Travel Sheet

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

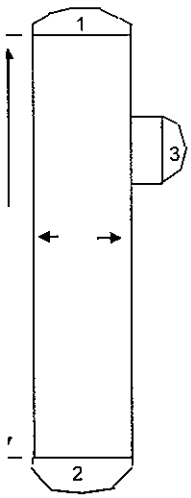
"A"-Hold Point, "I"- Inspection Point, "R"-Revision, "W"- Witness Point

Hold Points established - Sign & Date May 19/11 (Authorized Inspector)

Vessel Serial # **12135** DWG # **V05-413** (A) # 6007661

Vessel Title: **24" 3Phase Separator** CRN # **T5394.231**

ITEM		COMMENTS	AUTH Insp.,Hold Rev.,Witness POINTS	DATE FUNCTION COMPLETE & INSPECTORS INITIALS: QC INSPECTOR	AUTHORIZED INSPECTOR
APPROVED DRAWING			X	May 12,2011	June 14/11
CALCULATIONS ON FILE			X	May 12,2011	June 14/11
MATERIAL CHECKED AGAINST DRAWING,MATERIAL LIST				May 12,2011	
MTR'S CHECKED			X	May 12,2011	June 14/11
VESSEL LAYOUT				May 13,2011	
NOZZLES	ORIENTATION			May 13,2011	
& FITTINGS	RATINGS		X	May 13,2011	June 14/11
FIT	NOZZLES&FITTINGS			May 16,2011	
UP	SHELL & HEAD			MAY 20 2011	
INTERNALS (tray,baffles,etc)				May 19,2011	
INTERNAL INSPECTION			H	May 19,2011	May 19/11
WELD SIZES			X	JUN 07 2011	June 14/11
WELDERS I.D.				JUN 07 2011	
EXTERNAL AFTER COMPLETION OF ALL WELDING				JUN 07 2011	
RADIOGRAPHS			X	JUN 09 2011	June 14/11
OTHER N.D.E.					
IMPACT TESTS					
POST WELD HEAT TREATMENT		YES: NO: √			
EXTERNAL BEFORE PWHT					
PWHT CHART CHECKED					
NAMEPLATE			X	JUN 14 2011	June 14/11
HYDROSTATIC TEST			H	JUN 14 2011	June 14/11
DATA REPORT			X	JUN 14 2011	June 14/11
NONCONFORMANCES					



		SPECIFICATIONS	HEAT NUMBER	VERIFIED THICKNESS
SHELL	C1	SA-516-70	**350404-07813**	25.4mm
	C2			
HEADS	1	SA-516-70	**G7547-879270469**	23.8mm
	2	SA-516-70	**G4793-879270310**	23.8mm
	3			
REPADS	1	Shell 4" SA-516-70	**9580K**	9.5mm
	2	Head 4" SA-516-70	**344650-33444**	6mm
	3	Shell 3" SA-516-70	**9580K**	9.5mm
	4			

	SPECIFICATIONS	SIZE	SCHEDULE
NOZZLES	SA-106-B	4",3",2",	Sch XXH
FITTINGS	SA-105	1/2", 3/4"	CL6000
TUBES			

ESSAR Steel Algoma Inc. 105 West Street, Sault Ste. Marie, Ontario Canada P6A 7B4

62A004607

CUSTOMER PURCHASE ORDER NUMBER	ENTRY DATE	SHIP DATE	TALLY NUMBER	SHIPPER'S NO.	CARRIER	MILL ORDER
M62006006	2010/10/04	2010/11/30	204342	-	CN -622361	68012

CHARGE TO CUSTOMER NAME AND ADDRESS

RUSSEL METALS INC.
PO BOX 4128
EDMONTON ALBERTA
T6E 4T2

SHIP TO CUSTOMER NAME AND ADDRESS

RUSSEL METALS INC.
C/O CN SCOTSFORD DISTRIBUTION
4060 99TH STREET
SCOTFORD, ALBERTA T6E 3N5

CUSTOMER SPECIFICATION

HR MULTIPLE CERTIFIED PLATE - CARBON - ASTM A516 GR 70/ASME SA516 GR 70 (06) (09B) - CVNL 20/13 FT LBS AT -50 F - FINE GRAIN - NORMALIZED FOR 12 MINUTES MIN. @ 1670 F - PVQ - NORMALIZED - FLATNESS 1/2 A-20

MILL TEST REPORTS

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES.

M. MCLEAN
MANAGING METALLURGIST

SUPPLEMENTARY INSTRUCTIONS

TEST CERT 1: GBEYERS@RUSSELMETALS.COM TEST CERT 2: RWEISNER@RUSSELMETALS.COM PLATE TEST COUPON:

INSP T/R TEST REPORTS REQUIRED 2000166860 PF

CUST USE RESALE P/N 80678 2010/12/03 12:56

THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECIEVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (705)945-2624 COLLECT FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT.

MEETS EN 10204 3.1
ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ESSARSTEELALGOMA.COM
ALL HEATS FULLY KILLED
HEATS INDICATED WITH (*) FINE GRAINED
HEATS INDICATED WITH (+) MADE IN CANADA WITH DOMESTIC AND NORTH AMERICAN MATERIALS

* P R O D U C T S H I P P E D *

CUSTOMER ITEM 00001 OUR ITEM 001 DIMENSIONS .375 X 120 X 480 "

PLATE NUMBER	HEAT-MS	NO. PIECES	WEIGHT	PLATE NUMBER	HEAT-MS	NO. PIECES	WEIGHT
70952	9580K-53	1	6125				

* * * * * * * * * * * * * * * * * M E C H A N I C A L P R O P E R T I E S * * * * * * * * * * * * * * * * *

TENSILE TESTS:

HEAT	PLATE NUMBER	* SAMPLE * SRCE	GAUGE	* * TEST * * COND	METH	DIR	YIELD KSI	TENSILE KSI	% ELONG	LAB
9580K	70952	166"	.3750	N	.2	T	53.0	74.3	25(8")	ALG

IMPACT TESTS:

HEAT	PLATE NUMBER	SRCE	GAUGE IN	* * * * TEST * * * * COND	METH	DIR	SIZE	TEMP	FULLSIZE ENERGY * FTLB	* AVG*	SPEC	LAB
9580K	70952	166"	.3750	N	CVN	L	3/4	-50F	123 118 103	115	ASTM	ALG

WARNING THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE CHEMICAL ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIRMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

ESSAR Steel Algoma Inc. 105 West Street, Sault Ste. Marie, Ontario Canada P6A 7B4

CUSTOMER PURCHASE ORDER NUMBER	ENTRY DATE	SHIP DATE	TALLY NUMBER	SHIPPER'S NO.	CARRIER	MILL ORDER
M62006006	2010/10/04	2010/11/30	204342	-	CN -622361	68012

CHARGE TO CUSTOMER NAME AND ADDRESS

RUSSEL METALS INC.
PO BOX 4128
EDMONTON ALBERTA
T6E 4T2

SHIP TO CUSTOMER NAME AND ADDRESS

RUSSEL METALS INC.
C/O CN SCOTSFORD DISTRIBUTION
4060 99TH STREET
SCOTFORD, ALBERTA T6E 3N5

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M. MCLEAN
MANAGING METALLURGIST

CUSTOMER SPECIFICATION

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SUPPLEMENTARY INSTRUCTIONS

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INSP T/R TEST REPORTS REQUIRED

CUST USE RESALE P/N 80678

2000166860 PF
2010/12/03 12:56

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* * * * * * * * * * * * * * * * * * CHEMICAL PROPERTIES * * * * * * * * * * * * * * * * *

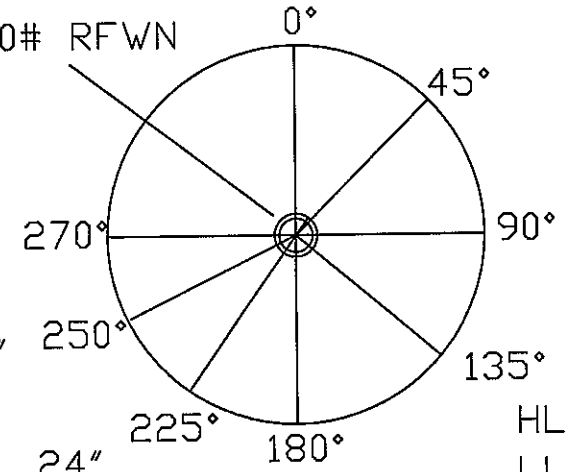
HEAT	(WT %)	C TI	MN SN	P N	S AS	SI ZR	CR PB	NI SB	CU	MO	AL	CB	V	B	DO
9580K*+		.19 .002	1.05	.009	.005	.30	.05	.03	.06	.01	.031	.000	.001		.38

WARNING THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE CHEMICAL ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIRMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

PENGROWTH
VESSEL ORIENTATION

JOB# 10-4806 24″ #1440, 3 PHASE

LONG SEAM



OUTLET 4″ 600# RFWN

INLET 4″ 600# RFWN @ 68″

COND. SG 3/4″ 6000# @ 27″, 46″

WATER SG 3/4″ 6000# @ 5″, 24″

TI 3/4″ 6M @ 46″

PI 1/2″ 6M @ 52″

SPARE 2″ 600# @ 48″

PSV 2″ 600# @ 60″

COND. DUMP 2″ 600# @ 28″

WATER DUMP 2″ 600# @ 5″

DRAIN 2″ 600#

SKIRT ACCESS

HLSD 3″ 600# @ 58″

LLSD 3″ 600# @ 6″

SKIRT 15″ HIGH

NAME TAG

HLLC 3″ 600# @ 44″

LLLC 3″ 600# @ 24″

SKIRT ACCESS

4″ in shell 42 mm inside proj. 4″ in heads 32 mm inside proj. 3″ in shell 40 mm inside proj.	4″ nozzles 6″ long sch. xxs 3″ nozzles 6″ long sch. xxs	24″ x 7/8″ shell 24″ x 1″ heads

CERTIFICATE OF COMPLIANCE

edmonton exchanger
& manufacturing ltd.

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

Customer RJV GASFIELD LTD. PO 2696 Work Order C88704 Date 2011/03/31 CofC# 23751

Item#	Description	Qty	Heat#	Weld Proc.	Form. Proc.
S88704-1-1	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350404-07813	WP600	4
S88704-1-2	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350405-05064	WP600	4
S88704-1-3	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350405-05064	WP600	4
S88704-1-4	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350405-05064	WP600	4
S88704-1-5	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350405-05064	WP600	4
S88704-1-6	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350405-05064	WP600	4
S88704-1-7	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350405-05064	WP600	4
S88704-1-8	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350404-06357	WP600	4
S88704-1-9	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350404-06357	WP600	4
S88704-1-10	SHELL(S) - 1.0000" NOM X 24" OD X 96" (Material Spec: SA 516-70 Normalized)	1	350404-06357	WP600	4

APR 0 5 2011

edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

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

Customer RJV GASFIELD LTD. PO 2696 Work Order C88704 Date 2011/03/31 CofC# 23751

Forming Procedure:
4. Cold Formed

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-80 and ASME Code Section VIII, Division 1, UCS-79(d), UG-79 & UG-80. All welders and procedures are qualified to ASME Code Section IX. For tacking carbon steel items, roundbar used is 1018 Cold Rolled. Material being supplied conforms to the latest ASME Code Section II, Part A, 2010 Edition.

Supplementary Examination - Items

DILLINGER HÜTTE

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

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

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

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

Sheet: 1/...

A05 Established inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

15711

B01-B99 Description of the product

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

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHDB Inspector's stamp

Date 17.09.10

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

BM 1

DILLINGER HÜTTE

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

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

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

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

A05 Established inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

B01-B99 Description of the product

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

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10

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

A01

BM 1

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

B01-B99 Description of the product

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

A04 D H Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10 BM 1

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

DILLINGER HÜTTE

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

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

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

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

A05 Established Inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

B01-B99 Description of the product

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

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10 BM 1

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

A01

DILLINGER HÜTTE

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

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

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

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

A05 Established inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness		B10 Width 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
05	1	0,8750	x	150,00000	x	480,00000	8104	N	350402	14854-01	
05	1	0,8750	x	150,00000	x	480,00000	8104	N	350402	14854-02	
**	2						16208				
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	06356-02	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	06356-03	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	06357-01	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	06357-02	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	06357-03	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	06943-01	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	06943-02	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	06943-03	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	07812-01	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	07812-02	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	07812-03	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	07813-01	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	07813-02	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	07813-03	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	10672-01	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	10672-02	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	10672-03	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	11097-01	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	11097-02	
07	1	1,0000	x	96,50000	x	480,00000	5959	N	350404	11097-03	

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10 BM 1

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

DILLINGER HÜTTE

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

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

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

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

A05 Established Inspecting body: DH

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

B01 Product: HOT ROLLED PLATES

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

B01-B99 Description of the product

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

B04 Product delivery condition

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

B06 Marking of the product

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

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10

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

A01

BM 1

DILLINGER HÜTTE

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

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

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

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet 7/...

A05 Established Inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

B07-B99 Further information about the product

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

C10-C29 Tensile test

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

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10

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

BM 1

DILLINGER HÜTTE

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

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

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

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

Sheet: 8/...

A05 Established Inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13 A % L0=8IN	C14-C15
02	350401	15645		K1	Q	RT		48,9	74,0	29	
02	350402	15169		K1	Q	RT		49,2	75,1	28	
02	350402	15399		K1	Q	RT		50,5	75,3	28	
02	350405	39714		K1	Q	RT		49,6	75,3	26	
02	350405	39946		K1	Q	RT		49,0	75,4	28	
02	350405	39963		K1	Q	RT		48,6	74,5	27	
02	350405	40537		K1	Q	RT		46,5	73,7	27	
03	350403	13199		K1	Q	RT		50,0	75,5	27	
03	350403	13308		K1	Q	RT		49,3	75,3	26	
04	350403	11964		K1	Q	RT		49,9	74,1	30	
04	350403	11979		K1	Q	RT		49,2	74,7	29	
04	350403	12013		K1	Q	RT		49,0	74,0	29	
04	350403	12280		K1	Q	RT		49,9	74,1	27	
04	350403	12638		K1	Q	RT		50,0	74,5	28	
04	350404	11955		K1	Q	RT		49,6	74,7	29	
04	350405	05031		K1	Q	RT		48,9	74,8	30	
05	350402	14854		K1	Q	RT		49,7	75,1	27	
07	350404	06356		K1	Q	RT		49,3	75,0	28	
07	350404	06357		K1	Q	RT		50,0	74,1	29	
07	350404	06943		K1	Q	RT		49,7	74,1	30	
07	350404	07812		K1	Q	RT		49,6	74,4	30	
07	350404	07813		K1	Q	RT		50,3	74,0	30	
07	350404	10672		K1	Q	RT		50,2	74,2	30	

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10 BM 1

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

DILLINGER HÜTTE

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

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

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

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

Sheet: 9/...

