15459

B01-B99 Description of the product.

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

B04 Product delivery condition

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

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

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

COOLING IN STILL AIR

A04	201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillinger/Saar inspection department	A01
	QM-System: Certification as per ISO 9001		
	DR. CH. DILG Test House Manager	Inspector's stamp	Date 08.04.10
			PP 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

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

A10 Advice of dispatch No./
Date of dispatch
356925-08.04.10

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

Sheet
2/...

MATERIAL TEST REPORT (MTR)

A05 Established/Inspecting body
DH

A06 Purchaser
EDMONTON STEEL, EDMON

A07.1 No. ED10547-J1010-ER

A07.2 No. SA20-S5

B02/ Steel design. SA516-70

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

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

B06 Marking of the product

ITEM NO.: 01-03.05-06.08-09

STEEL DESIGNATION SA516 70 MLTV SA516 60 MLTV

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

B07-B99 Further information about the product

ITEM NO.: 01-03.05-06.08-09

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

C10-C29 Tensile test

B14 B07.2 Item Heat No.	B07.1 Rol-plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C10 C11 KSI RPD2	C12 RM	C13 A % LO=8IN	C14-C15 A % LO=2IN
02. 344392 72568		K1 Q	RT	50,3	76,0	26	42
03. 344657 76977		K1 Q	RT	52,3	75,3		
05. 344650 04162		K1 Q	RT	49,9	73,8	30	
06. 343716 58575		K1 Q	RT	51,8	76,0	30	
06. 343716 58576		K1 Q	RT	48,1	74,7	30	
09. 343972 39374		K1 QV	RT	50,9	77,9		34
09. 344390 72572		K1 QV	RT	48,7	74,5		37
09. 344390 72573		K1 QV	RT	48,1	74,2		42

C30-C39 Hardness test

B14 B07.2 Item Heat No.	B07.1 Rol-plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C30 C31 Individual values	C32 Mean value
02. 344392 72568		K1	RT HBW 10/3000	HB 148	148
03. 344657 76977		K1	RT HBW 10/3000	HB 137	143
05. 344650 04162		K1	RT HBW 10/3000	HB 144	147

2011Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

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



DR. CH. DILG
Test House Manager

Manufacturer's mark

Inspector's stamp
Date 08.04.10
PP 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

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

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10547-J1010-ER

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

B02 Steel design SA516-70

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

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

A10 Advice of dispatch No./
Date of dispatch 356925-08.04.10

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

B01 Product

HOT ROLLED PLATES

Sheet

3/...

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C33 Testing method	C35 C31 Individual values	C32 Mean value
06	343716	58575		X1	O	RT	HBW 10/3000	HB 145	148
06	343716	58576		X1	O	RT	HBW 10/3000	HB 144	149
09	343972	39374		X1	O	RT	HBW 10/3000	HB 146	146
09	344390	72572		X1	O	RT	HBW 10/3000	HB 142	146
09	344390	72573		X1	O	RT	HBW 10/3000	HB 143	143

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C41 Width of test piece	C44 Type of test piece	C46 Energy	C45 C42 Individual values AV-F118F	C43 Mean value
02	344392	72568		X1	LV	-51		CHP-V	AV 99	136	86
03	344657	76977		X1	LV	-51		CHP-V	AV 157	194	188
05	344650	04162		X1	LV	-51		CHP-V	AV 201	126	123
06	343716	58575		X1	LV	-51		CHP-V	AV 198	159	191
06	343716	58576		X1	LV	-51		CHP-V	AV 112	209	117
09	343972	39374		X1	LV	-51		CHP-V	AV 114	108	80
09	344390	72572		X1	LV	-51		CHP-V	AV 97	105	131
09	344390	72573		X1	LV	-51		CHP-V	AV 100	128	114

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat No.	C70	C	Si	Mn	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
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

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

AGB

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

DR. CH. DILG
Test House Manager

Inspector's stamp Date 08.04.10

PP 1

Manufacturer's mark



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

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

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body: A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. ED10547-J1010-ER

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

B02/ Steel design. SA516-70

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

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

A10. Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03. Certificate No.	Shoot
35625-08.04.10	353891-002	4/...
B01. Product HOT ROLLED PLATES		

C70-C99 Chemical composition % - Heat analysis

	C70	C	Si	Mn	P	S	N	CU	MO	NI	CR	V	NB	SN	TH
B07.2 Heat 344657	Y	0,174	0,338	1,19	0,011	0,0009	0,0059	0,028	0,015	0,035	0,029	0,000	0,000	0,000	0,002
B07.2 Heat	C70														
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

ZD1702/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

Dr. CH. DILG
DR. CH. DILG
Test House Manager

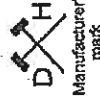


AG der Dillinger Hüttenwerke
Postfach 1580, D-66748 Dillingen/Saar
Inspection department

Inspector's stamp

Date 08.04.10

pp 1





DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		356925-08.04.10	358891-002	5/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser Final receiver	A07.1 No. ED10547-J1010-ER A07.2 No. SA20-SS		
B02/ Steel design. SA516-70				
B03 Any suppl. ASME-II-A:07+A09				
requirements DIL-HUE-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

	C01	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
B07.2 Heat	B07.1 Test No.														
343716	58576	K1	0.177	0.382	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	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	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	0.009	0.0008	0.0066	0.022	0.018	0.037	0.034	0.000	0.000	0.001	0.002
344392	72569	K1	0.175	0.369	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	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	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	0.009	0.0009	0.0066	0.028	0.019	0.035	0.028	0.000	0.000	0.001	0.002
B07.2 Heat	B07.1 Test No.														
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										

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

QM-System: Certification as per ISO 9001



Manufacturer's mark



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

DR. CH. DILG
Test House Manager

Inspector's stamp

Date 08.04.10

PP

A01



DILLINGER HÜTTE

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

A02	INSPECTION CERTIFICATE 3.1	AS PER EN 10204:2004	A10	Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
A02	INSPECTION CERTIFICATE 3.1.B	AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		356925-08.04.10	353891-002	6

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

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

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Hot	B07.1 Test No.	C01									
		KL	FO-02=	0,38	FO-51=	0,001	FO-55=	0,08			
343716	58576	KL	FO-02=	0,39	FO-51=	0,000	FO-55=	0,10			
343972	39374	KL	FO-02=	0,38	FO-51=	0,000	FO-55=	0,10			
344390	72572	KL	FO-02=	0,39	FO-51=	0,000	FO-55=	0,11			
344392	72567	KL	FO-02=	0,38	FO-51=	0,000	FO-55=	0,10			
344392	72568	KL	FO-02=	0,38	FO-51=	0,001	FO-55=	0,11			
344392	72570	KL	FO-02=	0,37	FO-51=	0,000	FO-55=	0,09			
344850	04162	KL	FO-02=	0,38	FO-51=	0,000	FO-55=	0,11			
344857	76977	KL	FO-02=	0,38	FO-51=	0,000	FO-55=	0,11			

C94 Carbon equivalent formula / Alloying restrictions

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

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

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



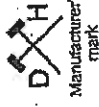
A04 201/203203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

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

DR. CH. DILLG
Test House Manager

Inspector's stamp Date 08.04.10 PP 1

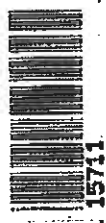




DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		1/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body		A06 Purchaser		EDMONTON STEEL, EDMON		HOT ROLLED PLATES
DE		Final receiver		EDMONTON STEEL, EDMON		
B02/ Steel design.		SA516-70		A071 No. ED10551-J1010-ER		
B03 Any suppl. requirements		ASME-II-A:07+A09		A072 No.		
		DIL-HUE-2:R30-2010-01-31				



B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
			INCH		KG				
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	348840	11315-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350041	63961-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350041	63961-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	17648-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	17648-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	17648-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	17724-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	17724-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	17724-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	20921-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	20921-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	20921-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	21295-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	21295-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	21295-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	21306-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	21306-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	21322-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	21322-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350399	21322-03	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39539-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39539-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	39694-02	39694-02	

A04	201202203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		Inspector's stamp Date 17.09.10	BM

QM-System: Certification as per ISO 9001



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 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		B01 Product HOT ROLLED PLATES		
B02/ Steel design. SA516-70		A07.1 No. ED10551-J1010-ER		
B03 Any suppl. requirements		A07.2 No. ED10551-J1010-ER		
DIL-HUE-2:R30-2010-01-31		SA20-S5		

B01-B99 Description of the product.									
B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39694-03	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39715-02	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39774-01	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39774-02	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39774-03	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39799-01	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39799-02	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39799-03	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39959-01	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39959-02	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39959-03	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39965-01	350405
01	1	0,6250 x	120,50000 x	480,00000 x	4650	N	350405	39965-02	350405
**	36				167400				
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15513-01	350401
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15513-02	350401
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15513-03	350401
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15526-01	350401
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15526-02	350401
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15526-03	350401
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15608-01	350401
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15610-01	350401
02	1	0,7500 x	120,50000 x	480,00000 x	5580	N	350401	15610-02	350401

A04		Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	Inspector's stamp Date 17.09.10	BM 1
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DILLINGER HÜTTE

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

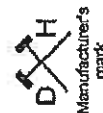
A02	INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10	Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
	INSPECTION CERTIFICATE 3.1.3 AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991			369429-17.09.10	357359-002	3/...
MATERIAL TEST REPORT (MTR)						
A05	Established inspecting body	A06 Purchaser	A07.1 No. ED10551-J1010-ER			
DH		Final receiver	A07.2 No. EDMONTON STEEL, EDMONTON			
SA516-70			SA20-S5			
B02/ Steel design						HOT ROLLED PLATES
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
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15610-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15626-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15626-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15645-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15645-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350401	15645-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350402	15169-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350402	15399-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350402	15399-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350402	15399-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	39714-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	39946-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	39946-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	39946-03	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	39963-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	39963-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	40537-01	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	40537-02	
**	27				150660				
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N	N	350403	13199-01	
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N	N	350403	13199-02	
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N	N	350403	13199-03	
03	1	0,7500 x	150,00000 x	480,00000 x	6946 N	N	350403	13308-01	

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

QM-System: Certification as per ISO 9001



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



B. BALDAUF
Test House Manager

Inspector's stamp Date 17.09.10

BM 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	4/...
MATERIAL TEST REPORT (MTR)		B01 Product		
A05 Established inspecting body		HOT ROLLED PLATES		
Final receiver				
EDMONTON STEEL, EDMONTON		A07.1 No. ED10551-J1010-ER		
EDMONTON STEEL, EDMONTON		A07.2 No.		
SA20-S5				
B02 Steel design. SA516-70				
B03 Any suppl. ASME-II-A:07+A09				
requirements DIL-HUE-2:R30-2010-01-31				

B01-B99 Description of the product

B14 Item No.	B08 Number of places	B09 Thickness	B16 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
03	1	0,7500 x	150,00000 x	480,00000 x	6946	N	350403	13308-02	
03	1	0,7500 x	150,00000 x	480,00000 x	6946	N	350403	13308-03	
**	6				41676				
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	11964-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	11964-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	11964-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	11979-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	11979-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	11979-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	12013-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	12013-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	12013-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	12280-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	12280-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	12638-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	12638-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350403	12638-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350404	11955-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350404	11955-02	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350404	11955-03	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350405	05031-01	
04	1	0,8750 x	120,50000 x	480,00000 x	6510	N	350405	05031-02	
**	19				123690				

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

QM-System: Certification as per ISO 9001

AGB

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

B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM



Manufacturer's mark

A01



DILLINGER HÜTTE

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

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

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

A04		2012/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
D/H		QM-System: Certification as per ISO 9001		A01			
Manufacturer's mark		B. BALDRAUF Test House Manager		Inspector's stamp		Date 17.09.10	
				Date 17.09.10		BM 1	



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No.7 Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	6/...
MATERIAL TEST REPORT (MTR)		B01 Product HOT ROLLED PLATES		
A05 Established inspecting body DH		A07.1 No. ED10551-J1010-ER A07.2 No.		
A06 Purchaser EDMONTON STEEL, EDMON				
Final receiver EDMONTON STEEL, EDMON				
B02 Steel design. SA516-70		SA20-S5		
B03 Any suppl. requirements		ASME-II-A:07+A09 DIL-HUB-2:R30-2010-01-31		

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
07	1	1,0000 x	96,50000 x	480,00000	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 MSLV SA516 60 MSLV
HEAT NO.: / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

A04	2017/02/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar inspection department	A01
	QM-System: Certification as per ISO 9001		
Manufacturer's mark	B. BALDAUF Test House Manager	Inspector's stamp	Date 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 359429-17.09.10	A03/ Manufacturer's order/ A03 Certificate No. 357359-002	Sheet 7/...
A05 Established inspecting body DH		B01 Product HOT ROLLED PLATES		
B02/ Steel design. SA516-70		A07.1 No. ED10551-J1010-ER		
B03 Any suppl. ASME-II-A-07+A09 requirements DIL-HUE-2:R30-2010-01-31		A07.2 No. SA20-S5		

B07-S99 Further information about the product

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

C10-C29 Tensile test

B14 B07.2 Item Heat No. No.	B07.1 Relig./ Test No.	Reference (heat) treatment	C01 Temp. °C	C02 Temp. °C	C03 Temp. °C	C10 Temp. °C	C11 Temp. °C	C12 Temp. °C	C13 Temp. °C	A % Lo-EN	C14-C15
01 348840-11315	01 350041 63961	RT	RT	RT	RT	RT	RT	RT	RT	27	
01 350041 63961	01 350399 17648	RT	RT	RT	RT	RT	RT	RT	RT	27	
01 350399 17648	01 350399 17724	RT	RT	RT	RT	RT	RT	RT	RT	28	
01 350399 20321	01 350399 21295	RT	RT	RT	RT	RT	RT	RT	RT	25	
01 350399 21295	01 350399 21306	RT	RT	RT	RT	RT	RT	RT	RT	26	
01 350399 21322	01 350405 39539	RT	RT	RT	RT	RT	RT	RT	RT	26	
01 350405 39539	01 350405 39694	RT	RT	RT	RT	RT	RT	RT	RT	28	
01 350405 39715	01 350405 39774	RT	RT	RT	RT	RT	RT	RT	RT	31	
01 350405 39799	01 350405 39959	RT	RT	RT	RT	RT	RT	RT	RT	27	
01 350405 39965	01 350401 15513	RT	RT	RT	RT	RT	RT	RT	RT	28	
02 350401 15513	02 350401 15526	RT	RT	RT	RT	RT	RT	RT	RT	28	
02 350401 15608	02 350401 15610	RT	RT	RT	RT	RT	RT	RT	RT	26	
02 350401 15610	02 350401 15626	RT	RT	RT	RT	RT	RT	RT	RT	30	
02 350401 15626		RT	RT	RT	RT	RT	RT	RT	RT	28	

A04 207202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.



Manufacturer's mark

QM-System: Certification as per ISO 9001

B. Baldadif

B. BALDADIF
Test House Manager

AHB

Inspector's stamp

Date 17.09.10

BM 1

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



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

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

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body

A06 Purchaser

Final receiver

EDMONTON STEEL, EDMON

EDMONTON STEEL, EDMON

SA20-S5

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

A10 Advice of dispatch No./
Date of dispatch

369429-17.09.10

A08 Manufacturer's order/
A03 Certificate No.

357359-002

S01 Product

HOT ROLLED PLATES

Sheet

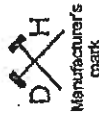
8/...

C10-C29 Tensile test

B14 B07.2 Heat No.	B07.1 Rolled plate/ Test No.	B05 Reference (heat) treatment	C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11 C12 C13 C14 C15	C12 RM	C13 A %	C14-C15 A %
02 350401	15645	KL Q	RT	48,9	74,0	29
02 350402	15169	KL Q	RT	49,2	75,1	28
02 350402	15399	KL Q	RT	50,5	75,3	28
02 350405	39714	KL Q	RT	49,6	75,3	26
02 350405	39946	KL Q	RT	49,0	75,4	28
02 350405	39963	KL Q	RT	48,6	74,5	27
02 350405	40537	KL Q	RT	46,5	73,7	27
03 350403	13199	KL Q	RT	50,0	75,5	27
03 350403	13208	KL Q	RT	49,3	75,3	26
04 350403	11964	KL Q	RT	49,9	74,1	30
04 350403	11979	KL Q	RT	49,2	74,7	29
04 350403	12013	KL Q	RT	49,0	74,0	29
04 350403	12280	KL Q	RT	49,9	74,1	27
04 350403	12638	KL Q	RT	50,0	74,5	28
04 350404	11955	KL Q	RT	49,6	74,7	29
04 350405	05031	KL Q	RT	48,9	74,8	30
05 350402	14854	KL Q	RT	49,7	75,1	27
07 350404	06356	KL Q	RT	49,3	75,0	28
07 350404	06357	KL Q	RT	50,0	74,1	29
07 350404	06943	KL Q	RT	49,7	74,1	30
07 350404	07812	KL Q	RT	49,6	74,4	30
07 350404	07813	KL Q	RT	50,3	74,0	30
07 350404	10672	KL Q	RT	50,2	74,2	30

2017/07/20/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



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

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

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

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A08 Purchaser EDMONTON STEEL, EDMONT A07.1 No. ED10551-J1010-ER A07.2 No. SA20-S5

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

B02/ Steel design. SA516-70

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

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

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

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

1801 Product

HOT ROLLED PLATES

Shot 9/...

C10-C29 Tensile test

S14 B07.2 Item Heat No.	B07.1 Ref. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 Temp. GR.F	C10 C11 KSI RP02	C12 RM	C13 A % LP=8IN	C14-C15
07 350404 11097			KL Q RT	48,3	73,8	30	
07 350405 05063			KL Q RT	50,2	74,7	29	
07 350405 05064			KL Q RT	50,5	74,4	28	
07 350405 05065			KL Q RT	50,0	74,1	31	

C30-C39 Hardness test

B14 B07.2 Item Heat No.	B07.1 Ref. plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 Temp. GR.F	C30 C31 Method of test	C32 C33 Individual values	C32 Mean value
01 348840			KL O	RT HBW 10/3000	HB 147	148
01 350041			KL O	RT HBW 10/3000	HB 141	142
01 350399			KL O	RT HBW 10/3000	HB 146	146
01 350399			KL O	RT HBW 10/3000	HB 148	145
01 350399			KL O	RT HBW 10/3000	HB 146	145
01 350399			KL O	RT HBW 10/3000	HB 144	144
01 350399			KL O	RT HBW 10/3000	HB 144	143
01 350399			KL O	RT HBW 10/3000	HB 142	142
01 350399			KL O	RT HBW 10/3000	HB 142	142
01 350405			KL O	RT HBW 10/3000	HB 142	142
01 350405			KL O	RT HBW 10/3000	HB 142	142
01 350405			KL O	RT HBW 10/3000	HB 144	144
01 350405			KL O	RT HBW 10/3000	HB 145	145
01 350405			KL O	RT HBW 10/3000	HB 145	145
01 350405			KL O	RT HBW 10/3000	HB 144	145
01 350405			KL O	RT HBW 10/3000	HB 139	139
02 350401			KL O	RT HBW 10/3000	HB 142	142

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

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

Inspection department

Inspector's stamp

Date 17.09.10

1



Manufacturer's mark

QM-System: Certification as per ISO 9001



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

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

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body

DH

A06 Purchaser

EDMONTON STEEL, EDMON

A07.1 No. ED10551-J1010-ER

Final receiver

EDMONTON STEEL, EDMON

A07.2 No.

SA20-SS

B02/ Steel design.

SAS16-70

B03 Any suppl.

ASME-II-A:07+A09

requirements

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

A10 Advice of dispatch No./

Date of dispatch

369429-17.09.10

A08/ Manufacturer's order/

A03 Certificate No.

357359-002

Sheet

10/...

B01 Product

HOT ROLLED PLATES

C30-C39 Hardness test

B14 Item No.

B07.2 Heat No.

B07.1 Roll plate/

Test No.

B05 Reference (heat) treatment

C01

C02/C01

C03 Temp.

GR.F

C30 Method of test

C35 Individual values

C32 Mean value

A04

Manufacturer's mark

D/H

2010020203

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

QM-System: Certification as per ISO 9001

AG der Dillinger Hüttenwerke

Postfach 1580, D-66748 Dillingen/Saar

inspection department

Inspector's stamp

Date 17.09.10

BM 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No/ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991				
MATERIAL TEST REPORT (MTR)		369429-17.09.10	357359-002	11/...