A05 Established inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13	A % L0=8IN	C14-C15
07	350404	11097		K1	Q	RT		48,3	73,8		30	
07	350405	05063		K1	Q	RT		50,2	74,7		29	
07	350405	05064		K1	Q	RT		50,5	74,4		28	
07	350405	05065		K1	Q	RT		50,0	74,1		31	

C30-C39 Hardness test

B14 Item. No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35	C31 Individual values			C32 Mean value
01	348840	11315		K1	O	RT	HBW 10/3000	HB	147	149	148	148
01	350041	63961		K1	O	RT	HBW 10/3000	HB	141	143	142	142
01	350399	17648		K1	O	RT	HBW 10/3000	HB	146	147	146	146
01	350399	17724		K1	O	RT	HBW 10/3000	HB	148	146	145	146
01	350399	20921		K1	O	RT	HBW 10/3000	HB	146	145	144	145
01	350399	21295		K1	O	RT	HBW 10/3000	HB	144	144	143	144
01	350399	21306		K1	O	RT	HBW 10/3000	HB	144	143	142	143
01	350399	21322		K1	O	RT	HBW 10/3000	HB	142	142	142	142
01	350405	39539		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	350405	39694		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	350405	39715		K1	O	RT	HBW 10/3000	HB	142	142	141	142
01	350405	39774		K1	O	RT	HBW 10/3000	HB	144	145	143	144
01	350405	39799		K1	O	RT	HBW 10/3000	HB	145	145	144	145
01	350405	39959		K1	O	RT	HBW 10/3000	HB	144	145	145	145
01	350405	39965		K1	O	RT	HBW 10/3000	HB	139	139	138	139
02	350401	15513		K1	O	RT	HBW 10/3000	HB	142	142	141	142

A01

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10

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

BM 1

DILLINGER HÜTTE

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

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

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

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 10/...

A05 Established inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C30-C39 Hardness test

B14 Item. No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35	C31 Individual values			C32 Mean value
02	350401	15526		K1	O	RT	HBW 10/3000	HB	142	142	139	141
02	350401	15608		K1	O	RT	HBW 10/3000	HB	141	140	139	140
02	350401	15610		K1	O	RT	HBW 10/3000	HB	142	141	140	141
02	350401	15626		K1	O	RT	HBW 10/3000	HB	138	139	139	139
02	350401	15645		K1	O	RT	HBW 10/3000	HB	139	139	137	138
02	350402	15169		K1	O	RT	HBW 10/3000	HB	141	142	140	141
02	350402	15399		K1	O	RT	HBW 10/3000	HB	146	146	144	145
02	350405	39714		K1	O	RT	HBW 10/3000	HB	144	144	144	144
02	350405	39946		K1	O	RT	HBW 10/3000	HB	145	144	145	145
02	350405	39963		K1	O	RT	HBW 10/3000	HB	142	142	141	142
02	350405	40537		K1	O	RT	HBW 10/3000	HB	141	141	140	141
03	350403	13199		K1	O	RT	HBW 10/3000	HB	143	143	142	143
03	350403	13308		K1	O	RT	HBW 10/3000	HB	142	143	142	142
04	350403	11964		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	11979		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	12013		K1	O	RT	HBW 10/3000	HB	143	144	143	143
04	350403	12280		K1	O	RT	HBW 10/3000	HB	142	142	142	142
04	350403	12638		K1	O	RT	HBW 10/3000	HB	141	141	142	141
04	350404	11955		K1	O	RT	HBW 10/3000	HB	141	141	141	141
04	350405	05031		K1	O	RT	HBW 10/3000	HB	144	146	144	145
05	350402	14854		K1	O	RT	HBW 10/3000	HB	148	146	145	146
07	350404	06356		K1	O	RT	HBW 10/3000	HB	142	142	141	142
07	350404	06357		K1	O	RT	HBW 10/3000	HB	139	140	139	139
07	350404	06943		K1	O	RT	HBW 10/3000	HB	142	142	142	142

A04 Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

Inspector's stamp

Date 17.09.10

BM 1

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

DILLINGER HÜTTE

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

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

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

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 11/...

A05 Established inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C30-C39 Hardness test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C35	C31 Individual values			C32 Mean value
07	350404	07812		K1	O	RT	HBW 10/3000	HB	145	145	144	145
07	350404	07813		K1	O	RT	HBW 10/3000	HB	144	145	144	144
07	350404	10672		K1	O	RT	HBW 10/3000	HB	146	144	143	144
07	350404	11097		K1	O	RT	HBW 10/3000	HB	144	144	144	144
07	350405	05063		K1	O	RT	HBW 10/3000	HB	146	147	146	146
07	350405	05064		K1	O	RT	HBW 10/3000	HB	144	144	144	144
07	350405	05065		K1	O	RT	HBW 10/3000	HB	144	144	144	144

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Mean value
01	348840	11315		K1	LV	-51		CHP-V			AV	101	123	139	121
01	350041	63961		K1	LV	-51		CHP-V			AV	208	195	181	195
01	350399	17648		K1	LV	-51		CHP-V			AV	193	125	111	143
01	350399	17724		K1	LV	-51		CHP-V			AV	117	181	148	149
01	350399	20921		K1	LV	-51		CHP-V			AV	124	120	162	135
01	350399	21295		K1	LV	-51		CHP-V			AV	119	119	198	145
01	350399	21306		K1	LV	-51		CHP-V			AV	141	209	132	161
01	350399	21322		K1	LV	-51		CHP-V			AV	122	197	193	171
01	350405	39539		K1	LV	-51		CHP-V			AV	184	196	195	192
01	350405	39694		K1	LV	-51		CHP-V			AV	208	187	142	179
01	350405	39715		K1	LV	-51		CHP-V			AV	104	194	152	150
01	350405	39774		K1	LV	-51		CHP-V			AV	119	198	139	152
01	350405	39799		K1	LV	-51		CHP-V			AV	129	162	197	163
01	350405	39959		K1	LV	-51		CHP-V			AV	198	150	206	185

A04 D H Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10

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

BM 1

DILLINGER HÜTTE

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

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

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

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet 12/...

A05 Established inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C40-C49 impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Mean value
01	350405	39965		K1	LV	-51		CHP-V			AV	192	147	190	176
02	350401	15513		K1	LV	-51		CHP-V			AV	128	150	127	135
02	350401	15526		K1	LV	-51		CHP-V			AV	195	209	128	177
02	350401	15608		K1	LV	-51		CHP-V			AV	137	131	130	133
02	350401	15610		K1	LV	-51		CHP-V			AV	117	193	186	165
02	350401	15626		K1	LV	-51		CHP-V			AV	122	212	190	175
02	350401	15645		K1	LV	-51		CHP-V			AV	145	207	198	183
02	350402	15169		K1	LV	-51		CHP-V			AV	159	118	201	159
02	350402	15399		K1	LV	-51		CHP-V			AV	186	164	136	162
02	350405	39714		K1	LV	-51		CHP-V			AV	144	201	116	154
02	350405	39946		K1	LV	-51		CHP-V			AV	205	124	125	151
02	350405	39963		K1	LV	-51		CHP-V			AV	119	192	124	145
02	350405	40537		K1	LV	-51		CHP-V			AV	131	131	195	152
03	350403	13199		K1	LV	-51		CHP-V			AV	120	148	117	128
03	350403	13308		K1	LV	-51		CHP-V			AV	130	188	142	153
04	350403	11964		K1	LV	-51		CHP-V			AV	192	106	181	160
04	350403	11979		K1	LV	-51		CHP-V			AV	90	142	130	121
04	350403	12013		K1	LV	-51		CHP-V			AV	136	118	146	133
04	350403	12280		K1	LV	-51		CHP-V			AV	109	187	195	164
04	350403	12638		K1	LV	-51		CHP-V			AV	114	157	116	129
04	350404	11955		K1	LV	-51		CHP-V			AV	117	127	125	123
04	350405	05031		K1	LV	-51		CHP-V			AV	157	128	190	158
05	350402	14854		K1	LV	-51		CHP-V			AV	118	125	136	126
07	350404	06356		K1	LV	-51		CHP-V			AV	131	129	145	135

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10

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

BM 1

DILLINGER HÜTTE

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

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

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

A08/ A03 Manufacturer's order/ Certificate No.: 357359-002 Sheet: 13/...

A05 Established Inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C40-C49 impact test

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

C70-C99 Chemical composition % - Heat analysis

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

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

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

A01

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

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

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

A08/ A03 Manufacturer's order/ Certificate No.: 357359-002 Sheet: 14/...

A05 Established Inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C70-C99 Chemical composition % - Heat analysis

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

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat										
348840	FO-02=	0,40	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,4
350041	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14	FO-78=	0,06	FO-91=	7,3
350399	FO-02=	0,39	FO-51=	0,001	FO-55=	0,17	FO-78=	0,06	FO-91=	6,8
350401	FO-02=	0,38	FO-51=	0,001	FO-55=	0,13	FO-78=	0,04	FO-91=	6,9
350402	FO-02=	0,39	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,8
350403	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14	FO-78=	0,04	FO-91=	6,9
350404	FO-02=	0,39	FO-51=	0,000	FO-55=	0,15	FO-78=	0,04	FO-91=	6,8
350405	FO-02=	0,39	FO-51=	0,001	FO-55=	0,14	FO-78=	0,05	FO-91=	6,9

C95 Ladle treatment

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

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

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

A01

Date 17.09.10 BM 1

DILLINGER HÜTTE

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

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

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

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

Sheet: 15/...

A05 Established Inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C95 Further information about ladle treatment

ITEM NO.: 01-05,07-08
CALCIUM TREATED

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
348840	11315	K1	0,187	0,376	1,17	0,009	0,0012	0,0059	0,040	0,012	0,052	0,034	0,000	0,001	0,001	0,003
350041	63959	K1	0,157	0,335	1,16	0,010	0,0011	0,0071	0,035	0,014	0,048	0,045	0,002	0,000	0,001	0,003
350041	63961	K1	0,157	0,340	1,16	0,011	0,0010	0,0074	0,036	0,013	0,047	0,045	0,002	0,000	0,001	0,003
350399	21322	K1	0,175	0,367	1,17	0,009	0,0012	0,0072	0,046	0,015	0,055	0,042	0,000	0,000	0,001	0,003
350401	15608	K1	0,165	0,361	1,16	0,008	0,0015	0,0079	0,035	0,010	0,054	0,026	0,001	0,000	0,001	0,001
350402	14890	K1	0,168	0,389	1,17	0,010	0,0011	0,0065	0,036	0,011	0,065	0,027	0,001	0,001	0,001	0,003
350402	15169	K1	0,172	0,376	1,15	0,009	0,0010	0,0068	0,036	0,010	0,061	0,027	0,001	0,000	0,000	0,002
350403	11979	K1	0,171	0,367	1,16	0,009	0,0012	0,0067	0,042	0,007	0,063	0,032	0,001	0,000	0,000	0,002
350403	13199	K1	0,170	0,385	1,17	0,010	0,0017	0,0067	0,037	0,010	0,064	0,027	0,001	0,000	0,000	0,003
350404	11097	K1	0,164	0,375	1,17	0,009	0,0015	0,0064	0,042	0,008	0,063	0,031	0,001	0,000	0,000	0,003
350404	11955	K1	0,172	0,366	1,15	0,008	0,0012	0,0062	0,041	0,008	0,062	0,031	0,001	0,000	0,001	0,002
350405	05031	K1	0,173	0,376	1,17	0,008	0,0014	0,0059	0,041	0,010	0,062	0,033	0,000	0,001	0,001	0,002
350405	05063	K1	0,173	0,374	1,17	0,009	0,0013	0,0064	0,044	0,008	0,068	0,031	0,000	0,000	0,000	0,002
350405	39946	K1	0,175	0,370	1,16	0,008	0,0014	0,0061	0,037	0,010	0,055	0,035	0,000	0,000	0,001	0,003
350405	39965	K1	0,173	0,369	1,17	0,009	0,0012	0,0061	0,037	0,009	0,054	0,036	0,000	0,000	0,000	0,003

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10

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

A01

BM 1

DILLINGER HÜTTE

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

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

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

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

A05 Established Inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C70-C99 Chemical composition % - Product analysis

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

C94 Product analysis Carbon equivalent / Alloying restrictions

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

A04 D H Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

Date 17.09.10

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

BM 1

DILLINGER HÜTTE

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

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

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

A08/ Manufacturer's order/ A03 Certificate No.: 357359-002 Sheet: 17

A05 Established Inspecting body: DH

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

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

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

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01						
350403	11979	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14
350403	13199	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14
350404	11097	K1	FO-02=	0,37	FO-51=	0,001	FO-55=	0,14
350404	11955	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,14
350405	05031	K1	FO-02=	0,38	FO-51=	0,001	FO-55=	0,15
350405	05063	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,15
350405	39946	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,14
350405	39965	K1	FO-02=	0,38	FO-51=	0,000	FO-55=	0,14

C94 Carbon equivalent formula / Alloying restrictions

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

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

ITEM NO.: 01-05,07-08
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS

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

MTR APPROVED EDMONTON EXCHANGER

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

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

A01

Date 17.09.10 BM 1

CERTIFICATE OF COMPLIANCE

edmonton exchanger
& manufacturing ltd.