A05 Established inspecting body		A06 Purchaser	EDMONTON STEEL, EDMON	A07.1 No. ED10551-J1010-ER	A01 Product HOT ROLLED PLATES
DH		Final receiver	EDMONTON STEEL, EDMON	A07.2 No.	

DH		369429-17.09.10		
A06 Purchaser		357359-002		
Final receiver		B01 Product		
EDMONTON STEEL, EDMON		SA20-S5		
EDMONTON STEEL, EDMON				

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. GRF	C30 Method of test	C35 Individual values	C32 Mean value
07	350404	07812		K1	O	RT	HBW 10/3000	HB 145	145
07	350404	07813		K1	O	RT	HBW 10/3000	HB 144	144
07	350404	10672		K1	O	RT	HBW 10/3000	HB 146	144
07	350404	11097		K1	O	RT	HBW 10/3000	HB 144	144
07	350405	05063		K1	O	RT	HBW 10/3000	HB 146	146
07	350405	05064		K1	O	RT	HBW 10/3000	HB 144	144
07	350405	05065		K1	O	RT	HBW 10/3000	HB 144	144

C40-C49 Impact test									
B14 Item No.	B07.2 Heat No.	B07.1 Rel. plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GRF	C40 Width of test piece	C44 Testing method	C43 Mean value
01	348840	11315		K1	LV	-51	CHP-V	AV 101	121
01	350041	63961		K1	LV	-51	CHP-V	AV 208	195
01	350399	17648		K1	LV	-51	CHP-V	AV 193	143
01	350399	17724		K1	LV	-51	CHP-V	AV 117	149
01	350399	20921		K1	LV	-51	CHP-V	AV 124	135
01	350399	21295		K1	LV	-51	CHP-V	AV 119	198
01	350399	21306		K1	LV	-51	CHP-V	AV 141	145
01	350399	21322		K1	LV	-51	CHP-V	AV 122	161
01	350405	39539		K1	LV	-51	CHP-V	AV 184	171
01	350405	39694		K1	LV	-51	CHP-V	AV 208	192
01	350405	39715		K1	LV	-51	CHP-V	AV 104	179
01	350405	39774		K1	LV	-51	CHP-V	AV 119	150
01	350405	39799		K1	LV	-51	CHP-V	AV 129	152
01	350405	39959		K1	LV	-51	CHP-V	AV 198	163
01	350405	39959		K1	LV	-51	CHP-V	AV 150	185

A04 2017/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

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

B. BALDAUF
Test House Manager
Inspector's stamp
Date 17.09.10
BM



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.3 AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991

MATERIAL TEST REPORT (NTR)

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

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

B02 Steel design SA516-70

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

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

SA20-S5

A10 Adv/co of dispatch No./
Date of dispatch

369429-17.09.10

A08/ Manufacturer's order/
A03 Certificate No.

357359-002

801 Product

HOT ROLLED PLATES

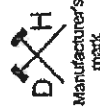
Sheet

12/...

C40-C49 Impact test

B14 Item	B07.2 Heat No.	B07.1 Rollplate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 Individual values AV±FTLEF	C43 Mean value
01	350405	39965		K1	LV	-51		CHP-V			147	190
02	350401	15513		K1	LV	-51		CHP-V			150	127
02	350401	15526		K1	LV	-51		CHP-V			209	128
02	350401	15608		K1	LV	-51		CHP-V			131	130
02	350401	15610		K1	LV	-51		CHP-V			192	186
02	350401	15626		K1	LV	-51		CHP-V			212	190
02	350401	15645		K1	LV	-51		CHP-V			207	198
02	350401	15169		K1	LV	-51		CHP-V			118	201
02	350402	15399		K1	LV	-51		CHP-V			164	136
02	350405	39714		K1	LV	-51		CHP-V			201	116
02	350405	39946		K1	LV	-51		CHP-V			124	125
02	350405	39963		K1	LV	-51		CHP-V			192	124
02	350405	40537		K1	LV	-51		CHP-V			131	195
02	350403	13199		K1	LV	-51		CHP-V			148	117
03	350403	13308		K1	LV	-51		CHP-V			188	142
03	350403	11964		K1	LV	-51		CHP-V			106	181
04	350403	11979		K1	LV	-51		CHP-V			142	130
04	350403	12013		K1	LV	-51		CHP-V			118	146
04	350403	12280		K1	LV	-51		CHP-V			187	195
04	350403	12638		K1	LV	-51		CHP-V			157	116
04	350404	11955		K1	LV	-51		CHP-V			127	125
04	350405	05031		K1	LV	-51		CHP-V			128	190
05	350402	14854		K1	LV	-51		CHP-V			125	136
07	350404	06356		K1	LV	-51		CHP-V			129	145

A04



201702/203 Wa hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

AG der Dillinger Hüttenwerke



Postfach 1580, D-66748 Dillingen/Saar
Inspection department

B. BAIDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM 1



DILLINGER HÜTTE

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

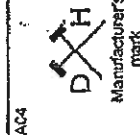
A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Shoot	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10		357359-002		13/...	
MATERIAL TEST REPORT (MTR)							
A05 Established inspecting body		A06 Purchaser		B01 Product		HOT ROLLED PLATES	
DH		EDMONTON STEEL, EDMONTON		A07.1 No. ED10551-J1010-ER			
Final receiver		EDMONTON STEEL, EDMONTON		A07.2 No.			
B02/ Steel design.		SA516-70					
B03 Any suppl.		ASME-II-A:07+A09					
requirements		DIL-HUE-2:R30-2010-01-31					

C40-C49 impact test

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

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MS	P	S	N	CU	MO	NI	CR	V	NE	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



Z01202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001



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

B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM



DILLINGER HÜTTE

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

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

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

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

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

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

Sheet 14/...

B01 Product
HOT ROLLED PLATES

C70-C99 Chemical composition % - Heat analysis

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

C94 Heat analysis Carbon equivalent / Alloying restrictions

	FO-02=	FO-51=	FO-55=	FO-78=	FO-91=
B07.2 Heat					
348840	0,40	0,40	0,001	0,04	6,4
350041	0,38	0,38	0,001	0,06	7,3
350399	0,39	0,39	0,001	0,06	6,8
350401	0,38	0,38	0,001	0,04	5,9
350402	0,39	0,39	0,001	0,04	6,8
350403	0,38	0,38	0,001	0,04	6,9
350404	0,39	0,39	0,000	0,04	6,8
350405	0,39	0,39	0,001	0,05	6,9

C95 Ladle treatment

ITEM NO.: 01-05.07-08
HEAT OF THE INDICATED ITEM: VACUUM DEGRESSED / SULPHIDE SHAPE CONTROL

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



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch:	A01 Manufacturer's order/ Certificate No.	Sheet												
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	15/...												
MATERIAL TEST REPORT (NTR)		S01 Product														
A05 Established inspecting body		HOT ROLLED PLATES														
DH	Final receiver															
A06 Purchaser		A07.1 No. ED10551-J1010-ER														
EDMONTON STEEL, EDMON		A07.2 No.														
EDMONTON STEEL, EDMON		SA20-S5														
S02/ Steel design		SA516-70														
S03 Any suppl.		ASME-II-A:07+A09														
requirements		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																
Heat	Test No.	C01	C	Si	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
B07.2	B07.1	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
248840	11315	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	63959	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
350041	63961	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
350399	21322	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
350401	15608	K1	0,168	0,389	1,17	0,010	0,0011	0,0055	0,036	0,011	0,063	0,027	0,001	0,001	0,001	0,003
350402	14890	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
350402	15169	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	11979	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	0,001	0,002
350404	11955	K1	0,172	0,366	1,15	0,008	0,0012	0,0062	0,041	0,008	0,062	0,031	0,000	0,001	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

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

QM-System: Certification as per ISO 9001



Manufacturer's mark

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

Inspector's stamp

Date 17.09.10

BM

A01

A04



DILLINGER HÜTTE

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

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

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body

DH

B07/ Steel design. SA516-70

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

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

A06 Purchaser EDMONTON STEEL, EDMON

A07.1 No. ED10551-J1010-ER

A07.2 No.

Final receiver EDMONTON STEEL, EDMON

SA20-S5

A10 Advice of dispatch No./
Date of dispatch

369429-17.09.10

A08/ Manufacturer's order/
A03 Certificate No.

357359-002

Sheet

16/...

B01 Product

HOT ROLLED PLATES

C70-C99 Chemical composition % - Product analysis

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

C94 Product analysis Carbon equivalent / Alloying restrictions

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

20/12/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.

QM-System: Certification as per ISO 9001

D/H
Manufacturers
mark

AHB

B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM

A01

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



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A09/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369429-17.09.10	357359-002	17
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A08 Purchaser	A07.1 No. ED10551-JL010-ER		
DH	Final receiver	A07.2 No.		
SA20-S5				
B02/ Steel design.	SA516-70			
B03 Any suppl.	ASME-II-A:07+A09			
requirements	DIL-HUB-2:R30-2010-01-31			

C94-Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01			
		K1	FO-02=	FO-51=	FO-55=
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= 0,36	FO-51= 0,000	FO-55= 0,14

C94 Carbon equivalent formula / Alloying restrictions

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

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

ITEM NO.: 01-05,07-08
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS
SURFACE AS PER ASME-SA20
THICKNESS AS PER ASME-SA20
LENGTH AND WIDTH AS PER ASME-SA20
FLATNESS AS PER 1/2-ASME-SA20



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



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+AL:1995 + AS PER ISO 10474:1991		369817-21.09.10	357359-003	1/...
MATERIAL TEST REPORT (MTR)				

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

B02/ Steel design. SAS16-70	SA20-S5	
B03 Any suppl. requirements	DIL-HUE-2:R30-2010-01-31	

B01-B99 Description of the product.

B04 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	348840	11315-02	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350399	21306-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39694-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39715-01	
01	1	0,6250 x	120,50000 x	480,00000 x	4650 N	N	350405	39715-03	
**	5				23250				
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	39714-02	
02	1	0,7500 x	120,50000 x	480,00000 x	5580 N	N	350405	39714-03	
**	2				11160				
04	1	0,8750 x	120,50000 x	480,00000 x	5510 N	N	350403	12280-01	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N	N	350402	14890-01	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N	N	350402	14890-02	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N	N	350403	14124-01	
05	1	0,8750 x	150,00000 x	480,00000 x	8104 N	N	350403	14124-02	
**	4				32416				
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N	N	350402	15168-01	
06	1	0,8750 x	178,00000 x	356,00000 x	7133 N	N	350402	15168-02	
**	2				14266				
07	1	1,0000 x	96,50000 x	480,00000 x	5959 N	N	350404	06356-01	
08	1	1,1250 x	178,00000 x	356,00000 x	9171 N	N	350041	63959-01	
***	16				102732				

A04	2012/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department	AGB	Inspector's stamp Date 22.09.10	PP
D/H Manufacturer's mark		B. BALDAUF Test House Manager			



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet							
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369817-21.09.10		357359-003		2/...							
MATERIAL TEST REPORT (MTR)				B01 Product									
A05 Established inspecting body Dill		A06 Purchaser EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER									
		Final receiver EDMONTON STEEL, EDMON		A07.2 No.									
B02 Steel design SA516-70				SA20-S5									
B03 Any suppl. requirements		ASME-II-A:07+A09											
		DIL-HUE-2-R30-2010-01-31											
B04 Product delivery condition													
ITEM NO.: 01-08													
N: HT: 1670 GR.F +36 -27 GR.F													
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)													
COOLING IN STILL AIR													
B06 Marking of the product													
ITEM NO.: 01-08													
STEEL DESIGNATION SA516 70 MTLV SA516 60 MTLV													
HEAT NO. / TRADEMARK / ROLLED PLATE NO. - TEST NO. / INSPECTOR'S STAMP													
B07-B99 Further information about the product													
ITEM NO.: 01-08													
THICKNESS REDUCTION RATIO >= 3,0 IS FULFILLED (CP. A/SA20 PAR. 5.3)													
C10-C29 Tensile test													
B14 B07.2 Item Heat No.		B05 Rol/plate/ Test No.		C01 C02/ C03 C01 Temp. GR.F		C10 C11 KSI RPO2		C12 C13 RM		A % 18-8IN		C14-C15	
01 348840 11315				K1 Q		RT		51,3		27			
01 350399 21305				K1 Q		RT		50,5		26			
01 350405 39694				K1 Q		RT		50,5		28			
01 350405 39715				K1 Q		RT		50,2		31			
02 350405 39714				K1 Q		RT		49,6		26			
04 350403 12280				K1 Q		RT		49,9		27			
05 350402 14890				K1 Q		RT		49,7		29			
05 350403 14124				K1 Q		RT		49,0		26			
06 350402 15168				K1 Q		RT		49,6		30			
A04		D/H Manufacturer's mark		201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		QM-System: Certification as per ISO 9001		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01		PP 1	
								B. BALDAUF Test House Manager		Inspector's stamp		Date 22.09.10	




DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369817-21.09.10		357359-003		3/...	
MATERIAL TEST REPORT (MTR)							
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		EDMONTON STEEL, EDMON		EDMONTON STEEL, EDMON		SA20-S5	
B02/ Steel design.		SAS16-70					
B03 Any suppl.		ASME-II-A:07+A09					
requirements		DIL-HUE-2:R30-2010-01-31					

C10-C29 Tensile test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C10 C11 KSI	C12 RM	C13 %	C14-C15	
07	350404	06356		KL Q RT 49,3	RP02 49,3	75,0	28		
08	350041	63959		KL Q RT 49,2		72,4	31		
C30-C39 Hardness test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C30 Method of test	C31 Individual values	C32 Mean value		
01	348840	11315		KL Q RT HBW 10/3000		HB 147	149		
01	350399	21306		KL Q RT HBW 10/3000		HB 144	143		
01	350405	39694		KL Q RT HBW 10/3000		HB 142	142		
01	350405	39715		KL Q RT HBW 10/3000		HB 142	142		
02	350405	39714		KL Q RT HBW 10/3000		HB 144	144		
04	350403	12280		KL Q RT HBW 10/3000		HB 142	142		
05	350402	14890		KL Q RT HBW 10/3000		HB 143	144		
05	350403	14124		KL Q RT HBW 10/3000		HB 147	146		
06	350402	15168		KL Q RT HBW 10/3000		HB 143	143		
07	350404	06356		KL Q RT HBW 10/3000		HB 142	142		
08	350041	63959		KL Q RT HBW 10/3000		HB 138	139		
C40-C49 Impact test									
B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01 C02/ C03 C01 Temp. GR.F	C40 Type of test piece	C41 Width of test piece	C42 Testing method	C43 Mean value	
01	348840	11315		KL LV -51	CHP-V	CHP-V	AV 101	123	
01	350399	21306		KL LV -51	CHP-V	CHP-V	AV 141	209	
01	350405	39694		KL LV -51	CHP-V	CHP-V	AV 208	187	


A04

 Manufacturer's mark

QM-System: Certification as per ISO 9001

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

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

 B. BALDAUF
Test House Manager

Inspector's stamp Date 22.09.10 PP 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369817-21.09.10		357359-003		4 / ...	
MATERIAL TEST REPORT (MTR)		A06 Purchaser		B01 Product			
A05 Established inspecting body		EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER			
DH		Final receiver		A07.2 No.			
B02 Steel design		SA516-70					
B03 Any suppl. requirements		ASME-II-A:07+A09 DIL-HOE-2:R30-2010-01-31					

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment.	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 C42 AV=FTLBF	C43 Mean value
01	350405	39715		X1	LV	-51		CHP-V			194	152
02	350405	39714		X1	LV	-51		CHP-V			201	116
04	350403	12280		X1	LV	-51		CHP-V			187	195
05	350402	14890		X1	LV	-51		CHP-V			111	121
05	350403	14124		X1	LV	-51		CHP-V			128	143
06	350402	15168		X1	LV	-51		CHP-V			94	117
07	350404	06356		X1	LV	-51		CHP-V			129	145
08	350041	63959		X1	LV	-51		CHP-V			236	240

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	MB	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		Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01	
QM-System: Certification as per ISO 9001		<i>R. Baldauf</i>		A01			
Manufacturer's mark		B. BALDAUF Test House Manager		Inspector's stamp		Date 22.09.10 PP 1	



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369817-21.09.10	357359-003	5 / ...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body DH	A06 Purchaser Final receiver	B01 Product HOT ROLLED PLATES		
B02 Steel design. SA516-70				
B03 Any suppl. requirements DIL-HUB-2:R30-2010-01-31		EDMONTON STEEL, EDMON A07.1 No. ED10551-J1010-ER EDMONTON STEEL, EDMON A07.2 No. SA20-S5		
C70-C99 Chemical composition % - Heat analysis				
B07.2 Heat	C70	B	CA	AL-T
348840	Y	0,0003	0,0015	0,035
350041	Y	0,0004	0,0015	0,033
350399	Y	0,0002	0,0015	0,035
350402	Y	0,0002	0,0013	0,033
350403	Y	0,0001	0,0014	0,034
350404	Y	0,0003	0,0014	0,033
350405	Y	0,0003	0,0014	0,035
C94 Heat analysis Carbon equivalent / Alloying restrictions				
B07.2 Heat	FO-02=	0,40	FO-51=	0,001
348840	FO-02=	0,38	FO-51=	0,001
350041	FO-02=	0,39	FO-51=	0,001
350399	FO-02=	0,39	FO-51=	0,001
350402	FO-02=	0,38	FO-51=	0,000
350403	FO-02=	0,39	FO-51=	0,001
350404	FO-02=	0,39	FO-51=	0,001
350405	FO-02=	0,39	FO-51=	0,001
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	2011/2002/2003 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.			A01
		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		PP 1
		Inspector's stamp B. BALDAUF Test House Manager		Date 22.09.10



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet	
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		369817-21.09.10		357359-003		6/...	
MATERIAL TEST REPORT (MTR)				B01 Product			
A05 Established inspecting body		A06 Purchaser		A07.1 No.		A07.2 No.	
DH		EDMONTON STEEL, EDMON		ED10551-J1010-ER			
B02/ Steel design		Final receiver		SA20-S5			
B03 Any suppl. requirements		EDMONTON STEEL, EDMON					
DIL-HUE-2:R30-2010-01-31							
				HOT ROLLED PLATES			

C70-C99 Chemical composition % - Product analysis.

C01	B07.2	B07.1	Test No.	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
	Heat	Test No.															
	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	B07.1	C01	B	CA	AL-T
Heat	Test No.				
348840	11315	K1	0,0002	0,0015	0,033
350041	63959	K1	0,0002	0,0016	0,033
350041	63961	K1	0,0003	0,0013	0,033
350399	21322	K1	0,0003	0,0017	0,036
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

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

QM-System: Certification as per ISO 9001



Manufacturer's mark

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



B. BALDAUF
Test House Manager

Inspector's stamp

Date 22.09.10

PP 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)		A10 Advice of dispatch No./ Date of dispatch 369817-21.09.10	A08 Manufacturer's order/ A03 Certificate No. 357359-003	Sheet 7/...
A05 Established inspecting body DH	A06 Purchaser Final receiver	A07.1 No. ED10551-J1010-ER EDMONTON STEEL, EDMON A07.2 No. EDMONTON STEEL, EDMON		
B02 Steel design SAS16-70		SA20-SS		
B03 Any suppl requirements DIL-HUB-2:R30-2010-01-31		ASME-II-A:07+A09		

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			
		K1 FO-02=	0,40	FO-51=	0,001 FO-55=
348840	11315	K1 FO-02=	0,37	FO-51=	0,002 FO-55=
350041	63959	K1 FO-02=	0,37	FO-51=	0,002 FO-55=
350041	63961	K1 FO-02=	0,39	FO-51=	0,000 FO-55=
350399	21322	K1 FO-02=	0,38	FO-51=	0,002 FO-55=
350402	14890	K1 FO-02=	0,38	FO-51=	0,001 FO-55=
350402	15169	K1 FO-02=	0,38	FO-51=	0,001 FO-55=
350403	11979	K1 FO-02=	0,38	FO-51=	0,001 FO-55=
350403	13199	K1 FO-02=	0,37	FO-51=	0,001 FO-55=
350404	11097	K1 FO-02=	0,38	FO-51=	0,001 FO-55=
350404	11955	K1 FO-02=	0,38	FO-51=	0,001 FO-55=
350405	05031	K1 FO-02=	0,38	FO-51=	0,001 FO-55=
350405	05063	K1 FO-02=	0,38	FO-51=	0,000 FO-55=
350405	39946	K1 FO-02=	0,38	FO-51=	0,000 FO-55=
350405	39965	K1 FO-02=	0,38	FO-51=	0,000 FO-55=