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

Customer RJV GASFIELD LTD. PO 2696 Work Order C88704 Date 2011/03/28 CofC# 23655 Page 1 of 1

Item#	Description	Qty	Heat#	Required Min Thk	Recorded Min Thk	Form. Proc.
H88704-2	HEAD(S) - Semi-Elliptical 2:1 - 1.0000" NOM (0.9375"_MIN) X 24" OD (Material Spec: SA 516-70 Normalized)	1	G7491-879270408	0.9375"	0.9550"	1
		1	G7493-879270310	0.9375"	0.9560"	1
		6	G7547-879270469	0.9375"	0.9590"	1
		4	G7547-879270469	0.9375"	0.9470"	1
		6	G7546-879270463	0.9375"	0.9500"	1
		1	G7491-879270409	0.9375"	0.9510"	1
		1	58606-51936	0.9375"	0.9670"	1

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

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

APR 0 5 2011

DILLINGER HÜTTE

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

A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049
CERTIFICAT DE RECEPTION 3.1.B NF EN 10204
INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT

A09 Advice of dispatch No./ Date of dispatch: 152917-14.09.04

A08/ Manufacturer's order/ A03 Certificate No.: 283849-001

Sheet: 1/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

10234

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness		B12 Width INCH		B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51956-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51956-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51958-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51958-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51958-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51959-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51959-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51959-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51960-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51960-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51960-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51961-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51961-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51961-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51962-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51962-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51962-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51963-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51963-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51963-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51949-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51951-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51951-02	ITEM 1

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB Inspector's stamp

Date 14.09.04 KW 1

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

DILLINGER HÜTTE

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

A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049
CERTIFICAT DE RECEPTION 3.1.B NF EN 10204
INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT

A09 Advice of dispatch No./ Date of dispatch: 152917-14.09.04

A08/ Manufacturer's order/ A03 Certificate No.: 283849-001

Sheet: 2/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness		B12 Width INCH		B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51951-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51955-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51955-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51955-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51941-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51941-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51941-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51943-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51945-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51945-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51945-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51947-03	ITEM 1
**	35						195300				
02	1	0,8750	x	120,50000	x	480,00000	6510	N	57466	42249-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	57466	42249-02	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	57466	42249-03	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51948-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51948-03	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51950-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51950-02	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51950-03	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51954-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51954-02	ITEM 2

A04

D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

A01

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

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS. EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	3/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness		B12 Width INCH		B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51954-03	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58607	51929-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58607	51929-02	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58607	51931-03	ITEM 2
**	14						91140				
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51940-01	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51940-02	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51940-03	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51942-01	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51942-02	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51942-03	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51944-01	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51944-02	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51944-03	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58607	51928-01	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58607	51928-02	ITEM 3
**	11						81840				
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51932-02	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51932-03	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51933-01	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51933-02	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51933-03	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51934-01	ITEM 4

A04

D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

A01

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

DILLINGER HÜTTE

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

A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049 CERTIFICAT DE RECEPTION 3.1.B NF EN 10204 INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT	A09 Advice of dispatch No./ Date of dispatch 152917-14.09.04	A08/ Manufacturer's order/ A03 Certificate No. 283849-001	Sheet 4/...
A05 Established Inspecting body DH	A06 Purchaser ARCELOR CANADA, BURLI A07.1 No. 40358 Final receiver EDMONTON STEEL, EDMON A07.2 No. E10296-J1010-LG	B01 Product HOT ROLLED PLATES	

B02/ Steel grade SA516-70
B03 Specifications ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness	B12 Width INCH	B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51934-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51934-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51935-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51935-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51935-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51936-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51936-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51936-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51937-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51937-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51937-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51938-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51938-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51938-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51939-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51939-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51939-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58607	51927-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58607	51927-02	ITEM 4
**	25				186000				
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51915-01	ITEM 5
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51915-02	ITEM 5
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51916-01	ITEM 5

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

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

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	5/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA, BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL, EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness		B12 Width INCH		B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
05	1	1,1250	x	121,00000	x	480,00000	8405	N	58608	51916-02	ITEM 5
05	1	1,1250	x	121,00000	x	480,00000	8405	N	58608	51917-01	ITEM 5
05	1	1,1250	x	121,00000	x	480,00000	8405	N	58608	51917-02	ITEM 5
**	6						50430				
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51918-01	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51918-02	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51919-01	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51919-02	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51920-01	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51920-02	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51921-01	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51921-02	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51922-01	ITEM 6
06	1	1,2500	x	121,00000	x	480,00000	9339	N	58608	51922-02	ITEM 6
**	10						93390				
***	101						698100				

B04 Delivery condition / Heat treatment of plates

ITEM NO.: 01-06
N: HT: 1634 GR.F +27 -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 DH Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

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

A01

Date 14.09.04 KW 1

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	6/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B06 Marking

ITEM NO.: 01-06
STEEL GRADE SA516 70 MTLTV SA516 60 MTLTV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

C10-C29 Tensile test

B09 Item No.	B08 Heat No.	B07 Rol.plate/ Test No.	B05 Reference condition	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13	A % L0=8IN	C14-C15 A % L0=2IN
01	58601	51956		K4	Q	RT		49,4	73,2		29,4	
01	58601	51958		K4	Q	RT		50,2	74,0		29,4	
01	58601	51959		K4	Q	RT		50,3	74,1		28,9	
01	58601	51960		K4	Q	RT		48,9	73,7		30,4	
01	58601	51961		K4	Q	RT		49,2	73,8		30,4	
01	58601	51962		K4	Q	RT		50,5	73,7		30,9	
01	58601	51963		K4	Q	RT		50,3	74,1		30,4	
01	58604	51949		K4	Q	RT		49,9	74,4		31,9	
01	58604	51951		K4	Q	RT		48,9	74,1		30,4	
01	58604	51955		K4	Q	RT		50,8	74,1		30,4	
01	58605	51941		K4	Q	RT		49,0	74,8		28,9	
01	58605	51943		K4	Q	RT		49,0	74,4		28,0	
01	58605	51945		K4	Q	RT		49,2	74,4		30,4	
01	58605	51947		K4	Q	RT		49,6	73,8		29,4	
02	57466	42249		K4	Q	RT		50,9	75,0		31,9	
02	58604	51948		K4	Q	RT		49,4	74,4		29,4	
02	58604	51950		K4	Q	RT		49,6	74,1		31,9	
02	58604	51954		K4	Q	RT		49,7	74,0		30,4	
02	58607	51929		K4	Q	RT		48,3	73,4		29,4	

A04

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

QM-System: Certification as per ISO 9001

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Date 14.09.04 KW 1

A01

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

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	7/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C10-C29 Tensile test

B09 Item No.	B08 Heat No.	B07 Rol.plate/ Test No.	B05 Reference condition	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13	A % L0=8IN	C14-C15 A % L0=2IN
02	58607	51931		K4	Q	RT		48,4	74,2		29,9	
03	58605	51940		K4	Q	RT		49,0	74,1		29,4	
03	58605	51942		K4	Q	RT		47,9	74,2		30,9	
03	58605	51944		K4	Q	RT		49,2	74,1		30,4	
03	58607	51928		K4	Q	RT		47,4	73,1		30,9	
04	58606	51932		K4	Q	RT		48,0	73,2		30,9	
04	58606	51933		K4	Q	RT		48,1	73,1		31,9	
04	58606	51934		K4	Q	RT		48,4	73,2		32,4	
04	58606	51935		K4	Q	RT		47,9	72,9		30,4	
04	58606	51936		K4	Q	RT		48,7	74,0		29,4	
04	58606	51937		K4	Q	RT		47,0	74,1		30,9	
04	58606	51938		K4	Q	RT		47,0	73,7		31,4	
04	58606	51939		K4	Q	RT		48,1	74,2		30,4	
04	58607	51927		K4	Q	RT		47,9	72,8		30,9	
05	58608	51915		K4	Q	RT		49,0	73,2		32,4	
05	58608	51916		K4	Q	RT		48,9	73,1		31,9	
05	58608	51917		K4	Q	RT		49,7	73,1		30,9	
06	58608	51918		K4	QV	RT		48,4	74,4			34,5
06	58608	51919		K4	QV	RT		48,1	74,2			35,8
06	58608	51920		K4	QV	RT		47,6	73,8			36,1
06	58608	51921		K4	QV	RT		48,4	73,7			33,2
06	58608	51922		K4	QV	RT		47,3	73,4			36,6

A04

D H
Trademark

Z01/Z02 We 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
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AHB
Inspector's stamp

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

A01

Date 14.09.04 KW 1

DILLINGER HÜTTE

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A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049
CERTIFICAT DE RECEPTION 3.1.B NF EN 10204
INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT

A09 Advice of dispatch No./ Date of dispatch: 152917-14.09.04

A08/ Manufacturer's order/ A03 Certificate No.: 283849-001

Sheet: 8/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C40-C49 Impact test

B09 Item No.	B08 Heat No.	B07 Rol.plate/ Test No.	B05 Reference condition	C01	C02/ C01	C03 Temp. GR.F	C41 Specimen width	C40 Type of specimen	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Average value
01	58601	51956		K4	LV	-51		CHP-V			AV	190	156	218	188
01	58601	51958		K4	LV	-51		CHP-V			AV	142	128	199	156
01	58601	51959		K4	LV	-51		CHP-V			AV	194	187	201	194
01	58601	51960		K4	LV	-51		CHP-V			AV	93	135	199	142
01	58601	51961		K4	LV	-51		CHP-V			AV	176	131	124	144
01	58601	51962		K4	LV	-51		CHP-V			AV	152	207	94	151
01	58601	51963		K4	LV	-51		CHP-V			AV	187	111	128	142
01	58604	51949		K4	LV	-51		CHP-V			AV	125	158	195	159
01	58604	51951		K4	LV	-51		CHP-V			AV	200	117	190	169
01	58604	51955		K4	LV	-51		CHP-V			AV	122	165	201	163
01	58605	51941		K4	LV	-51		CHP-V			AV	74	105	68	82
01	58605	51943		K4	LV	-51		CHP-V			AV	118	128	145	130
01	58605	51945		K4	LV	-51		CHP-V			AV	125	132	188	148
01	58605	51947		K4	LV	-51		CHP-V			AV	131	108	202	147
02	57466	42249		K4	LV	-51		CHP-V			AV	98	63	103	88
02	58604	51948		K4	LV	-51		CHP-V			AV	131	155	194	160
02	58604	51950		K4	LV	-51		CHP-V			AV	118	136	199	151
02	58604	51954		K4	LV	-51		CHP-V			AV	121	115	125	120
02	58607	51929		K4	LV	-51		CHP-V			AV	130	112	106	116
02	58607	51931		K4	LV	-51		CHP-V			AV	128	102	126	119
03	58605	51940		K4	LV	-51		CHP-V			AV	98	105	54	86
03	58605	51942		K4	LV	-51		CHP-V			AV	89	97	93	93
03	58605	51944		K4	LV	-51		CHP-V			AV	148	97	104	116
03	58607	51928		K4	LV	-51		CHP-V			AV	127	142	117	129

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

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

DILLINGER HÜTTE

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A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	9/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA, BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL, EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C40-C49 Impact test

B09 Item No.	B08 Heat No.	B07 Rol.plate/ Test No.	B05 Reference condition	C01	C02/ C01	C03 Temp. GR.F	C41 Specimen width	C40 Type of specimen	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Average value
04	58606	51932		K4	LV	-51		CHP-V			AV	132	86	120	113
04	58606	51933		K4	LV	-51		CHP-V			AV	58	136	66	87
04	58606	51934		K4	LV	-51		CHP-V			AV	125	140	145	137
04	58606	51935		K4	LV	-51		CHP-V			AV	162	128	122	137
04	58606	51936		K4	LV	-51		CHP-V			AV	110	97	107	105
04	58606	51937		K4	LV	-51		CHP-V			AV	104	99	85	96
04	58606	51938		K4	LV	-51		CHP-V			AV	119	107	91	106
04	58606	51939		K4	LV	-51		CHP-V			AV	113	103	119	112
04	58607	51927		K4	LV	-51		CHP-V			AV	167	129	175	157
05	58608	51915		K4	LV	-51		CHP-V			AV	132	114	102	116
05	58608	51916		K4	LV	-51		CHP-V			AV	111	164	66	114
05	58608	51917		K4	LV	-51		CHP-V			AV	152	85	71	103
06	58608	51918		K4	LV	-51		CHP-V			AV	74	153	112	113
06	58608	51919		K4	LV	-51		CHP-V			AV	75	109	145	110
06	58608	51920		K4	LV	-51		CHP-V			AV	141	100	72	104
06	58608	51921		K4	LV	-51		CHP-V			AV	89	95	86	90
06	58608	51922		K4	LV	-51		CHP-V			AV	102	23	114	80

C70-C99 Chemical composition % - Heat analysis

B08 Heat	C70	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
57466	Y	0,182	0,366	1,17	0,009	0,0010	0,0057	0,038	0,019	0,029	0,039	0,080	0,000	0,000	0,000
58601	Y	0,172	0,359	1,17	0,009	0,0008	0,0054	0,042	0,011	0,015	0,026	0,044	0,000	0,000	0,000
58604	Y	0,174	0,355	1,19	0,010	0,0005	0,0047	0,033	0,021	0,030	0,032	0,047	0,000	0,000	0,000
58605	Y	0,183	0,352	1,17	0,011	0,0020	0,0051	0,045	0,017	0,023	0,027	0,049	0,001	0,000	0,000

A04

D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

A01

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

DILLINGER HÜTTE

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A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	10/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA, BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL, EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C70-C99 Chemical composition % - Heat analysis

B08 Heat	C70	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
58606	Y	0,174	0,355	1,17	0,012	0,0016	0,0046	0,039	0,026	0,013	0,025	0,057	0,001	0,000	0,000
58607	Y	0,172	0,369	1,16	0,007	0,0010	0,0056	0,035	0,021	0,031	0,031	0,034	0,000	0,000	0,000
58608	Y	0,172	0,367	1,15	0,008	0,0009	0,0058	0,030	0,012	0,004	0,017	0,027	0,000	0,000	0,000

B08 Heat	C70	TI	B
57466	Y	0,002	0,0002
58601	Y	0,001	0,0001
58604	Y	0,002	0,0002
58605	Y	0,002	0,0003
58606	Y	0,002	0,0005
58607	Y	0,002	0,0004
58608	Y	0,002	0,0002

C94 Heat analysis Carbon equivalent / Alloying restrictions

B08 Heat								
57466	FO-02=	0,40	FO-55=	0,17	FO-78=	0,11	FO-91=	6,4
58601	FO-02=	0,38	FO-55=	0,10	FO-78=	0,06	FO-91=	6,8
58604	FO-02=	0,39	FO-55=	0,13	FO-78=	0,08	FO-91=	6,8
58605	FO-02=	0,40	FO-55=	0,12	FO-78=	0,07	FO-91=	6,4
58606	FO-02=	0,39	FO-55=	0,12	FO-78=	0,07	FO-91=	6,7
58607	FO-02=	0,38	FO-55=	0,12	FO-78=	0,07	FO-91=	6,7
58608	FO-02=	0,37	FO-55=	0,06	FO-78=	0,03	FO-91=	6,7

A04 DH Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB Inspector's stamp

Date 14.09.04 KW 1

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

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A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	11/...