A04	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order. QM-System: Certification as per ISO 9001			AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar inspection department	A01
Manufacturer's mark			Inspector's stamp Date 22.09.10	PP	1



DILLINGER HÜTTE

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

A02	INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10	Advice of dispatch No./ Date of dispatch	A03	Manufacturer's order/ Certificate No.	Sheet
	INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+AL:1995 + AS PER ISO 10474:1991			369817-21.09.10		357359-003	8
MATERIAL TEST REPORT (MTR)					B01 Product		
A05 Established inspecting body		A06 Purchaser	EDMONTON STEEL, EDMON		A07.1 No. ED10551-J1010-ER		
DE		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					
C94 Carbon equivalent formula / Alloying restrictions							
FO-02 = C+(MN/6)+(CR+MO+V)/5+(NI+CU)/15							
FO-51 = V +NB							
FO-55 = CU+MO+NI+CR							
FO-78 = CR+MO							
FO-91 = MN/C							
D01 Marking and identification, surface appearance, shape and dimensional properties							
ITEM NO.: 01-08							
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS							
SURFACE AS PER ASME-SA20							
THICKNESS AS PER ASME-SA20							
LENGTH AND WIDTH AS PER ASME-SA20							
FLATNESS AS PER 1/2-ASME-SA20							
							
A04			201/202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department		A01
QM-System: Certification as per ISO 9001				A08B		Date 22.09.10 pp 1	
		B. BALDAUF Test House Manager		Inspector's stamp			



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004

INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474-1:1991

MATERIAL TEST REPORT (MTR)

A05 Established inspecting body A06 Purchaser

DH Final receiver

A07.1 No. ED10557-J1010-ER

EDMONTON STEEL, EDMONTON A07.2 No. EDMONTON STEEL, EDMONTON

SA20-S5

B02 Steel design. SA516-70

B03 Any suppl. ASME-II-A:10

requirements DIL-HUE-2:R31-2010-11-22

A10 Advice of dispatch No./
Date of dispatch

380370-18.02.11

A08/ Manufacturer's order/
A03 Certificate No.

362037-002

Sheet

1/...

B01 Product

HOT ROLLED PLATES



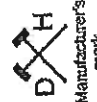
16837

B01-B99 Description of the product

B14- Item No.	B08 Number of pieces	B09 Thickness	B10- Width	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
01	1	0,5000 X	172,00000 X	344,00000 X	3806	N	351665	60830-01	60830-01
01	1	0,5000 X	172,00000 X	344,00000 X	3806	N	351665	60830-02	60830-02
**	2				7612				
02	1	0,6250 X	146,00000 X	438,00000 X	5141	N	354638	93854-01	93854-01
02	1	0,6250 X	146,00000 X	438,00000 X	5141	N	355728	93391-02	93391-02
02	1	0,6250 X	146,00000 X	438,00000 X	5141	N	355728	93391-03	93391-03
**	3				15423				
03	1	0,6250 X	172,00000 X	344,00000 X	4757	N	354638	60834-02	60834-02
05	1	0,8750 X	150,00000 X	450,00000 X	7598	N	355728	93060-01	93060-01
05	1	0,8750 X	150,00000 X	450,00000 X	7598	N	355728	93060-02	93060-02
05	1	0,8750 X	150,00000 X	450,00000 X	7598	N	355728	93060-03	93060-03
**	3				22794				
06	1	0,8750 X	178,00000 X	356,00000 X	7133	N	354638	93547-01	93547-01
06	1	0,8750 X	178,00000 X	356,00000 X	7133	N	354638	93547-02	93547-02
06	1	0,8750 X	178,00000 X	356,00000 X	7133	N	355137	93540-01	93540-01
06	1	0,8750 X	178,00000 X	356,00000 X	7133	N	355137	93540-02	93540-02
06	1	0,8750 X	178,00000 X	356,00000 X	7133	N	355137	93546-01	93546-01
06	1	0,8750 X	178,00000 X	356,00000 X	7133	N	355137	93546-02	93546-02
**	6				42798				
07	1	1,0000 X	150,00000 X	450,00000 X	8683	N	355728	93269-01	93269-01
07	1	1,0000 X	150,00000 X	450,00000 X	8683	N	355730	92491-01	92491-01
07	1	1,0000 X	150,00000 X	450,00000 X	8683	N	355730	92491-02	92491-02
07	1	1,0000 X	150,00000 X	450,00000 X	8683	N	355730	92491-03	92491-03

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

QM-System: Certification as per ISO 9001



Manufacturer's mark



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		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1.1.995 + AS PER ISO 10474:1991		380370-18.02.11	362037-002	2/...
MATERIAL TEST REPORT (MTR)		B01 Product		
A05 Established inspecting body		HOT ROLLED PLATES		
DE				
A06 Purchaser				
Final receiver				
EDMONTON STEEL, EDMON		A07.1 No. ED10557-J1010-ER		
EDMONTON STEEL, EDMON		A07.2 No.		
SA20-S5				
B02 Steel design.				
SA516-70				
B03 Any suppl.				
ASME-II-A:10				
requirements				
DIL-HUE-2:R31-2010-11-22				

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width	B11 Length	B12 Theoretical mass	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchase article number
07	1	1,0000 x	150,00000 x	450,00000 x	8683 N		355730	92508-01	
**	5				43415				
08	1	1,0000 x	178,00000 x	356,00000 x	8152 N		355134	93530-01	
08	1	1,0000 x	178,00000 x	356,00000 x	8152 N		355137	93528-01	
08	1	1,0000 x	178,00000 x	356,00000 x	8152 N		355137	93529-01	
**	3				24456				
10	1	1,1250 x	121,00000 x	480,00000 x	8405 N		355730	92371-01	
10	1	1,1250 x	121,00000 x	480,00000 x	8405 N		355730	92371-02	
10	1	1,1250 x	121,00000 x	480,00000 x	8405 N		355730	92483-02	
10	1	1,1250 x	121,00000 x	480,00000 x	8405 N		355732	92290-01	
**	4				33620				
***	27				194875				

B04 Product delivery condition

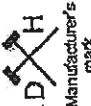
ITEM NO.: 01-10
N: HT: 1670 GR.F +36 -27 GR.F
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

B06 Marking of the product

ITEM NO.: 01-10
STEEL DESIGNATION SA516 70 MTLV SA516 60 MTLV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

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

QM-System: Certification as per ISO 9001



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

B. BALDAUF
Test House Manager

Inspector's stamp

Date 18.02.11

PP 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08 Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11	362037-002	3/...
MATERIAL TEST REPORT (MTR)		B01 Product HOT ROLLED PLATES		
A05 Established inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMON	A07.1 No. ED10557-J1010-ER		
	Final receiver EDMONTON STEEL, EDMON	A07.2 No.		
SA20-S5				
B02/ Steel design. SA516-70				
B03 Any suppl. requirements	ASME-II-A:10 DIL-HUE-2-R31-2010-11-22			

B07-B99 Further information about the product

ITEM NO.: 01-I0
THICKNESS REDUCTION RATIO >= 3,0 IS FULFILLED (CF. A/SA20 PAR. 5.3)

C10-C29 Tensile test

B14 B07.2 Item Heat No. No.	B07.1 Rolled/ Test No.	Reference (heat) treatment	C01 C01	C02/ C01	C03 Temp. GRF	C10 KSI RP02	C11 KSI RP02	C12 RM	C13	A % LO-BIN	C14-C15
01 351665 60830			K1 Q	RT	RT	53,2		76,9		25	
02 354638 93854			K1 Q	RT	RT	50,6		76,7		26	
02 355728 93391			K1 Q	RT	RT	52,5		76,9		25	
03 354638 60834			K1 Q	RT	RT	51,5		76,4		25	
05 355728 93060			K1 Q	RT	RT	49,7		75,3		27	
06 354638 93547			K1 Q	RT	RT	50,9		75,3		26	
06 355137 93540			K1 Q	RT	RT	48,9		74,4		30	
06 355137 93546			K1 Q	RT	RT	49,9		74,8		29	
07 355728 93269			K1 Q	RT	RT	51,0		75,4		29	
07 355730 92491			K1 Q	RT	RT	49,9		74,7		29	
07 355730 92508			K1 Q	RT	RT	49,3		74,1		29	
08 356134 93530			K1 Q	RT	RT	48,1		73,1		33	
08 355137 93528			K1 Q	RT	RT	49,2		74,2		28	
08 355137 93529			K1 Q	RT	RT	49,9		73,8		28	
10 355730 92371			K1 Q	RT	RT	49,7		74,7		29	
10 355730 92483			K1 Q	RT	RT	50,0		74,2		33	
10 355732 92290			K1 Q	RT	RT	50,0		74,2		29	

A04	Z01/Z02/Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		A01
	QM-System: Certification as per ISO 9001		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar Inspection department
Manufacturer's mark	B. BALDAUF Test House Manager	Inspector's stamp	Date 18.02.11 PP 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08 Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11		362037-002		4/...
MATERIAL TEST REPORT (MTR)				B01 Product		
A05 Established inspecting body		A06 Purchaser		A07.1 No.		
DE		EDMONTON STEEL, EDMON		ED10557-J1010-ER		
B02 Steel design.		SA516-70		A07.2 No.		
B03 Any suppl. requirements		ASME-II-A:10		SA20-S5		
		DIL-HUE-2:R31-2010-11-22		EDMONTON STEEL, EDMON		
		Final receiver				
				HOT ROLLED PLATES		