A05 Established Inspecting body	A06 Purchaser		A07.1 No.	B01 Product
DH		ARCELOR CANADA,BURLI	40358	HOT ROLLED PLATES
	Final receiver	EDMONTON STEEL,EDMON	A07.2 No. E10296-J1010-LG	

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C95 Ladle treatment

ITEM NO.: 01-06

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

C70-C99 Chemical composition % - Product analysis

B08 Heat	B07 Test No.	C01	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
57466	42249	K4	0,177	0,361	1,15	0,008	0,0009	0,0055	0,038	0,019	0,030	0,040	0,077	0,000	0,000	0,000
58601	51956	K4	0,164	0,363	1,17	0,009	0,0006	0,0046	0,046	0,012	0,017	0,027	0,040	0,000	0,000	0,000
58604	51951	K4	0,170	0,345	1,17	0,009	0,0003	0,0044	0,034	0,020	0,030	0,032	0,046	0,000	0,000	0,000
58604	51952	K4	0,166	0,357	1,17	0,009	0,0004	0,0048	0,036	0,016	0,024	0,030	0,046	0,000	0,000	0,000
58605	51945	K4	0,171	0,354	1,17	0,010	0,0008	0,0051	0,033	0,021	0,032	0,033	0,045	0,001	0,000	0,000
58605	51946	K4	0,175	0,345	1,17	0,009	0,0015	0,0049	0,037	0,018	0,027	0,030	0,046	0,000	0,000	0,000
58606	51936	K4	0,170	0,350	1,18	0,010	0,0018	0,0052	0,042	0,021	0,015	0,026	0,053	0,000	0,000	0,000
58607	51928	K4	0,165	0,379	1,13	0,009	0,0012	0,0052	0,036	0,024	0,018	0,027	0,045	0,000	0,000	0,001
58607	51929	K4	0,164	0,378	1,16	0,010	0,0014	0,0048	0,040	0,028	0,009	0,025	0,054	0,000	0,000	0,001
58608	51915	K4	0,166	0,363	1,13	0,007	0,0007	0,0061	0,031	0,012	0,005	0,017	0,025	0,000	0,000	0,000
58608	51922	K4	0,164	0,361	1,16	0,006	0,0006	0,0056	0,034	0,021	0,031	0,031	0,029	0,000	0,000	0,000

B08 Heat	B07 Test No.	C01	TI	B
57466	42249	K4	0,002	0,0000
58601	51956	K4	0,001	0,0001
58604	51951	K4	0,002	0,0003
58604	51952	K4	0,002	0,0002
58605	51945	K4	0,002	0,0002
58605	51946	K4	0,002	0,0003
58606	51936	K4	0,002	0,0004
58607	51928	K4	0,001	0,0004

A04

D H

Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

A01

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

DILLINGER HÜTTE

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

A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049 CERTIFICAT DE RECEPTION 3.1.B NF EN 10204 INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT	A09 Advice of dispatch No./ Date of dispatch 152917-14.09.04	A08/ Manufacturer's order/ A03 Certificate No. 283849-001	Sheet 12/...

A05 Established Inspecting body DH	A06 Purchaser Final receiver	ARCELOR CANADA,BURLI A07.1 No. 40358 EDMONTON STEEL,EDMON A07.2 No. E10296-J1010-LG

B01 Product
HOT ROLLED PLATES

B02/ Steel grade SA516-70
B03 Specifications ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C70-C99 Chemical composition % - Product analysis

B08 Heat	B07 Test No.	C01	Ti	B
58607	51929	K4	0,002	0,0003
58608	51915	K4	0,002	0,0002
58608	51922	K4	0,002	0,0003

C94 Product analysis Carbon equivalent / Alloying restrictions

B08 Heat	B07 Test No.	C01				
57466	42249	K4	FO-02=	0,39	FO-55=	0,17
58601	51956	K4	FO-02=	0,37	FO-55=	0,10
58604	51951	K4	FO-02=	0,38	FO-55=	0,13
58604	51952	K4	FO-02=	0,38	FO-55=	0,12
58605	51945	K4	FO-02=	0,39	FO-55=	0,13
58605	51946	K4	FO-02=	0,39	FO-55=	0,12
58606	51936	K4	FO-02=	0,38	FO-55=	0,12
58607	51928	K4	FO-02=	0,37	FO-55=	0,11
58607	51929	K4	FO-02=	0,37	FO-55=	0,12
58608	51915	K4	FO-02=	0,36	FO-55=	0,06
58608	51922	K4	FO-02=	0,37	FO-55=	0,11

C94 Carbon equivalent formula / Alloying restrictions

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

A04 D H Trademark

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QM-System: Certification as per ISO 9001

B. MUELLER
Der Werkssachverständige

AHB
Inspector's stamp

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

Date 14.09.04 KW 1

DILLINGER HÜTTE

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

A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049 CERTIFICAT DE RECEPTION 3.1.B NF EN 10204 INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT	A09 Advice of dispatch No./ Date of dispatch 152917-14.09.04	A08/ Manufacturer's order/ A03 Certificate No. 283849-001	Sheet 13

A05 Established Inspecting body DH	A06 Purchaser ARCELOR CANADA,BURLI A07.1 No. 40358 Final receiver EDMONTON STEEL,EDMON A07.2 No. E10296-J1010-LG	B01 Product HOT ROLLED PLATES

B02/ Steel grade SA516-70
B03 Specifications ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

D01 Checking of marking, surface, shape and dimensions

ITEM NO.: 01-06
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS

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

MTR APPROVED EDMONTON EXCHANGER

A04 D H Trademark

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QM-System: Certification as per ISO 9001

B. MUELLER
Der Werkssachverständige

AHB Inspector's stamp

Date 14.09.04 KW 1

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

A01

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 12
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P0700 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION CLC ※1 ※2	引張試験 TENSILE TEST 耐力降伏点 YS -YP- D.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST DIRECTION ※4	LOCATION ORIENTATION ※1	衝撃試験 IMPACT TEST 2V - 50F FT.LB SIZE ※5	平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq 1 ×100	熱処理 CONDITION OF SUPPLY ※7
03			G7547											293	AVG															
1'X96.5'X480'	1	5958	55586	879270316	TC	I 53	76	31			TL	F 297		303	154	15	38	146	9	2	2	2	2	0	13	0	32	40	
														295			32	2	6		0	13	2	0						
																P15	38	144	9	2	2	2	2	0	14	0		40	
																	35		6			19	0	0						
04			G7491	TESTED-PL										297	AVG	16	36	143	9	1	2	2	2	0	12	0	23	40	
1'X120.5'X480'	1	7442	55154	879270405	TC	I 53	76	32			TL	F 295		302	151		32	2	6		0	9	2	0						
														285																
																P15	37	143	8	2	2	2	2	0	11	0		40	
																	34		6			15	0	0						
04			G7491											297	AVG	16	36	143	9	1	2	2	2	0	12	0	23	40	
1'X120.5'X480'	1	7442	55154	879270406	TC	I 53	76	32			TL	F 295		302	151		32	2	6		0	9	2	0						
														285																
																P15	37	143	8	2	2	2	2	0	11	0		40	
																	34		6			15	0	0						

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

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

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

15763

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

AY4002202742

B

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

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

注文者 SHIPPER: HANWA CO., LTD.
注文者照合番号 REFERENCE No.: 228-38501040
契約番号 CONTRACT No.: 0-831-H1-5-0-AT01
商品名 COMMODITY: HOT ROLLED STEEL PLATES
規格 SPECIFICATION: ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No.:
需要家 CUSTOMER: EDMONTON EXCHANGER GROUP OF COMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No.: P-09818 頁 PAGE: 13
発行年月日 DATE OF ISSUE: 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No.: E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	RA % ※3	BEND TEST ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※5	2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	CONDITION OF SUPPLY ※7
04 1"X120.5'X480"	1	7442	G7491 / 55155	TESTED-PL 879270409	TC	I	53	76	32			TL	F	250	136 310 305	AVG 152		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
																	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	
04 1"X120.5'X480"	1	7442	G7491 / 55155	879270410	TC	I	53	76	32			TL	F	250	136 310 305	AVG 152		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
																	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	
04 1"X120.5'X480"	1	7442	G7491 / 55156	TESTED-PL 879270413	TC	I	54	76	34			TL	F	286	298 271 290	AVG 153		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
																	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	

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

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

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

AX4001302742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 14
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL. ※1	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST	LOCATION ORIENTATION ※1	衝撃試験 IMPACT TEST 2V - 50F FT.LB SIZE ※5	平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	製品状態 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G7491 55156	879270414	TC	54	76	34			TL	F286		298 271 290	AVG 153	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1"X120.5"X480"	1	7442	G7491 55157	TESTED-PL 879270401	TC	53	76	32			TL	F301		304 290 308	AVG 153	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1"X120.5"X480"	1	7442	G7491 55157	879270402	TC	53	76	32			TL	F301		304 290 308	AVG 153	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	

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

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

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

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

AY4001402742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-09818　頁 PAGE : 15
発行年月日 DATE OF ISSUE : 2010-10-25
1001　2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	Tensile LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	曲げ試験 BEND TEST ※4	Impact LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
04 1"X120.5'X480"	1	7442	G7491 / 55159	TESTED-PL 879270403	TC	1	54	76	31			TL	F	293	304 295 279	AVG 151
04 1"X120.5'X480"	1	7442	G7491 / 55159	879270404	TC	1	54	76	31			TL	F	293	304 295 279	AVG 151
04 1"X120.5'X480"	1	7442	G7491 / 55160	879270408	TC	1	53	76	33			TL	F	299	294 300 303	AVG 152

化学成分 CHEMICAL COMPOSITION %

Plate No.	※6	C ×100 / ×1000	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 / ×1000	V ×100 / ×1000	TAl ×1000	Ceq.1 ×100	製造条件 CONDITION OF SUPPLY ※7
		×1000	N ×10000	TE3 ×10000	TE1 ×100	×100	SN ×100	CA ×10000	B ×10000	TI ×100		Pcm ×100	Sol. Al ×1000	Ceq.2 ×100	
879270403		16	36	143	9	1	2	2	2	0	12	0	23	40	
			32	2	6		0	9	2	0					
	P	15	37	143	8	2	2	2	2	0	11	0		40	
			34		6			15	0	0					
879270404		16	36	143	9	1	2	2	2	0	12	0	23	40	
			32	2	6		0	9	2	0					
	P	15	37	143	8	2	2	2	2	0	11	0		40	
			34		6			15	0	0					
879270408		16	36	143	9	1	2	2	2	0	12	0	23	40	
			32	2	6		0	9	2	0					
	P	15	37	143	8	2	2	2	2	0	11	0		40	
			34		6			15	0	0					

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

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

AY4001502742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

証明書番号 CERTIFICATE No. : P-09818
頁 PAGE : 16
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION	GL	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	%	BEND TEST	LOCATION ORIENTATION	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	TiAl	Ceq.1	熱処理 CONDITION OF SUPPLY
04 1"X120.5"X480"	1	7442	G7491 55161	TESTED-PL 879270411	TC	1	53	76	33			TLF	286	277 297 285	AVG 150	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1"X120.5"X480"	1	7442	G7491 55161	879270412	TC	1	53	76	33			TLF	286	277 297 285	AVG 150	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1"X120.5"X480"	1	7442	G7491 55162	TESTED-PL 879270415	TC	1	54	76	32			TLF	293	285 289 304	AVG 152	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	

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

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

A3400160742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

本社 HEAD OFFICE : 〒100-8071 東京都千代田区丸の内二丁目6番1号 2-6-1, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
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注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
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商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 17
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST GL ※2	耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※5	平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % ※6	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	材質状態 CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7491 55162	879270416	TC	I	54	76	32			TLF	293		285 289 304	AVG 152		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																	P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1'X120.5'X480'	1	7442	G7491 55166	TESTED-PL 879270417	TC	I	54	76	32			TLF	283		283 282 284	AVG 153		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																	P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1'X120.5'X480'	1	7442	G7491 55166	879270418	TC	I	54	76	32			TLF	283		283 282 284	AVG 153		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																	P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※3 RA :絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:標準寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:6.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis, 温度 Temperature °C °F
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

A2400170274 2

B

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

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 18
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST	LOCATION ORIENTATION ※1	SIZE ※5	2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100 / N ×10000	Si ×100 / TE3	Mn ×100 / TE1	P ×1000 / SN	S ×1000 / CA	Cu ×100 / B	Ni ×100 / TI	Cr ×100	Mo ×100	Nb ×1000	V ×100 / Pcm	TAl ×1000 / Sol.Al	Ceq.1 ×100 / Ceq.2	CONDITION OF SUPPLY ※7
1"X120.5"X480" 04	1	7442	G7491 55169	TESTED-PL 879270419	TC	I	55	76	34			TL	F	267	278 256 268	AVG 152		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																	P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
1"X120.5"X480" 04	1	7442	G7491 55169	879270420	TC	I	55	76	34			TL	F	267	278 256 268	AVG 152		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																	P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
1"X120.5"X480" 04	1	7442	G7546 55568	TESTED-PL 879270455	TC	I	53	75	33			TL	F	287	287 281 292	AVG 152		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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T. Adachi
君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
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規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
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新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09818
頁 PAGE : 19
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	HEAT TREATMENT ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW		化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	T.Al ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
																			N ×1000	TE3 ×1000	TE1 ×100		SN ×100	CA ×10000	B ×10000	TI ×100		Pcm ×100	Sol. Al ×100	Ceq.2 ×100	
04 1'X120.5'X480'	1	7442	G7546 55568	879270456	TC	1	53	75	33			TL	F287		287 281 292	AVG 152		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1'X120.5'X480'	1	7442	G7546 55569	TESTED-PL 879270453	TC	1	54	75	31			TL	F286		290 275 293	AVG 150		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1'X120.5'X480'	1	7442	G7546 55569	879270454	TC	1	54	75	31			TL	F286		290 275 293	AVG 150		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	

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

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

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

AY4001902742

B

新日本製鐵株式會社
Nippon Steel Corporation

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

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES
文書番号 DOCUMENT No. :

証明書番号 CERTIFICATE No. : P-09818　頁 PAGE : 20
発行年月日 DATE OF ISSUE : 2010-10-25
1001
需要家管理番号 CUSTOMER'S CONTROL No. : 2**DM***** *****CEW** E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ※1	ORIENTATION ※2	GL	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ※1	ORIENTATION	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×1000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×1000 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	納入状態 CONDITION OF SUPPLY ※7
1'X120.5'X480' 04	1	7442	G7546 / 55570	TESTED-PL 879270463	T	C	1	53	75	33			T	L	F	299	294 299 304	AVG 151		16	37 / 31	145 / 2	8 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	12	0	25	41	
																			P	15	37 / 33	144	7 / 6	2	2	2 / 15	2 / 0	0 / 0	12	0		40	
1'X120.5'X480' 04	1	7442	G7546 / 55570	879270464	T	C	1	53	75	33			T	L	F	299	294 299 304	AVG 151		16	37 / 31	145 / 2	8 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	12	0	25	41	
																			P	15	37 / 33	144	7 / 6	2	2	2 / 15	2 / 0	0 / 0	12	0		40	
1'X120.5'X480' 04	1	7442	G7546 / 55571	TESTED-PL 879270459	T	C	1	53	75	31			T	L	F	281	261 296 286	AVG 150		16	37 / 31	145 / 2	8 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	12	0	25	41	
																			P	15	37 / 33	144	7 / 6	2	2	2 / 15	2 / 0	0 / 0	12	0		40	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65√So, K: 4√So
※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A: 合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis, 試験 Temperature °C °F
※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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上記注文品は御指定の規格または仕様に従って製造され、その要求事項を満足していることを証明します。

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

AY4002002742

B

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

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818　頁 PAGE : 21
発行年月日 DATE OF ISSUE : 2010-10-25
1001　2**DM*****　*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ″:inch, ′:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ※1	ORIENTATION ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ※1	ORIENTATION	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N	Mn ×100 / TE3	P ×1000 / TE1	S ×1000	Cu ×100 / SN	Ni ×100 / CA	Cr ×100 / B	Mo ×100 / TI	Nb ×1000	V ×100 / Pcm	T.Al ×1000 / Sol.Al	Ceq.1 ×100 / Ceq.2	CONDITION OF SUPPLY ※7
04 1′X120.5′X480′	1	7442	G7546 55571	879270460	T	C	53	75	31			T	L	F	281	261 296 286	AVG 150		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																		P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1′X120.5′X480′	1	7442	G7546 55572	TESTED-PL 879270457	T	C	53	75	32			T	L	F	293	296 309 274	AVG 153		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																		P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1′X120.5′X480′	1	7442	G7546 55572	879270458	T	C	53	75	32			T	L	F	293	296 309 274	AVG 153		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																		P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	

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

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

AX40021027 42

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼 材 検 査 証 明 書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818　　頁 PAGE : 22
発行年月日 DATE OF ISSUE : 2010-10-25
1001　　2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq 1 / Ceq 2 ×100	CONDITION OF SUPPLY ※7
1"X120.5'X480" 04	1	7442	G7546 / 55574	TESTED-PL 879270461	TC	I	53	75	32			TL	F	291	292 / 291 / 291	AVG 151		16	37 / 31	145 / 2	8 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	12	0	25	41	
																	P	15	37 / 33	144	7 / 6	2	2	2 / 15	2 / 0	0 / 0	12	0		40	
1"X120.5'X480" 04	1	7442	G7546 / 55574	879270462	TC	I	53	75	32			TL	F	291	292 / 291 / 291	AVG 151		16	37 / 31	145 / 2	8 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	12	0	25	41	
																	P	15	37 / 33	144	7 / 6	2	2	2 / 15	2 / 0	0 / 0	12	0		40	
1"X120.5'X480" 04	1	7442	G7547 / 55584	TESTED-PL 879270465	TC	I	53	76	31			TL	F	299	300 / 304 / 294	AVG 152		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
																	P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	

注 釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment

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

AY40022202742

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
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文書番号 DOCUMENT No. :
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新日本製鐵株式會社
Nippon Steel Corporation
鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 23
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1 ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS.	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1 SIZE ※5	2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100 ×1000	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 <1000	V ×100 <1000	TAl ×100	Ceq. 1 ×100	熱処理 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G7547 55584	879270466	TCI	53	76	31			TLF	299	300 304 294	AVG 152	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
															P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1"X120.5"X480"	1	7442	G7547 55587	TESTED-PL 879270467	TCI	54	76	29			TLF	292	290 297 288	AVG 151	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
															P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1"X120.5"X480"	1	7442	G7547 55587	879270468	TCI	54	76	29			TLF	292	290 297 288	AVG 151	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
															P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	

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※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:側膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment
温度 Temperature C: °C F: °F

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4002302742

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新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 24
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	状態 CONDITION OF SUPPLY ※7
04 1"X120.5'X480"	1	7442	G7547 55588	TESTED-PL 879270471	TC	1 54	76	33			TL	F	287	294 288 279	AVG 152	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1"X120.5'X480"	1	7442	G7547 55588	879270472	TC	1 54	76	33			TL	F	287	294 288 279	AVG 152	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1"X120.5'X480"	1	7442	G7547 55589	TESTED-PL 879270477	TC	1 53	76	32			TL	F	286	282 288 287	AVG 154	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	

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

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

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

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(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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1001　2**DM*****
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需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
04 1"X120.5'X480"	1	7442	G7547 / 55589	879270478	TC	I	53	76	32			TL	F	286	282 / 288 / 287	AVG 154
04 1"X120.5'X480"	1	7442	G7547 / 55591	TESTED-PL 879270473	TC	I	53	76	32			TL	F	282	276 / 278 / 293	AVG 151
04 1"X120.5'X480"	1	7442	G7547 / 55591	879270474	TC	I	53	76	32			TL	F	282	276 / 278 / 293	AVG 151

化学成分 CHEMICAL COMPOSITION %

Plate No.	※6	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / Ti ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al	Ceq. ×100	CONDITION OF SUPPLY ※7
879270478		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
	P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
879270473		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
	P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
879270474		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
	P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FCS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment
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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

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Nippon Steel Corporation
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本社 HEAD OFFICE : 〒100-8071 東京都千代田区丸の内二丁目6番1号 2-6-1, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
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商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-09818　頁 PAGE : 26
発行年月日 DATE OF ISSUE : 2010-10-25
1001　2**DM*****　*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ″:inch, ′:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N	Mn ×100 / TE3	P ×1000 / TE1	S ×1000	Cu ×100 / SN	Ni ×100 / CA	Cr ×100 / B	Mo ×100 / TI	Nb	V / Pcm	TAl / Sol.Al	Ceq.1 / Ceq.2	CONDITION OF SUPPLY ※7
04 1″X120.5′X480′	1	7442	G7547 55592	TESTED-PL 879270469	TC	I	53	76	31			TL	F	269	278 266 263	AVG 152		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1″X120.5′X480′	1	7442	G7547 55592	879270470	TC	I	53	76	31			TL	F	269	278 266 263	AVG 152		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1″X120.5′X480′	1	7442	G7547 55593	TESTED-PL 879270479	TC	I	53	76	33			TL	F	295	292 295 297	AVG 153		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	

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

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KIMITSU WORKS

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1001 2**DM***** *****CEW**
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寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST GL ※2	降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	納品状態 CONDITION OF SUPPLY ※7
04			G7547												292	AVG															
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															297				32	2	6		0	13	2	0					
																	P	15	38	144	9	2	2	2	2	0	14	0		40	
																			35		6			19	0	0					
04			G7547	TESTED-PL											275	AVG															
1'X120.5'X480'	1	7442	55595	879270475	TC	I	54	76	30			TL	F	289	301	154		15	38	146	9	2	2	2	2	0	13	0	32	40	
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需要家管理番号 CUSTOMER'S CONTROL No. : 2**DM***** *****CEW** E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	衝撃試験 IMPACT TEST 2V - 50F FT.LB LOCATION ORIENTATION SIZE	平均値 AVG	個々値 EACH	HBW
10 2"X121'X480"	1	14943	G7489 55119	TESTED-PL 879271009	TC1	50	75	36	TLF	257	247 257 267	AVG 147
10 2"X121'X480"	1	14943	G7489 55120	TESTED-PL 879271010	TC1	52	75	34	TLF	267	274 266 261	AVG 148
TOTAL	131	1007886										

化学成分 CHEMICAL COMPOSITION %

	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×1000	V ×100	TAl ×1000	Ceq ×100
		N ×10000	TE3	TE1 ×100		SN ×100	CA ×10000	B ×10000	TI ×100		Pcm ×100	Sol. Al ×1000	Ceq 2 ×100
879271009	16	38	143	9	2	2	2	2	0	13	0	25	40
		34	2	6		0	9	0	0				
P	16	38	142	9	2	2	2	2	0	13	0		40
		34		6			13	0	0				
879271010	16	38	143	9	2	2	2	2	0	13	0	25	40
		34	2	6		0	9	0	0				
P	16	38	142	9	2	2	2	2	0	13	0		40
		34		6			13	0	0				

HEAT TREATMENT.
PLATE & TEST SPECIMEN NORMALIZING : 910CX 10MIN.
CHARPY IMPACT TEST TEMPERATURE(S1) : - 46C
LADLE CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
PRODUCT CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
LADLE TE1 = CU+NI+CR+MO
LADLE TE3 = CR+MO
PRODUCT TE1 = CU+NI+CR+MO

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

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

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

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

AY4003802742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 39E
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION CL. ※1	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※2	BEND TEST 曲げ試験	LOCATION ORIENTATION CL. ※1	SIZE ※2	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	熱処理 HEAT TREATMENT OF SUPPLY
																	N ×1000	TE3 ×1000	TE1 ×100		SN ×100	CA ×10000	B ×10000	TI ×100		Pcm ×100	Sol. Al ×100	Ceq.2 ×100	
				CHEMICAL COMPOSITION % : "N" X10000																									
				CHEMICAL COMPOSITION % : "SN" X1000																									
				CHEMICAL COMPOSITION % : "TE3" X100																									
				LADLE TREATMENT : VACUUM DEGASSED																									
				SULPHIDE SHAPE CONTROL																									

MTR APPROVED EDMONTON EXCHANGER

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

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

AX4003902742

B

新日本製鐵株式會社
Nippon Steel Corporation

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

鋼材検査証明書
INSPECTION CERTIFICATE

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 8
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	YS YP 0.2% KSI	TS KSI	EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	IMPACT TEST 2V - 50F FT.LB AVG	EACH	HBW	※6	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100	TAl ×1000	Ceq.1 ×100	CONDITION OF SUPPLY ※7
02 0.75'X120.5'X480'	2	11158	G7491 / 55168	FROM 879270214	TC	1	54	77	30			TL	F	189	45 272 250	AVG 156		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
				TO 879270215													P	16	37 / 35	144	9 / 6	2	2	2 / 13	2 / 0	0 / 0	12	0		41	
03 1'X96.5'X480'	1	5958	G7493 / 55194	TESTED-PL 879270301	TC	1	53	75	30			TL	F	294	285 309 288	AVG 151		15	36 / 28	143 / 2	5 / 6	1	2 / 0	2 / 13	2 / 2	0 / 0	13	0	25	40	
																	P	15	36 / 34	142	6 / 6	1	2	2 / 17	2 / 0	0 / 0	12	0		39	
03 1'X96.5'X480'	2	11916	G7493 / 55194	FROM 879270302	TC	1	53	75	30			TL	F	294	285 309 288	AVG 151		15	36 / 28	143 / 2	5 / 6	1	2 / 0	2 / 13	2 / 2	0 / 0	13	0	25	40	
				TO 879270303													P	15	36 / 34	142	6 / 6	1	2	2 / 17	2 / 0	0 / 0	12	0		39	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A: 合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, N R: Normalizing Rolled
※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, SR: Stress Relieved/Post Weld Heat Treatment
LE: 横膨出 Lateral Expansion, AGS: オーステナイト粒度 Austenite Grain Size, FGS: フェライト粒度 Ferrite Grain Size, SH: 延性破面率 Shear Fracture, CF: 脆性破面率 Crystallinity Fracture.
試験温度 Temperature °C °F

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

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

15769

AY40008027742

B

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

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 9
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1 ※2	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	HEAT TREATMENT ※4	LOCATION ORIENTATION SIZE ※1 ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % ※6	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	状態 CONDITION OF SUPPLY ※7
03 1"X96.5"X480"	1	5958	G7493 55197	TESTED-PL 879270310	TC	53	75	30			TL	F280	276 282 281	AVG 151		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
															P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	
03 1"X96.5"X480"	2	11916	G7493 55197	FROM 879270311 TO 879270312	TC	53	75	30			TL	F280	276 282 281	AVG 151		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
															P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	
03 1"X96.5"X480"	1	5958	G7493 55199	TESTED-PL 879270307	TC	52	75	31			TL	F284	293 289 270	AVG 152		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
															P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	

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

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4000902742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

本社 HEAD OFFICE : 〒100-8071 東京都千代田区丸の内二丁目6番1号 2-6-1, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
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注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
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規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 10
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST GL. ※2	耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL % ※3	%	HEAT TREATMENT ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※5	2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW		C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	CONDITION ON DISPLAY ※7
																			N ×1000	TE3 ×1000	TE1 ×100		SN ×100	CA ×10000	B ×10000	TI ×100		Pcm ×100	Sol. Al ×100	Ceq.2 ×100	
03 1'X96.5'X480'	2	11916	G7493 55199	FROM 879270308 TO 879270309	TC	I	52	75	31			TL	F	284	293 289 270	AVG 152		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
																	P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	
03 1'X96.5'X480'	1	5958	G7493 55200	TESTED-PL 879270304	TC	I	53	75	31			TL	F	270	270 277 264	AVG 151		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
																	P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	
03 1'X96.5'X480'	2	11916	G7493 55200	FROM 879270305 TO 879270306	TC	I	53	75	31			TL	F	270	270 277 264	AVG 151		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
																	P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	