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35 C31 Individual values	C32 Mean value
01	351665	60830		X1	O	RT	HBW 10/3000	HB 150 152	151
02	354638	93854		X1	O	RT	HBW 10/3000	HB 150 150	149
02	355728	93391		X1	O	RT	HBW 10/3000	HB 152 151	148
03	354638	60834		X1	O	RT	HBW 10/3000	HB 145 150	148
05	355728	93060		X1	O	RT	HBW 10/3000	HB 148 149	148
06	354638	93547		X1	O	RT	HBW 10/3000	HB 148 147	148
06	355137	93540		X1	O	RT	HBW 10/3000	HB 150 151	150
06	355137	93546		X1	O	RT	HBW 10/3000	HB 151 152	151
07	355728	93269		X1	O	RT	HBW 10/3000	HB 149 148	148
07	355730	92491		X1	O	RT	HBW 10/3000	HB 144 143	144
07	355730	92508		X1	O	RT	HBW 10/3000	HB 148 149	148
08	355134	93530		X1	O	RT	HBW 10/3000	HB 145 146	145
08	355137	93528		X1	O	RT	HBW 10/3000	HB 148 148	148
08	355137	93529		X1	O	RT	HBW 10/3000	HB 147 146	146
10	355730	92371		X1	O	RT	HBW 10/3000	HB 145 145	145
10	355730	92483		X1	O	RT	HBW 10/3000	HB 145 146	146
10	355732	92290		X1	O	RT	HBW 10/3000	HB 145 145	145

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Roll plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C41 Width test piece	C40 Type of test piece	C44 Testing method	C48 Energy	C45 C42 Individual values AV=FTLBF	C43 Mean value
01	351665	60830		X1	IV	-51	51	CHP-V	CHP-V	AV 185	74 147	135
02	354638	93854		X1	IV	-51	51	CHP-V	CHP-V	AV 97	135 117	116
02	355728	93391		X1	IV	-51	51	CHP-V	CHP-V	AV 140	180 181	167
03	354638	60834		X1	IV	-51	51	CHP-V	CHP-V	AV 142	136 130	136

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

QM-System: Certification as per ISO 9001



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

B. BALDAUF
Test House Manager

Inspector's stamp Date 18.02.11

PP 1



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11	362037-002	5/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	B01 Product		
DH	Final receiver	HOT ROLLED PLATES		
B02 Steel design. SA516-70				
B03 Any suppl. ASME-II-A:10				
requirements DIL-HUE-2:R31-2010-11-22				
		SA20-S5		

C40-C49 Impact test

B14 Item	B07.2 Heat No.	B07.1 Rol. plate/ Test No.	B05 Reference (heat) treatment	C01 KV	C02 C01	C03 Temp. GRF	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45 C42 Individual values AV-FTLBF	C43 Mean value
05	355728	93060		K1	LV	-51	-51	CHP-V			AV 114	124
06	354638	93547		K1	LV	-51	-51	CHP-V			AV 104	116
06	355137	93540		K1	LV	-51	-51	CHP-V			AV 213	139
06	355137	93546		K1	LV	-51	-51	CHP-V			AV 122	127
07	355728	93269		K1	LV	-51	-51	CHP-V			AV 142	155
07	355730	92491		K1	LV	-51	-51	CHP-V			AV 156	84
07	355730	92508		K1	LV	-51	-51	CHP-V			AV 114	123
08	355134	93530		K1	LV	-51	-51	CHP-V			AV 115	194
08	355137	93528		K1	LV	-51	-51	CHP-V			AV 94	226
08	355137	93529		K1	LV	-51	-51	CHP-V			AV 118	125
10	355730	92371		K1	LV	-51	-51	CHP-V			AV 103	122
10	355730	92483		K1	LV	-51	-51	CHP-V			AV 100	106
10	355732	92290		K1	LV	-51	-51	CHP-V			AV 127	116

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	Si	Mn	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
351655	Y	0,180	0,375	1,17	0,012	0,0009	0,0067	0,045	0,010	0,041	0,036	0,000	0,000	0,002	0,002
354638	Y	0,171	0,372	1,19	0,009	0,0012	0,0070	0,030	0,012	0,030	0,037	0,000	0,000	0,001	0,002
355134	Y	0,171	0,383	1,16	0,007	0,0005	0,0066	0,021	0,014	0,025	0,020	0,000	0,000	0,001	0,003
355137	Y	0,179	0,387	1,18	0,008	0,0005	0,0066	0,039	0,009	0,050	0,023	0,000	0,000	0,001	0,002
355728	Y	0,175	0,372	1,18	0,009	0,0013	0,0070	0,036	0,021	0,059	0,045	0,000	0,000	0,002	0,003
355730	Y	0,178	0,372	1,17	0,008	0,0010	0,0069	0,034	0,010	0,033	0,042	0,000	0,000	0,002	0,003
355732	Y	0,181	0,357	1,16	0,007	0,0011	0,0076	0,039	0,010	0,040	0,039	0,000	0,000	0,003	0,002

A04	2012/02/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1588, D-66748 Dillingen/Saar Inspection department	AG der Dillinger Hüttenwerke Postfach 1588, D-66748 Dillingen/Saar Inspection department	PP
QM-System: Certification as per ISO 9001		B. BALDAUF Test House Manager		Date 18.02.11
Manufacturer's mark		Inspector's stamp		PP



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A03 Manufacturer's order/ Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11	362037-002	6/...
MATERIAL TEST REPORT (MTR)				
A05 Established inspecting body	A06 Purchaser	A07.1 No. ED10557-J1010-ER		
DE	Final receiver	A07.2 No.		
B02/ Sheet design.	SA516-70	SA20-S5		
B03 Any suppl.	ASME-II-A:10			
requirements	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	FO-02=	FO-51=	FO-55=	FO-78=	FO-91=
351665	0,39	0,000	0,13	0,05	6,5
354638	0,38	0,000	0,11	0,05	7,0
355134	0,37	0,000	0,08	0,03	6,8
355137	0,39	0,000	0,12	0,03	6,6
355728	0,39	0,000	0,16	0,07	6,7
355730	0,39	0,000	0,12	0,05	6,6
355732	0,39	0,000	0,13	0,05	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
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A04	2012/02/03 We hereby certify that the above mentioned materials have been delivered in accordance with the terms of order.	AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar inspection department	A01
QM-System: Certification as per ISO 9001		Inspector's stamp Date 18.02.11	PP 1
Manufacturer's mark			



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch		A08/ Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11		362037-002		7/...
MATERIAL TEST REPORT (MTR)		A07.1 No. ED10557-J1010-ER		B01 Product		
A05 Established inspecting body		EDMONTON STEEL, EDMON		HOT ROLLED PLATES		
DE		Final receiver				
B02/ Steel design. SA516-70		EDMONTON STEEL, EDMON				
B03 Any suppl. ASME-II-A:10		EDMONTON STEEL, EDMON				
requirements DIL-HUE-2:R31-2010-11-22						
		SA20-S5				

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	MS	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	0,021	0,060	0,046	0,000	0,000	0,001	0,003
355728	93554	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		Z010202/203 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.		A01	
		QM-System: Certification as per ISO 9001		AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillingen/Saar inspection department	
Manufacturer's mark		Inspector's stamp B. BALDAUF Test House Manager		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		A08 Manufacturer's order/ A03 Certificate No.		Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		A10 Advice of dispatch No./ Date of dispatch		8/...
MATERIAL TEST REPORT (MTR)		380370-18.02.11		
A05 Established inspecting body		B01 Product		
DH		HOT ROLLED PLATES		
A06 Purchaser		A07.1 No. ED10557-J1010-ER		
Final receiver		EDMONTON STEEL, EDMON		
A07.2 No.		EDMONTON STEEL, EDMON		
SA20-S5				
B02 Steel design. SA516-70				
B03 Any suppl. ASME-II-A:1.0				
requirements DIL-HUE-2:R31-2010-11-22				

C70-C99 Chemical composition % - Product analysis

B07.2	B07.1	CM	B	CA	AL-T
Heat	Test No.				
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	B07.1	CM	FO-02=	FO-51=	FO-55=
Heat	Test No.				
351665	60825	K1	0,39	0,000	0,13
354638	54388	K1	0,37	0,000	0,10
354638	93547	K1	0,39	0,002	0,12
354638	93854	K1	0,40	0,004	0,14
355134	93530	K1	0,37	0,000	0,08
355137	93529	K1	0,38	0,001	0,13
355137	93546	K1	0,39	0,001	0,13
355728	93060	K1	0,39	0,000	0,16
355728	93269	K1	0,40	0,000	0,16
355728	93391	K1	0,39	0,000	0,16
355728	93534	K1	0,39	0,000	0,16
355730	92483	K1	0,38	0,000	0,12
355730	92486	K1	0,38	0,000	0,12
355730	92508	K1	0,38	0,000	0,15
355732	92290	K1	0,38	0,000	0,12

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

QM-System: Certification as per ISO 9001



Manufacturer's mark

B. Baldauf

Test House Manager



Inspector's stamp

Date 18.02.11

PP 1

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



DILLINGER HÜTTE

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

A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004		A10 Advice of dispatch No./ Date of dispatch	A03 Manufacturer's order/ Certificate No.	Sheet
INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991		380370-18.02.11	362037-002	9
MATERIAL TEST REPORT (MTR)		B01 Product		
A05 Established inspecting body		HOT ROLLED PLATES		
DH	A05 Purchaser	EDMONTON STEEL, EDMONT		
	Final receiver	EDMONTON STEEL, EDMONT		
B02 Steel design		SA516-70		
B03 Any suppl.		ASME-II-A:10		
requirements		DIL-HUE-2:R31-2010-11-22		
SA20-SS				
C94 Carbon equivalent formula / Alloying restrictions				
FO-02 = $C + (Mn/S) + (Cr+Mo+V) / 5 + (Ni+Cu) / 15$				
FO-51 = V + Nb				
FO-55 = Cu+Mo+Ni+Cr				
FO-78 = Cr+Mo				
FO-91 = Mn/C				
D01 Marking and identification, surface appearance, shape and dimensional properties				
ITEM NO.: 01-10				
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS				
SURFACE AS PER ASME-SA20				
THICKNESS AS PER ASME-SA20				
LENGTH AND WIDTH AS PER ASME-SA20				
FLATNESS AS PER 1/2-ASME-SA20				
A04				
Z01Z02Z03 We hereby certify, that the above mentioned materials have been delivered in accordance with the terms of order.				
QM-System: Certification as per ISO 9001				
AG der Dillinger Hüttenwerke Postfach 1580, D-66748 Dillinger/Saar inspection department				
Inspector's stamp				
Date 18.02.11				
PP 1				



B. Baldauf

B. BALDAUF
Test House Manager

AHB



SHIPPER : HANWA CO., LTD.
REFERENCE No. : 228-38501090
CONTRACT No. : 1-831-HI-5-4-A101
COMMOITY : HOT ROLLED STEEL PLATES
SPECIFICATION : ASME SA-516 GRADE 70-E10
DOCUMENT No. :

新日本製鐵株式會社
Nippon Steel Corporation
鋼材検査証明書
INSPECTION CERTIFICATE

社 : 〒100-8071 東京都千代田区丸の内二丁目6番6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
KOMITSU WORKS : 1, KIMITSU-KIMITSU-CITY, CHIBA-PREF, 299-1141 JAPAN
監明家番号 : P-13163 PAGE : 60
CERTIFICATE No. :
発行年月日 : 2011-04-06
DATE OF ISSUE : 1001
2***CEW***
E3001P0701 E07

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)
需要家管理番号 :
CUSTOMER : EDWORTH EXCHANGER GROUP OF C-
COMPANIES : CUSTOMERS CONTROL NO.