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

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J. Adachi

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

AX4001002742

B

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

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 11
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ″:inch, ′:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	耐力降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	CONDITION OF SUPPLY ※7
03 1′X96.5′X480′	1	5958	G7547 / 55583	TESTED-PL 879270313	TC	53	76	29			TL	F	306	317 312 288	AVG 153		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
																P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
03 1′X96.5′X480′	1	5958	G7547 / 55583	879270314	TC	53	76	29			TL	F	306	317 312 288	AVG 153		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
																P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
03 1′X96.5′X480′	1	5958	G7547 / 55586	TESTED-PL 879270315	TC	53	76	31			TL	F	297	293 303 295	AVG 154		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
																P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	

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Head of Department
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KIMITSU WORKS

AY4001102742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

本社 HEAD OFFICE : 〒100-8071 東京都千代田区丸の内二丁目6番1号 2-6-1, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8071, JAPAN
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規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 12
発行年月日 DATE OF ISSUE : 2010-10-25
1001
2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1 ※2	引張試験 TENSILE TEST 耐力降伏点 YS 降伏比 YR 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION SIZE ※1 ※2	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
03			G7547										293	AVG	15	38	146	9	2	2	2	2	0	13	0	32	40
1"X96.5"X480"	1	5958	55586	879270316	TC	53	76	31			TLF	297	303	154		32	2	6		0	13	2	0				
													295														
															P15	38	144	9	2	2	2	2	0	14	0		40
																35		6			19	0	0				
04			G7491	TESTED-PL									297	AVG	16	36	143	9	1	2	2	2	0	12	0	23	40
1"X120.5"X480"	1	7442	55154	879270405	TC	53	76	32			TLF	295	302	151		32	2	6		0	9	2	0				
													285														
															P15	37	143	8	2	2	2	2	0	11	0		40
																34		6			15	0	0				
04			G7491										297	AVG	16	36	143	9	1	2	2	2	0	12	0	23	40
1"X120.5"X480"	1	7442	55154	879270406	TC	53	76	32			TLF	295	302	151		32	2	6		0	9	2	0				
													285														
															P15	37	143	8	2	2	2	2	0	11	0		40
																34		6			15	0	0				

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温度 Temperature °C °F

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX4003202742

B

新日本製鐵株式會社
Nippon Steel Corporation
鋼 材 検 査 証 明 書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
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商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-09818　　頁 PAGE : 38
発行年月日 DATE OF ISSUE : 2010-10-25
1001　2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	%	BEND TEST	LOCATION ORIENTATION	SIZE	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW		C ×100 / ×1000	Si ×100 / N ×1000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×1000	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	供給状態 CONDITION OF SUPPLY
10 2"X121"X480"	1	14943	G7489 55119	TESTED-PL 879271009	TC	50	75	36			TL	F	257	247 257 267	AVG 147		16	38 34	143 2	9 6	2	2 0	2 9	2 0	0 0	13	0	25	40	
																P	16	38 34	142	9 6	2	2	2 13	2 0	0 0	13	0		40	
10 2"X121"X480"	1	14943	G7489 55120	TESTED-PL 879271010	TC	52	75	34			TL	F	267	274 266 261	AVG 148		16	38 34	143 2	9 6	2	2 0	2 9	2 0	0 0	13	0	25	40	
																P	16	38 34	142	9 6	2	2	2 13	2 0	0 0	13	0		40	
TOTAL	13	1007886																												

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

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

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KIMITSU WORKS

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発行年月日 DATE OF ISSUE : 2010-10-25
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CHEMICAL COMPOSITION % : 'N' X10000
CHEMICAL COMPOSITION % : 'SN' X1000
CHEMICAL COMPOSITION % : 'TE3' X100
LADLE TREATMENT : VACUUM DEGASSED
SULPHIDE SHAPE CONTROL

MTR APPROVED
EDMONTON EXCHANGER

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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Head of Department
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KIMITSU WORKS

AX4003903742

CERTIFICATE OF COMPLIANCE

edmonton exchanger
& manufacturing ltd.

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

Customer RJV GASFIELD LTD. PO 2675 Work Order C87884 Date 2011/02/10 CofC# 22457 Page 1 of 1

Item#	Description	Qty	Heat#	Required Min Thk	Recorded Min Thk	Form. Proc.
H87884-2	HEAD(S) - Semi-Elliptical 2:1 - 1.0000" NOM (0.9375"_MIN) X 24" OD (Material Spec: SA 516-70 Normalized)	9	G7492-879270442	0.9375"	0.9420"	1
		1	G7492-879270442	0.9375"	0.9420"	1
		8	58606-51936	0.9375"	0.9690"	1
		2	58606-51936	0.9375"	0.9690"	1
		6	G7547-879270316	0.9375"	0.9700"	1
		4	G7492-879270429	0.9375"	0.9580"	1
		3	319644-97331	0.9375"	0.9650"	1
		3	G5408-771910808	0.9375"	0.9570"	1
		6	G7493-879270310	0.9375"	0.9560"	1
		1	325469-01795	0.9375"	0.9510"	1
		1	G7189-970680707	0.9375"	0.9690"	1
		6	G7546-879270460	0.9375"	0.9560"	1

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

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, Addenda July 1, 2010.

Supplementary Examination - Items

FEB 18 2011

DILLINGER HÜTTE

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

A02			A09 Advice of dispatch No./ Date of dispatch	A08/ A03 Manufacturer's order/ Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049			
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204			
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474 MATERIAL TEST REPORT	152917-14.09.04	283849-001	1/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

10234

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness		B12 Width INCH		B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51956-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51956-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51958-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51958-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51958-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51959-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51959-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51959-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51960-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51960-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51960-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51961-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51961-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51961-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51962-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51962-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51962-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51963-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51963-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58601	51963-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51949-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51951-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51951-02	ITEM 1

A04 — DH Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

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

Date 14.09.04 KW 1

DILLINGER HÜTTE

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

A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049
CERTIFICAT DE RECEPTION 3.1.B NF EN 10204
INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT

A09 Advice of dispatch No./ Date of dispatch: 152917-14.09.04

A08/ Manufacturer's order/ A03 Certificate No.: 283849-001

Sheet: 2/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA, BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL, EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness		B12 Width INCH		B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51951-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51955-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51955-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58604	51955-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51941-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51941-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51941-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51943-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51945-01	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51945-02	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51945-03	ITEM 1
01	1	0,7500	x	120,50000	x	480,00000	5580	N	58605	51947-03	ITEM 1
**	35						195300				
02	1	0,8750	x	120,50000	x	480,00000	6510	N	57466	42249-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	57466	42249-02	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	57466	42249-03	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51948-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51948-03	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51950-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51950-02	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51950-03	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51954-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51954-02	ITEM 2

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

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

DILLINGER HÜTTE

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

A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049
CERTIFICAT DE RECEPTION 3.1.B NF EN 10204
INSPECTION CERTIFICATE 3.1.B BS. EN 10204 - ISO 10474 MATERIAL TEST REPORT

A09 Advice of dispatch No./ Date of dispatch: 152917-14.09.04

A08/ A03 Manufacturer's order/ Certificate No.: 283849-001

Sheet: 3/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA, BURLI A07.1 No. 40358

Final receiver: EDMONTON STEEL, EDMON A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ B03 Steel grade / Specifications:
SA516-70
ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness		B12 Width INCH		B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58604	51954-03	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58607	51929-01	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58607	51929-02	ITEM 2
02	1	0,8750	x	120,50000	x	480,00000	6510	N	58607	51931-03	ITEM 2
**	14						91140				
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51940-01	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51940-02	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51940-03	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51942-01	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51942-02	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51942-03	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51944-01	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51944-02	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58605	51944-03	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58607	51928-01	ITEM 3
03	1	1,0000	x	120,50000	x	480,00000	7440	N	58607	51928-02	ITEM 3
**	11						81840				
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51932-02	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51932-03	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51933-01	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51933-02	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51933-03	ITEM 4
04	1	1,0000	x	120,50000	x	480,00000	7440	N	58606	51934-01	ITEM 4

A04

D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

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

A01

Date 14.09.04 KW 1

DILLINGER HÜTTE

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

A02	ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049 CERTIFICAT DE RECEPTION 3.1.B NF EN 10204 INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT	A09 Advice of dispatch No./ Date of dispatch	152917-14.09.04	A08/ Manufacturer's order/ A03 Certificate No.	283849-001
				Sheet	4/...

A05 Established Inspecting body	A06 Purchaser	ARCELOR CANADA, BURLI	A07.1 No. 40358
DH	Final receiver	EDMONTON STEEL, EDMON	A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness	B12 Width INCH	B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51934-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51934-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51935-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51935-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51935-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51936-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51936-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51936-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51937-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51937-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51937-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51938-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51938-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51938-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51939-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51939-02	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58606	51939-03	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58607	51927-01	ITEM 4
04	1	1,0000 x	120,50000 x	480,00000	7440	N	58607	51927-02	ITEM 4
**	25				186000				
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51915-01	ITEM 5
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51915-02	ITEM 5
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51916-01	ITEM 5

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

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

A01

Date 14.09.04 KW 1

DILLINGER HÜTTE

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

A02 ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049
CERTIFICAT DE RECEPTION 3.1.B NF EN 10204
INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT

A09 Advice of dispatch No./ Date of dispatch: 152917-14.09.04

A08/ Manufacturer's order/ A03 Certificate No.: 283849-001

Sheet: 5/...

A05 Established inspecting body: DH

A06 Purchaser: ARCELOR CANADA, BURLI A07.1 No. 40358

Final receiver: EDMONTON STEEL, EDMON A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B01-B99 Product description

B09 Item No.	B10 Quantity	B11 Thickness	B12 Width INCH	B13 Length	B14 Mass theoretical KG	B04 Delivery condition	B08 Heat No.	B07 Rolled plate No./ Test No.	B16 Customer reference
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51916-02	ITEM 5
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51917-01	ITEM 5
05	1	1,1250 x	121,00000 x	480,00000	8405	N	58608	51917-02	ITEM 5
**	6				50430				
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51918-01	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51918-02	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51919-01	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51919-02	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51920-01	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51920-02	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51921-01	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51921-02	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51922-01	ITEM 6
06	1	1,2500 x	121,00000 x	480,00000	9339	N	58608	51922-02	ITEM 6
**	10				93390				
***	101				698100				

B04 Delivery condition / Heat treatment of plates

ITEM NO.: 01-06
N: HT: 1634 GR.F +27 -27 GR.F
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB Inspector's stamp

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

A01

Date 14.09.04 KW 1

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	6/...

A05 Established Inspecting body	A06 Purchaser		A07.1 No.	B01 Product
DH		ARCELOR CANADA,BURLI	40358	HOT ROLLED PLATES
	Final receiver	EDMONTON STEEL,EDMON	A07.2 No. E10296-J1010-LG	

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

B06 Marking

ITEM NO.: 01-06
STEEL GRADE SA516 70 MTLTV SA516 60 MTLTV
HEAT NO. / TRADEMARK / ROLLED PLATE NO.-TEST NO. / INSPECTOR'S STAMP

C10-C29 Tensile test

B09 Item No.	B08 Heat No.	B07 Rol.plate/ Test No.	B05 Reference condition	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13	A % L0=8IN	C14-C15 A % L0=2IN
01	58601	51956		K4	Q	RT		49,4	73,2		29,4	
01	58601	51958		K4	Q	RT		50,2	74,0		29,4	
01	58601	51959		K4	Q	RT		50,3	74,1		28,9	
01	58601	51960		K4	Q	RT		48,9	73,7		30,4	
01	58601	51961		K4	Q	RT		49,2	73,8		30,4	
01	58601	51962		K4	Q	RT		50,5	73,7		30,9	
01	58601	51963		K4	Q	RT		50,3	74,1		30,4	
01	58604	51949		K4	Q	RT		49,9	74,4		31,9	
01	58604	51951		K4	Q	RT		48,9	74,1		30,4	
01	58604	51955		K4	Q	RT		50,8	74,1		30,4	
01	58605	51941		K4	Q	RT		49,0	74,8		28,9	
01	58605	51943		K4	Q	RT		49,0	74,4		28,0	
01	58605	51945		K4	Q	RT		49,2	74,4		30,4	
01	58605	51947		K4	Q	RT		49,6	73,8		29,4	
02	57466	42249		K4	Q	RT		50,9	75,0		31,9	
02	58604	51948		K4	Q	RT		49,4	74,4		29,4	
02	58604	51950		K4	Q	RT		49,6	74,1		31,9	
02	58604	51954		K4	Q	RT		49,7	74,0		30,4	
02	58607	51929		K4	Q	RT		48,3	73,4		29,4	

A04

D H
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Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

A01

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

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	7/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C10-C29 Tensile test

B09 Item No.	B08 Heat No.	B07 Rol.plate/ Test No.	B05 Reference condition	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13	A % L0=8IN	C14-C15 A % L0=2IN
02	58607	51931		K4	Q	RT		48,4	74,2		29,9	
03	58605	51940		K4	Q	RT		49,0	74,1		29,4	
03	58605	51942		K4	Q	RT		47,9	74,2		30,9	
03	58605	51944		K4	Q	RT		49,2	74,1		30,4	
03	58607	51928		K4	Q	RT		47,4	73,1		30,9	
04	58606	51932		K4	Q	RT		48,0	73,2		30,9	
04	58606	51933		K4	Q	RT		48,1	73,1		31,9	
04	58606	51934		K4	Q	RT		48,4	73,2		32,4	
04	58606	51935		K4	Q	RT		47,9	72,9		30,4	
04	58606	51936		K4	Q	RT		48,7	74,0		29,4	
04	58606	51937		K4	Q	RT		47,0	74,1		30,9	
04	58606	51938		K4	Q	RT		47,0	73,7		31,4	
04	58606	51939		K4	Q	RT		48,1	74,2		30,4	
04	58607	51927		K4	Q	RT		47,9	72,8		30,9	
05	58608	51915		K4	Q	RT		49,0	73,2		32,4	
05	58608	51916		K4	Q	RT		48,9	73,1		31,9	
05	58608	51917		K4	Q	RT		49,7	73,1		30,9	
06	58608	51918		K4	QV	RT		48,4	74,4			34,5
06	58608	51919		K4	QV	RT		48,1	74,2			35,8
06	58608	51920		K4	QV	RT		47,6	73,8			36,1
06	58608	51921		K4	QV	RT		48,4	73,7			33,2
06	58608	51922		K4	QV	RT		47,3	73,4			36,6

A04 — Trademark

Z01/Z02 We 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
Der Werkssachverständige

Inspector's stamp

Date 14.09.04 KW 1

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

DILLINGER HÜTTE

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A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049		152917-14.09.04	283849-001	8/...
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT			