DOCUMENT NO.	寸 法 DIMENSION mm, 'inch, 'feet	数量 QUAN- TITY	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				衝 撃 試 験 IMPACT TEST				化 学 成 分 CHEMICAL COMPOSITION %												HBW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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本社 〒180-8071 東京都千代田区丸の内二丁目6番1号
 社 〒2-6-1, MAKINOUCHI, CHITODA-YU, TOKYO 100-8071, JAPAN
 HEAD OFFICE
 名津製鐵所 〒299-1141 千葉県君津市君津1番地
 KIMITSU WORKS 〒1-KIMITSU, KIMITSU-CITY, CHIBA-PREF. 299-1141 JAPAN

鋼材検査証明書
INSPECTION CERTIFICATE

證明書號碼 : P-13163 頁 : 08
 發行年月日 : 2011-04-06
 DATE OF ISSUE : 1001 2*DM*****

DATE OF ISSUE : 2011-04-06
1001
2*DDMM####
*****CERN**
E3001P07Q1 E07

文書番号 :
DOCUMENT No.

製造元 :
COMPANIES

品名

質量

郵便番号
CAST No.

製品番号
PLATE No.

試験番号
TEST No.

試験値
KSI

引張強さ
T.S.

伸び
EL

試験位置
LOCATION

試験温度
TEMP

寸法
DIMENSION

mm, 'inch, 'feet

化学成分
CHEMICAL COMPOSITION %

C

Si

Mn

P

S

Al

Fe

CA

B

TI

Mo

NI

Cu

Cr

Nb

V

TAI

衝撃試験
IMPACT TEST

2V - 50F

EL

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[illegible]

上記文品は標榜規定の規則を遵守して製造され、その製造過程を規定していることを証明します。

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

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

卷之四



PURCHASE ORDER #

2884


DATE	June 11, 2012
VENDOR	V.E.G. Oilfield Supply
CONTACT	ALL
DATE REQUIRED	16" 3 Phase Separator
JOB NUMBERS	

4901 Bruce Road Vegreville, Alberta T9C 1C3

Phone: (780) 632-7774

[illegible]

1. The above items are to be formed to meet the requirements of ASME Section VII, Div. 1 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.





PRESSURE TEST RECORD

Date:

Dec 18, 2012

Vessel Serial Number:

12616

Vessel Design Pressure:

1480 Psi.

Hydro Test Pressure:

2220 Psi.

Temperature:

+18

Test Gauge No.:

43 # 38

Hydro By:

WPS

Q.C. Signature:

WJ

Print Clearly

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

100



GAS FIELD SERVICES

MATERIAL INSPECTION REPORT

12616

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	6601454		21.82/22.50/22.07	✓	Y	
SA-516-70	0.875	G4225-275240720	0.8125	21.30/21.28/23.81	✓	Y	
SA-516-70	0.875	344657-76977	0.8125	21.33/21.22/24.22	✓	Y	

Heads 24" & Smaller 0° - 90°			PLATE & REPADS

REMARKS:

25



Vessel Name Plate Travel Sheet

Vessel Serial Number:

12616

Vessel Name:

Vertical 3 Phase Separator

Vessel DWG #:

V01-381-R1

Vessel C.R.N. #

P7217.231

Vessel Design Pressure:

1480 Psi.

Hydro Pressure:

2220 Psi.

Plate Originator:

Wes

Date:

June 11, 2012

Engraved By:

OK

Date:

June 13, 12

Picked Up By:

Date:

Print Clearly

Original to be returned to Q.C.

W

RT - 2

Certified By

RJV

**GAS FIELD
SERVICES**

Vegreville, Alberta
Phone (780)632-7774

A#623763

UNIT NAME

Vertical 3 Phase Separator

M.A.W.P. Internal		AT	DESIGN TEMP.		M.A.W.P. External	
10204	Kpa.	@	38	°C		Kpa.
1480	Psi.	@	100	°F		p.s.i.
MINIMUM DESIGN METAL TEMPERATURE				YEAR BUILT		
-29	°C	@	10205	Kpa.	2012	
-20	°F	@	1480	p.s.i.		
C.R. NUMBER				SERIAL NO.		

P7217.231

12616

CORR. ALLOW.	HEAT TREATMENT	HYDRO TEST
1.6 mm	Nil	15307 Kpa.
SHELL THICK.	HEAD THICK.	2220 p.s.i.
21.44 mm	Top - 20.63 mm	WEIGHT
SHELL MAT'L	Bottom - 20.63 mm	685 Kg.
SA-106-B	HEAD MAT'L	SIZE
	Top- SA-516-70	406 X 2285
	Bottom- SA-516-70	

A# 193103



ISO 9001:2000

RADIOGRAPHIC TESTING REPORT

R-241265

ACUREN

CLIENT

ATTENTION

ADDRESS

PROJECT

WORK LOCATION

R3V

Dave

Vessel-Spot
Vegreville

DATE

ACUREN JOB #

POWO #

PROCEDURE #

ACCEPTANCE

STANDARD

Aug 7/12

231-63913-84

Serial # 12616

A6I RT-01

ASME SEC VIII

DIV I UG-52

MATERIAL TYPE

FILM BRAND

RADIATION SOURCE

2010 FOCAL SPOT

PAGE

OF

1

P1
Agfa☒ IR 192 ☐ Co 60 ☐ X-RAY

KV

74 (C) MM IN

Legend 1. Accept 2. Moderate 3. Reject *Welder Symbol

	IDENTIFICATION	PIPE DIA.	PIPE SCH	FILM TYPE	REIN.	TECH #	SOD (D)	OFD (I)	# OF EXP	C R K	L F P	I P S	U C R	E P	*	DEFECT LOCATION & REMARKS	ACC	REJ
1	SPI 0-6	16"	80	DS	125"	2	8"	.844"	1							m4x		✓
2																		
3																		
4																		
5																		
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7																		
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SIGNATURES

CLIENT REPRESENTATIVE

TECHNICIAN (SIGN)

PRINT NAME:

*Please note: Film that is not accepted by the client when the report is issued will be disposed of by Acuren unless otherwise notified and acknowledged in writing.

PRINT

B.Osmo
Brad Osmono1ST TECHNICIAN

CGSB LEVEL II

CGSB REGISTRATION # 3161

SIGNATURE

M. Lederer

2ND TECHNICIAN/ASSISTANT

CGSB LEVEL

CGSB REGISTRATION #

FILM USED

1

FILM SIZE

4 1/2 x 8 1/2

DTR #

PCS

PCS

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PCS

REFER TO OPPOSITE SIDE FOR SCOPE OF SERVICES AND STANDARD OF CARE

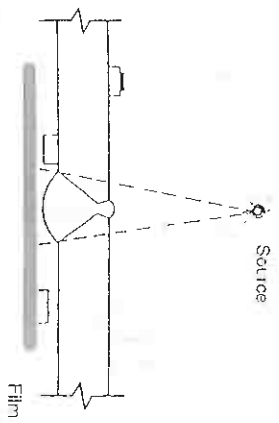
Z376718

White - Client Copy

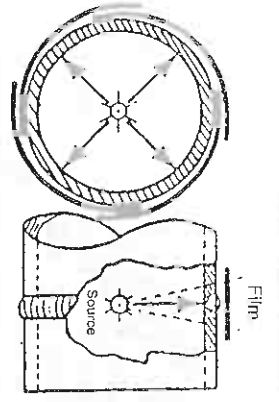
Canary - Office Copy

Pink - Technician Copy

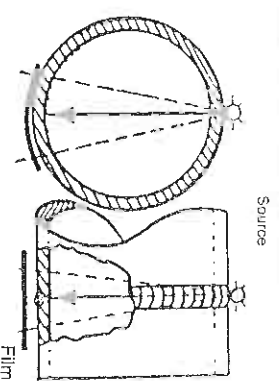
Golden Rod - Office Copy



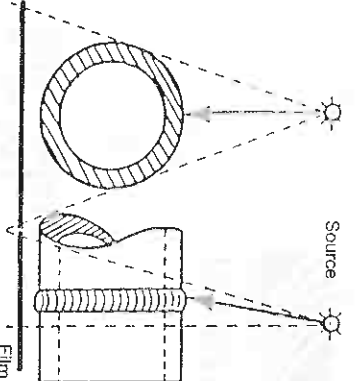
Technique "1"
SWE-SWV



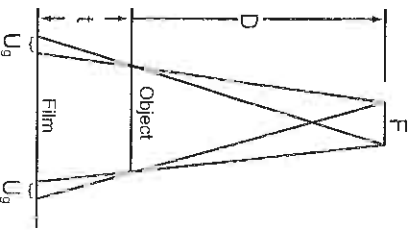
Technique "2"
SWE-SWV



Technique "3"
DWE-SWV



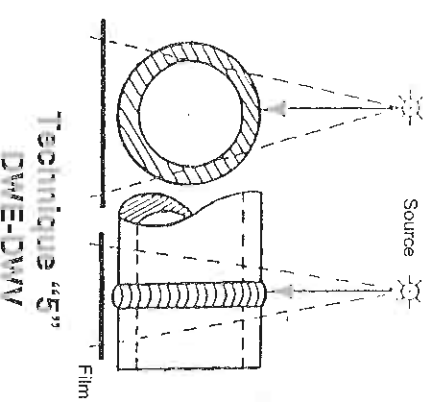
Technique "4"
DWE-DWV



U_g = Geometric Unsharpness
 D = source to object distance
 t = object to film distance
 F = Focal Spot Size
 $U_g = Ft/D$

Note: If t is omitted from this report, the Pipe Schedule shall apply as t.