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA,BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL,EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C40-C49 Impact test

B09 Item No.	B08 Heat No.	B07 Rol.plate/ Test No.	B05 Reference condition	C01	C02/ C01	C03 Temp. GR.F	C41 Specimen width	C40 Type of specimen	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Average value
01	58601	51956		K4	LV	-51		CHP-V			AV	190	156	218	188
01	58601	51958		K4	LV	-51		CHP-V			AV	142	128	199	156
01	58601	51959		K4	LV	-51		CHP-V			AV	194	187	201	194
01	58601	51960		K4	LV	-51		CHP-V			AV	93	135	199	142
01	58601	51961		K4	LV	-51		CHP-V			AV	176	131	124	144
01	58601	51962		K4	LV	-51		CHP-V			AV	152	207	94	151
01	58601	51963		K4	LV	-51		CHP-V			AV	187	111	128	142
01	58604	51949		K4	LV	-51		CHP-V			AV	125	158	195	159
01	58604	51951		K4	LV	-51		CHP-V			AV	200	117	190	169
01	58604	51955		K4	LV	-51		CHP-V			AV	122	165	201	163
01	58605	51941		K4	LV	-51		CHP-V			AV	74	105	68	82
01	58605	51943		K4	LV	-51		CHP-V			AV	118	128	145	130
01	58605	51945		K4	LV	-51		CHP-V			AV	125	132	188	148
01	58605	51947		K4	LV	-51		CHP-V			AV	131	108	202	147
02	57466	42249		K4	LV	-51		CHP-V			AV	98	63	103	88
02	58604	51948		K4	LV	-51		CHP-V			AV	131	155	194	160
02	58604	51950		K4	LV	-51		CHP-V			AV	118	136	199	151
02	58604	51954		K4	LV	-51		CHP-V			AV	121	115	125	120
02	58607	51929		K4	LV	-51		CHP-V			AV	130	112	106	116
02	58607	51931		K4	LV	-51		CHP-V			AV	128	102	126	119
03	58605	51940		K4	LV	-51		CHP-V			AV	98	105	54	86
03	58605	51942		K4	LV	-51		CHP-V			AV	89	97	93	93
03	58605	51944		K4	LV	-51		CHP-V			AV	148	97	104	116
03	58607	51928		K4	LV	-51		CHP-V			AV	127	142	117	129

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

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

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	9/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA, BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL, EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C40-C49 Impact test

B09 Item No.	B08 Heat No.	B07 Rol.plate/ Test No.	B05 Reference condition	C01	C02/ C01	C03 Temp. GR.F	C41 Specimen width	C40 Type of specimen	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Average value
04	58606	51932		K4	LV	-51		CHP-V			AV	132	86	120	113
04	58606	51933		K4	LV	-51		CHP-V			AV	58	136	66	87
04	58606	51934		K4	LV	-51		CHP-V			AV	125	140	145	137
04	58606	51935		K4	LV	-51		CHP-V			AV	162	128	122	137
04	58606	51936		K4	LV	-51		CHP-V			AV	110	97	107	105
04	58606	51937		K4	LV	-51		CHP-V			AV	104	99	85	96
04	58606	51938		K4	LV	-51		CHP-V			AV	119	107	91	106
04	58606	51939		K4	LV	-51		CHP-V			AV	113	103	119	112
04	58607	51927		K4	LV	-51		CHP-V			AV	167	129	175	157
05	58608	51915		K4	LV	-51		CHP-V			AV	132	114	102	116
05	58608	51916		K4	LV	-51		CHP-V			AV	111	164	66	114
05	58608	51917		K4	LV	-51		CHP-V			AV	152	85	71	103
06	58608	51918		K4	LV	-51		CHP-V			AV	74	153	112	113
06	58608	51919		K4	LV	-51		CHP-V			AV	75	109	145	110
06	58608	51920		K4	LV	-51		CHP-V			AV	141	100	72	104
06	58608	51921		K4	LV	-51		CHP-V			AV	89	95	86	90
06	58608	51922		K4	LV	-51		CHP-V			AV	102	23	114	80

C70-C99 Chemical composition % - Heat analysis

B08 Heat	C70	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
57466	Y	0,182	0,366	1,17	0,009	0,0010	0,0057	0,038	0,019	0,029	0,039	0,080	0,000	0,000	0,000
58601	Y	0,172	0,359	1,17	0,009	0,0008	0,0054	0,042	0,011	0,015	0,026	0,044	0,000	0,000	0,000
58604	Y	0,174	0,355	1,19	0,010	0,0005	0,0047	0,033	0,021	0,030	0,032	0,047	0,000	0,000	0,000
58605	Y	0,183	0,352	1,17	0,011	0,0020	0,0051	0,045	0,017	0,023	0,027	0,049	0,001	0,000	0,000

A04

D H
Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

A01

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

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	10/...

A05 Established Inspecting body: DH

A06 Purchaser: ARCELOR CANADA, BURLI — A07.1 No. 40358

Final receiver: EDMONTON STEEL, EDMON — A07.2 No. E10296-J1010-LG

B01 Product: HOT ROLLED PLATES

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-SS
DIL-HUE-2:31.10.03

C70-C99 Chemical composition % - Heat analysis

B08 Heat	C70	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
58606	Y	0,174	0,355	1,17	0,012	0,0016	0,0046	0,039	0,026	0,013	0,025	0,057	0,001	0,000	0,000
58607	Y	0,172	0,369	1,16	0,007	0,0010	0,0056	0,035	0,021	0,031	0,031	0,034	0,000	0,000	0,000
58608	Y	0,172	0,367	1,15	0,008	0,0009	0,0058	0,030	0,012	0,004	0,017	0,027	0,000	0,000	0,000

B08 Heat	C70	TI	B
57466	Y	0,002	0,0002
58601	Y	0,001	0,0001
58604	Y	0,002	0,0002
58605	Y	0,002	0,0003
58606	Y	0,002	0,0005
58607	Y	0,002	0,0004
58608	Y	0,002	0,0002

C94 Heat analysis Carbon equivalent / Alloying restrictions

B08 Heat								
57466	FO-02=	0,40	FO-55=	0,17	FO-78=	0,11	FO-91=	6,4
58601	FO-02=	0,38	FO-55=	0,10	FO-78=	0,06	FO-91=	6,8
58604	FO-02=	0,39	FO-55=	0,13	FO-78=	0,08	FO-91=	6,8
58605	FO-02=	0,40	FO-55=	0,12	FO-78=	0,07	FO-91=	6,4
58606	FO-02=	0,39	FO-55=	0,12	FO-78=	0,07	FO-91=	6,7
58607	FO-02=	0,38	FO-55=	0,12	FO-78=	0,07	FO-91=	6,7
58608	FO-02=	0,37	FO-55=	0,06	FO-78=	0,03	FO-91=	6,7

A04

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Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

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

A01

Date 14.09.04 KW 1

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	11/...

A05 Established inspecting body	A06 Purchaser		A07.1 No.	B01 Product
DH		ARCELOR CANADA, BURLI	40358	HOT ROLLED PLATES
	Final receiver	EDMONTON STEEL, EDMON	A07.2 No. E10296-J1010-LG	

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C95 Ladle treatment

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

C70-C99 Chemical composition % - Product analysis

B08 Heat	B07 Test No.	C01	C	SI	MN	P	S	N	AL	CU	MO	NI	CR	V	NB	SN
57466	42249	K4	0,177	0,361	1,15	0,008	0,0009	0,0055	0,038	0,019	0,030	0,040	0,077	0,000	0,000	0,000
58601	51956	K4	0,164	0,363	1,17	0,009	0,0006	0,0046	0,046	0,012	0,017	0,027	0,040	0,000	0,000	0,000
58604	51951	K4	0,170	0,345	1,17	0,009	0,0003	0,0044	0,034	0,020	0,030	0,032	0,046	0,000	0,000	0,000
58604	51952	K4	0,166	0,357	1,17	0,009	0,0004	0,0048	0,036	0,016	0,024	0,030	0,046	0,000	0,000	0,000
58605	51945	K4	0,171	0,354	1,17	0,010	0,0008	0,0051	0,033	0,021	0,032	0,033	0,045	0,001	0,000	0,000
58605	51946	K4	0,175	0,345	1,17	0,009	0,0015	0,0049	0,037	0,018	0,027	0,030	0,046	0,000	0,000	0,000
58606	51936	K4	0,170	0,350	1,18	0,010	0,0018	0,0052	0,042	0,021	0,015	0,026	0,053	0,000	0,000	0,000
58607	51928	K4	0,165	0,379	1,13	0,009	0,0012	0,0052	0,036	0,024	0,018	0,027	0,045	0,000	0,000	0,001
58607	51929	K4	0,164	0,378	1,16	0,010	0,0014	0,0048	0,040	0,028	0,009	0,025	0,054	0,000	0,000	0,001
58608	51915	K4	0,166	0,363	1,13	0,007	0,0007	0,0061	0,031	0,012	0,005	0,017	0,025	0,000	0,000	0,000
58608	51922	K4	0,164	0,361	1,16	0,006	0,0006	0,0056	0,034	0,021	0,031	0,031	0,029	0,000	0,000	0,000

B08 Heat	B07 Test No.	C01	TI	B
57466	42249	K4	0,002	0,0000
58601	51956	K4	0,001	0,0001
58604	51951	K4	0,002	0,0003
58604	51952	K4	0,002	0,0002
58605	51945	K4	0,002	0,0002
58605	51946	K4	0,002	0,0003
58606	51936	K4	0,002	0,0004
58607	51928	K4	0,001	0,0004

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

Date 14.09.04 KW 1

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

DILLINGER HÜTTE

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

A02	ABNAHMEPRUEFZEUGNIS 3.1.B DIN EN 10204 - EN 10204 - DIN 50049	A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
	CERTIFICAT DE RECEPTION 3.1.B NF EN 10204			
	INSPECTION CERTIFICATE 3.1.B BS EN 10204 - ISO 10474 MATERIAL TEST REPORT	152917-14.09.04	283849-001	12/...

A05 Established Inspecting body DH	A06 Purchaser ARCELOR CANADA,BURLI	A07.1 No. 40358	B01 Product HOT ROLLED PLATES
	Final receiver EDMONTON STEEL,EDMON	A07.2 No. E10296-J1010-LG	

B02/ Steel grade SA516-70
B03 Specifications ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

C70-C99 Chemical composition % - Product analysis

B08 Heat	B07 Test No.	C01	Ti	B
58607	51929	K4	0,002	0,0003
58608	51915	K4	0,002	0,0002
58608	51922	K4	0,002	0,0003

C94 Product analysis Carbon equivalent / Alloying restrictions

B08 Heat	B07 Test No.	C01				
57466	42249	K4	FO-02=	0,39	FO-55=	0,17
58601	51956	K4	FO-02=	0,37	FO-55=	0,10
58604	51951	K4	FO-02=	0,38	FO-55=	0,13
58604	51952	K4	FO-02=	0,38	FO-55=	0,12
58605	51945	K4	FO-02=	0,39	FO-55=	0,13
58605	51946	K4	FO-02=	0,39	FO-55=	0,12
58606	51936	K4	FO-02=	0,38	FO-55=	0,12
58607	51928	K4	FO-02=	0,37	FO-55=	0,11
58607	51929	K4	FO-02=	0,37	FO-55=	0,12
58608	51915	K4	FO-02=	0,36	FO-55=	0,06
58608	51922	K4	FO-02=	0,37	FO-55=	0,11

C94 Carbon equivalent formula / Alloying restrictions

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

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

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

Date 14.09.04 KW 1

DILLINGER HÜTTE

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

A02				A09 Advice of dispatch No./ Date of dispatch	A08/ Manufacturer's order/ A03 Certificate No.	Sheet
ABNAHMEPRUEFZEUGNIS	3.1.B	DIN EN 10204 - EN 10204 - DIN 50049				
CERTIFICAT DE RECEPTION	3.1.B	NF EN 10204				
INSPECTION CERTIFICATE	3.1.B	BS EN 10204 - ISO 10474	MATERIAL TEST REPORT	152917-14.09.04	283849-001	13

A05 Established inspecting body	A06 Purchaser		A07.1 No.	B01 Product
DH		ARCELOR CANADA, BURLI	40358	HOT ROLLED PLATES
	Final receiver	EDMONTON STEEL, EDMON	A07.2 No. E10296-J1010-LG	

B02/ Steel grade: SA516-70

B03 Specifications: ASME-2A:01+A02+SA20-S5
DIL-HUE-2:31.10.03

D01 Checking of marking, surface, shape and dimensions

ITEM NO.: 01-06
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS

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

MTR APPROVED EDMONTON EXCHANGER

A04 D H Trademark

Z01/Z02 We 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
Der Werkssachverständige

AHB
Inspector's stamp

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

A01

Date 14.09.04 KW 1

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561010
契約番号 CONTRACT No. : 6-831-H1-5-0-AT02
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家管理番号 CUSTOMER'S CONTROL No. : E3001P01Q0 E07

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

証明書番号 CERTIFICATE No. : P-86490 頁 PAGE : 31
発行年月日 DATE OF ISSUE : 2006-11-29
1001 2**DM***** *****EW***

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ORIENTATION SIZE ※1 ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100 ×1000	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 ×1000	V ×100 ×1000	TAl ×100	Ceq.1 ×100	熱処理状態 CONDITION OF SUPPLY ※7
07			G7189	TESTED-PL																							
1"X96.5"X480"	1	5958	01315	970680713	TC	53	75	28			TL	F198	147	150	13	38	115	9	2	17	38	2	6	1	2	37	38	
													209	151		36	8		63	2	11	0	1					
													239	151														
														AVG														
														151														
															P13	38	115	7	2	17	36	2	6	1	2	36	38	
																33		61		2	11	1	1					
07			G7189																								
1"X96.5"X480"	1	5958	01315	970680714	TC	53	75	28			TL	F198	147	150	13	38	115	9	2	17	38	2	6	1	2	37	38	
													209	151		36	8		63	2	11	0	1					
													239	151														
														AVG														
														151														
															P13	38	115	7	2	17	36	2	6	1	2	36	38	
																33		61		2	11	1	1					

12955

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

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

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T. Adachi

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

AX4026603302

B

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新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
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君津製鐵所 KIMITSU WORKS : 〒299-1141 千葉県君津市君津1番地 1, KIMITSU, KIMITSU-CITY, CHIBA-PREF. 299-1141 JAPAN