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

DISCLAIMERS

SCOPE OF SERVICES
 The agreement of Acuren to perform services extends only to those services specifically provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested inspection of specific equipment provided for in writing and the preparation of reports or similar documents. Any descriptions, statements, comments or expressions made reflect the opinion or observations of the Acuren examiner based solely upon data available at the time, 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 all engineering, repair and use decisions.

STANDARD OF CARE

In performing the services provided, Acuren shall use the degree of care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. **No other warranty, expressed or implied, is made or intended by Acuren, and all other warranties are expressly disclaimed.** In the event of any breach of this warranty, Acuren's sole and exclusive obligation will be to correct or re-perform the deficient service or, at Acuren's option, to refund the amount paid for the deficient service.

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 and only to the extent those directly caused by the willful or negligent misconduct of Acuren in the context of performing the requested services. In no event shall Acuren's aggregate liability for any reason, in connection with any claim asserted, exceed the amount paid for the services in question. Acuren shall not be held responsible or liable for any loss, damage or delay caused by accidents, strikes, fires, floods, or other circumstances or causes beyond Acuren's control, including actions taken or not taken by the owner/operator or other third parties. In no event shall Acuren be liable for indirect, incidental, special, punitive, or consequential damages including, without limitation, damages relating to reputation, lost profits, goodwill, downtime, loss of use, business interruption or other economic loss.

623763

ALBERTA MUNICIPAL AFFAIRS

ABSA, the pressure equipment safety authority
9410 - 20th Avenue
Edmonton, AB T6N 0A4
Partial/ Partiel ☐

MANUFACTURER'S DATA REPORT

FOR PRESSURE VESSEL

DÉCLARATION DE CONFORMITÉ DU CONSTRUCTEUR

D'APPAREILS SOUS PRESSION

Upon shipment of a pressure vessel, this form fully and correctly filled in must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under the Act, governing the construction and installation of pressure vessels.

Au moment de l'expédition d'un appareil sous pression, ce formulaire complété correctement, doit être envoyé au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

Manufactured by Construit par	Name and address of Manufacturer/ Nom et adresse du constructeur RJV Gasfield Services 4901 Bruce Road, Vegreville, Alberta T9C 1C3
Manufactured for Construit pour	Name and address of Purchaser or Consignee/ Nom et adresse du client ou de son représentant RJV Gasfield Services 4901 Bruce Road, Vegreville, Alberta T9C 1C3
Ultimate owner Utilisateur	Name and address/ Nom et adresse Stock
Location of installation Lieu d'installation	Address/ Adresse Stock

Pressure vessel/ Appareil

Type/ Genre Vertical 3 Phase Separator	Overall Length/Longueur totale 2285mm sm/sm	Serial No./ N° de série 12616	Year built/Année de fabrication 2012
Provincial Registration No. - C.R.N./N° d'enregistrement provincial - N.E.C. P7217.231	National Board No./ N° National Board N/A		Drawing No./ N° de dessin V01-381-R1

The chemical and physical properties of all parts meet the requirements of material specifications of the A.S.M.E. Code.

Les propriétés chimiques et physiques de toutes les composantes respectent les exigences des spécifications de matériaux de code ASME.

The design, construction and workmanship conform to CSA B51. La conception, la construction et la façon sont conformes à ACNOR B51.	ASME Section VIII	Division 1	Addenda/Supplément 2011a	Code case No. N° de cas N/A
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Manufacturer's partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report:

Les rapports partiels du constructeur adéquatement identifiés et signés par les inspecteurs autorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport:

Names of parts/ Nom de la composante	Item No./ N° d'item	Manufacturer's Name/ Nom du constructeur	Identifying Stamp/ Estampe d'identification

Shell/ Virole

Description	Material Matériau	Thickness Épaisseur	Corr. Allow. Surépais. de corr.	Diameter Diamètre	Longitudinal Joints Joints longitudinaux			P.W.H.T. Traitement therm		Girth Joints Joints de circonférence		Number of courses Nombre de sections
					Type	R.T. Radiog.	Efficiency Efficacité	Temp.	Time Durée	Type	R.T. Radiog.	
Shell	SA-106-B	21.44 mm	1.6mm	406mm	Sm's	N/A	100%	N/A	N/A	1	Spot	1
											70%	

Heads/ Tetes

Description	Material Matériau	Min. Thickn. Épais min.	Corr. Allow Surép. Corr.	Crown. Radius Rayon couron.	Knuckle Radius Petit rayon	Ellipse Ratio Rapp. ellipse	Conical Apex Angle Angle conique	Hemisph. Radius Ray. Hémisph	Flat Diameter Diam.plat	Side to pressure Côté sous pression
Top	SA-516-70	20.63mm	1.6mm	-----	-----	2.1	-----	-----	-----	Concave
Bottom	SA-516-70	20.63mm	1.6mm	-----	-----	2.1	-----	-----	-----	Concave
Removable bolts used (describe other fastenings) Boulons amovible utilisés (décrire tout autre attache)					Mat'l Spec./ Spéc. du mat.			Grade		Size/ Dimension

Pressure - Temperature/ Pression - température

Pressure Vessel Part Partie de l'appareil	Constructed for max. allowable working pressure Construit pour une pression maximale de marche permise	At max. temp. A une temp. max.	Min. Temp. (when less than -29°C) Temp. min. (inférieure à -29°C)	Test pressure (hydro-pneumatic or combination) Pression d'épreuve (hydro-pneumatique ou combinaison)
Vessel	10,205 Kpa.	38°C	-29°C	15,307 Kpa.

Tube Section/ Faisceau tubulaire

Tubesheet/ Plaque tubulaire	Material/ Matériau	Diameter/ Diamètre	Nominal Thickness Épaisseur nominale	Corr. Allow. Surépais. corrosion	Attachment Mode d'attachement
Tube material/ Matériau des tubes	Diameter/ Diamètre	Nominal Thickness (gauge) Épaisseur nominale (calibre)	Number/ Nbre	Type (Straight or U) Type (Droit ou U)	Heating Surface Surface de chauffe

Jacket/ Chemise

Type of jacket/ Genre de chemise	Jacket closure Fermeture de chemise	Proof Test Pression d'épreuve	Heating Surface Surface de chauffe	Sketch/ Schéma
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Safety Valve Outlets/ Soupapes de sûreté

Number/ Nombre 1	Dimension 33.4mm	Location/ Endroit Shell
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Nozzles and Openings/ Tubulures et ouvertures

Purpose/ But	Number Nombre	Dimension	Type	Material Matériau	Nominal Thickness Épaisseur nominale	Reinforcement 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	CL600RFWN	SA-105/SA-106-B	8.74mm	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 <input checked="" type="checkbox"/> No/ Non <input type="checkbox"/>	Lugs/ Oeilles No./ Nbre No	Legs/ Pieds No./ Nbre No	Other/ Autres (Description) N/A	Attached/ Attaches (Where and How/ Méthode et endroit) Welded to bottom head
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Remarks/ Observations (Cubical capacity/ Volume)

Volume=.262 Cubic Meters
Exempt from impact test requirements as per UG20(f) 1 to 5
Hydrostatically tested in the vertical position
Nozzle to shell weld full penetration

Certificate of Compliance/ Certificat de conformité

We certify that the statements made in this data report are correct and that the said vessel has been constructed in accordance with the Provincial Registered design below and the requirements of standard CSA B51.

Nous certifions que les données de la déclaration de conformité sont correctes et que l'appareil a été construit en accord avec l'enregistrement provincial ci-dessous et les exigences de la norme ACNOR B51.

Provincial Registered Design
Enregistrement provincial P7217.231

Manufacturer
Constructeur RJV Gasfield Services

Signature [Signature] Date DEC 18 2012

Certificate of Shop Inspection/ Certificat d'inspection en usine

I, the undersigned, a duly authorized boiler and pressure vessel inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by (employé par) ABSA
of (de) Alberta

have inspected the above vessel and state that to the best of my knowledge and belief the manufacturer has constructed the vessel in accordance with Canadian Registration No. P7217.231 and the requirements of CSA Standard B51. By signing this certificate, neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the vessel described in this manufacturer's data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

ai inspecté l'appareil précité et, autant que je sache, le constructeur a construit l'appareil en accord avec le numéro d'enregistrement canadien P7217.231 et les exigences de la norme CSA B51. En signant ce certificat, ni l'inspecteur ni son employeur ne donnent de garantie explicite ou implicite relativement à l'appareil décrit dans la présente déclaration. De plus, ni l'inspecteur ni son employeur ne doivent être tenus responsables de quelque manière que ce soit des dommages, matériels ou corporels, ou des pertes de quelque nature que ce soit pouvant résulter de cette inspection.

Inspector's Name
Nom de l'inspecteur ERNIE PLESAB AB 277 NB 13249 A
Signature [Signature] Date DEC 18 2012

Certificate of Compliance - Field Work/ Certificat de conformité - Installation au chantier

We certify that the field installation of all parts of the vessel conforms with the requirements of Provincial Regulations.

Nous certifions que l'installation au chantier de toutes les composantes de l'appareil est conforme aux règlements provinciaux.

Installer's Name
Nom de l'installateur _____

Signature _____

Date _____

Certificate of Field Inspection/ Certificat d'inspection - Installation au chantier

I, the undersigned, a duly authorized boiler and pressure vessel inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by (employé par) ABSA

have inspected the items not covered by the Certificate of Shop Inspection and the installation of the items and state that to the best of my knowledge and belief the construction and assembly of the items are in accordance with the provincial regulations. By signing this certificate, neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the vessel described in this manufacturer's data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

ai inspecté les composantes non couvertes par le certificat d'inspection en usine et l'installation de l'appareil et, autant que je sache, la construction et l'assemblage de l'appareil sont en accord avec les règlements provinciaux. En signant ce certificat, ni l'inspecteur ni son employeur ne donnent de garantie explicite ou implicite relativement à l'appareil décrit dans la présente déclaration. De plus, ni l'inspecteur ni son employeur ne doivent être tenus responsables de quelque manière que ce soit des dommages, matériels ou corporels, ou des pertes de quelque nature que ce soit pouvant résulter de cette inspection.

Inspector's Name
Nom de l'inspecteur _____
Signature _____ Date _____