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561010
契約番号 CONTRACT No. : 6-831-H1-5-0-AT02
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-86490　　頁 PAGE : 32
発行年月日 DATE OF ISSUE : 2006-11-29
1001　2**DM*****
需要家管理番号 CUSTOMER'S CONTROL No. : *****EW***
E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW
07 1"X96.5"X480"	1	5958	G7189 / 01316	TESTED-PL 970680711	TC	I	52	75	28			TL	F	170	174 178 157	150 150 150 AVG 150
07 1"X96.5"X480"	1	5958	G7189 / 01316	970680712	TC	I	52	75	28			TL	F	170	174 178 157	150 150 150 AVG 150

化学成分 CHEMICAL COMPOSITION %

PLATE No.	※6	C ×100 / ×1000	Si ×100 / N ×1000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / TE2 ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100 ×1000	V ×100 ×1000 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	条件 CONDITION OF SUPPLY ※7
TESTED-PL 970680711		13	38 / 36	115 / 8	9	2 / 63	17 / 2	38 / 11	2 / 0	6 / 1	1	2	37	38	
	P	13	38 / 33	115	7 / 61	2	17 / 2	36 / 11	2 / 1	6 / 1	1	2	36	38	
970680712		13	38 / 36	115 / 8	9	2 / 63	17 / 2	38 / 11	2 / 0	6 / 1	1	2	37	38	
	P	13	38 / 33	115	7 / 61	2	17 / 2	36 / 11	2 / 1	6 / 1	1	2	36	38	

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

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

AY402670330Z

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561010
契約番号 CONTRACT No. : 6-831-H1-5-0-AT02
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-86490 頁 PAGE : 33
発行年月日 DATE OF ISSUE : 2006-11-29
1001 2**DM*****
*****EW***
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
07			G7189	TESTED-PL											226	147
1"X96.5"X480"	1	5958	01321	970680701	TC	I	52	74	30			TL	F	192	209	151
															141	149 AVG
																149
07			G7189	TESTED-PL											106	144
1"X96.5"X480"	1	5958	01324	970680707	TC	I	52	75	29			TL	F	141	177	144
															140	144 AVG
																144

化学成分 CHEMICAL COMPOSITION %

※6	C ×100 / — ×1000	Si ×100 / N ×1000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / TE2 ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100 (×1000)	V ×100 (×1000) / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	供給状態 CONDITION OF SUPPLY ※7
	13	38	115	9	2	17	38	2	6	1	2	37	38	
		36	8		63	2	11	0	1					
P	13	38	115	7	2	17	36	2	6	1	2	36	38	
		33		61		2	11	1	1					
	13	38	115	9	2	17	38	2	6	1	2	37	38	
		36	8		63	2	11	0	1					
P	13	38	115	7	2	17	36	2	6	1	2	36	38	
		33		61		2	11	1	1					

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

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

AX402680330Z

B

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561010
契約番号 CONTRACT No. : 6-831-H1-5-0-AT02
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

証明書番号 CERTIFICATE No. : P-86490
頁 PAGE : 34
発行年月日 DATE OF ISSUE : 2006-11-29
1001 2**DM***** *****EW***
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL 注1	引張試験 TENSILE TEST 降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% 注3	BEND TEST 曲げ試験 注4	LOCATION ORIENTATION 注1	SIZE 注5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	注5	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	注7
07			G7189											106	144		13	38	115	9	2	17	38	2	6	1	2	37	38	
1"X96.5"X480"	1	5.958	01324	970680708	TC	52	75	29			TL	F	141	177	144			36	8	63		2	11	0	1					
														140	144															
															AVG															
															144															
																P	13	38	115	7	2	17	36	2	6	1	2	36	38	
																		33		61		2	11	1	1					
07			G7189	TESTED-PL										109	146		13	38	115	9	2	17	38	2	6	1	2	37	38	
1"X96.5"X480"	1	5.958	01325	970680709	TC	52	75	29			TL	F	106	102	149			36	8	63		2	11	0	1					
														106	149															
															AVG															
															148															
																P	13	38	115	7	2	17	36	2	6	1	2	36	38	
																		33		61		2	11	1	1					

注釈 NOTES
※1 Location Orientation 位置・方向, T:頂部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※3 RA:絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:標準寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:6.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
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温度 Temperature C: °C F: °F

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KIMITSU WORKS

AX4026903302

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新日本製鐵株式會社
Nippon Steel Corporation

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需要家管理番号 CUSTOMER'S CONTROL No. : E3001P01Q0 E07

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	※5	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	熱処理 HEAT TREATMENT ※7
07			G7189												109	146		13	38	115	9	2	17	38	2	6	1	2	37	38	
1"X96.5"X480"	1	5958	01325	970680710	TC	I	52	75	29			TL	F	106	102	149			36	8		63	2	11	0	1					
															106	149															
																AVG															
																148															
																	P	13	38	115	7	2	17	36	2	6	1	2	36	38	
																			33		61		2	11	1	1					
07			G7189	TESTED-PL											110	149		13	38	115	9	2	17	38	2	6	1	2	37	38	
1"X96.5"X480"	1	5958	01328	970680705	TC	I	52	75	33			TL	F	137	150	153			36	8		63	2	11	0	1					
															151	152															
																AVG															
																151															
																	P	13	38	115	7	2	17	36	2	6	1	2	36	38	
																			33		61		2	11	1	1					

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

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

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

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

AX4027003302

B

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

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561010
契約番号 CONTRACT No. : 6-831-H1-5-0-AT02
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-86490 頁 PAGE : 36
発行年月日 DATE OF ISSUE : 2006-11-29
1001 2**DM*****
*****EW***
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1 ※2	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ORIENTATION SIZE ※1 ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW ※6	化学成分 CHEMICAL COMPOSITION % C ×100 ≒1000	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 ≒1000	V ×100 ≒1000	TAl ×100	Ceq.1 ×100	出荷状態 CONDITION OF SUPPLY ※7
07			G7189																									
1"X96.5"X480"	1	5958	01328	970680706	TC	52	75	33			TL	F137	110	149	13	38	115	9	2	17	38	2	6	1	2	37	38	
													150	153		36	8		63	2	11	0	1					
													151	152														
														AVG														
														151														
															P13	38	115	7	2	17	36	2	6	1	2	36	38	
																33		61		2	11	1	1					
07			G7189	TESTED-PL																								
1"X96.5"X480"	1	5958	01329	970680703	TC	54	75	30			TL	F109	100	150	13	38	115	9	2	17	38	2	6	1	2	37	38	
													141	151		36	8		63	2	11	0	1					
													85	150														
														AVG														
														150														
															P13	38	115	7	2	17	36	2	6	1	2	36	38	
																33		61		2	11	1	1					

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

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

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

AY4021103302

B

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

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561010
契約番号 CONTRACT No. : 6-831-H1-5-0-AT02
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-AD5
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-86490
頁 PAGE : 37
発行年月日 DATE OF ISSUE : 2006-11-29
1001 2**DM***** *****EW***
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1 ※2	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ORIENTATION SIZE ※1 ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW ※5	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	出荷状態 CONDITION OF SUPPLY ※7
07 1"X96.5"X480"	1	5958	G7189 01329	970680704	TC	54	75	30			TLF	109	100 141 85	150 151 150 AVG 150	13	38 36	115 8	9	2 63	17 2	38 11	2 0	6 1	1	2	37	38	
															P13	38 33	115	7 61	2	17 2	36 11	2 1	6 1	1	2	36	38	
07 1"X96.5"X480"	1	5958	G7190 01339	TESTED-PL 970680717	TC	53	74	30			TLF	205	198 225 193	148 148 148 AVG 148	13	38 36	116 8	8	1 63	17 2	38 10	2 1	6 1	1	2	37	38	
															P13	38 35	114	7 60	1	16 2	36 11	2 1	6 1	1	2	36	37	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR:Controlled Rolled, NIC:NIC Process/TMC Process, CLC:CLC Process/TMC Process, AR:As Rolled, TMR:TMR Process/TMC Process, NR:Normalizing Rolled
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温度 Temperature °C °F

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T. Adachi
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GROUP MANAGER
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX4027203302

8

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561010
契約番号 CONTRACT No. : 6-831-H1-5-0-AT02
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-86490 頁 PAGE : 38
発行年月日 DATE OF ISSUE : 2006-11-29
1001 2**DM*****
*****EW***
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	LOCATION ORIENTATION ※1	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
07 1"X96.5"X480"	1	5958	G7190 01339	970680718	TC	53	74	30		TL F	205	198 225 193	148 148 148 AVG 148
07 1"X96.5"X480"	1	5958	G7190 01341	TESTED-PL 970680715	TC	52	74	28		TL F	207	141 232 247	149 150 149 AVG 149

化学成分 CHEMICAL COMPOSITION %

	C ×100 (×1000) / ×1000	Si ×100 / N ×1000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / TE2 ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100 (×1000)	V ×100 (×1000) / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	供給状態 CONDITION OF SUPPLY ※7
	13	38 36	116 8	8	1 63	17 2	38 10	2 1	6 1	1	2	37	38	
P	13	38 35	114	7 60	1	16 2	36 11	2 1	6 1	1	2	36	37	
	13	38 36	116 8	8	1 63	17 2	38 10	2 1	6 1	1	2	37	38	
P	13	38 35	114	7 60	1	16 2	36 11	2 1	6 1	1	2	36	37	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A: 合格 Acceptable, ※5 F: 試験寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis, 温度 Temperature □□□C: □□□ °C / □□□F: □□□ °F
※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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T. Adachi
君津製鐵所厚板管理グループリーダー
GROUP MANAGER
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX4027303302

B

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新日本製鐵株式會社
Nippon Steel Corporation

鋼 材 検 査 証 明 書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38561010
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商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E04-A05
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-86490　頁 PAGE : 47E
発行年月日 DATE OF ISSUE : 2006-11-29
1001　2**DM*****
需要家管理番号 CUSTOMER'S CONTROL No. : *****EW***
E3001P01Q0 E07

寸法 DIMENSION MM	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力/降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT LB 平均値 AVG	個々値 EACH	HBW
10			G7189	TESTED-PL											262	143
1.625"X121"X480"	1	12140	04261	970681007	TC	1	49	73	34			TL	F	236	227	143
															218	142
																AVG
																143
TOTAL	121	584972														

化学成分 CHEMICAL COMPOSITION %

※6	C ×100 / ×1000	Si ×100 / N ×10000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / TE2 ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×1000 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	供給条件 CONDITION OF SUPPLY ※7
	13	38	115	9	2	17	38	2	6	1	2	37	38	
		36	8		63	2	11	0	1					
P	14	38	114	9	2	17	36	2	6	1	2	34	39	
		38		61		2	13	1	1					

LADLE TREATMENT : VACUUM DEGASSED
HEAT TREATMENT.
PLATE & TEST SPECIMEN NORMALIZING : 910CX 10MIN.
CHARPY IMPACT TEST TEMPERATURE(S)(1): -46C
LADLE CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
PRODUCT CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
LADLE TE2 = CU+NI+CR+MO
LADLE TE3 = CR+MO
PRODUCT TE1 = CU+NI+CR+MO
CHEMICAL COMPOSITION % : "N" X10000
CHEMICAL COMPOSITION % : "SN" X1000
CHEMICAL COMPOSITION % : "TE3" X100

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

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

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

MTR APPROVED EDMONTON EXCHANGER

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

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: 296865-12.04.08

A08/ A03 Manufacturer's order/ Certificate No.: 333390-002

Sheet: 1/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON — A07.1 No. E10473-J1010-LG

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

B01 Product: HOT ROLLED PLATES

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

14346

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	1,0000	x	96,50000	x	480,00000	5959	N	319152	84950-01	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319152	84950-02	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319152	84952-01	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319152	84954-02	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319152	84957-02	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319154	84931-01	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319154	84931-02	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319154	84932-01	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319154	84933-02	1
01	1	1,0000	x	96,50000	x	480,00000	5959	N	319154	84934-02	1
**	10						59590				
02	1	1,0000	x	120,50000	x	480,00000	7440	N	49076	99694-01	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319154	84928-01	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319154	84928-02	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319154	84929-01	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319644	97328-01	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319644	97328-02	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319644	97328-03	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319644	97329-01	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319644	97329-02	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319644	97329-03	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319644	97330-01	2
02	1	1,0000	x	120,50000	x	480,00000	7440	N	319644	97330-03	2

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

AHB Inspector's stamp

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

A01

Date 14.04.08 KW 1

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 296865-12.04.08

A08/ Manufacturer's order/ A03 Certificate No.: 333390-002

Sheet: 2/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON — A07.1 No. E10473-J1010-LG

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

B01 Product: HOT ROLLED PLATES

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

B01-B99 Description of the product

B14 Item No.	B08 Number of pieces	B09 Thickness	B10 Width INCH	B11 Length	B12 Theoretical mass KG	B04 Product delivery condition	B07.2 Heat No.	B07.1 Rolled plate No./ Test No.	A09 Purchaser article number
02	1	1,0000 x	120,50000 x	480,00000	7440	N	319644	97331-01	2
02	1	1,0000 x	120,50000 x	480,00000	7440	N	319644	97331-02	2
02	1	1,0000 x	120,50000 x	480,00000	7440	N	319644	97331-03	2
**	15				111600				
03	1	1,3750 x	97,00000 x	480,00000	8235	N	319646	97323-01	3
03	1	1,3750 x	97,00000 x	480,00000	8235	N	319646	97323-02	3
**	2				16470				
***	27				187660				

B04 Product delivery condition

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

B06 Marking of the product

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

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

AHB Inspector's stamp

Date 14.04.08 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 296865-12.04.08

A08/ A03 Manufacturer's order/ Certificate No.: 333390-002 Sheet: 3/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. E10473-J1010-LG
Final receiver: EDMONTON STEEL, EDMON A07.2 No.

B01 Product: HOT ROLLED PLATES

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

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13	A % L0=8IN	C14-C15 A % L0=2IN
01	319152	84950		K1	Q	RT		48,9	74,2		28,9	
01	319152	84952		K1	Q	RT		49,7	74,4		30,4	
01	319152	84954		K1	Q	RT		50,3	74,4		29,9	
01	319152	84957		K1	Q	RT		50,3	74,8		28,9	
01	319154	84931		K1	Q	RT		50,0	74,2		28,9	
01	319154	84932		K1	Q	RT		50,0	73,5		29,4	
01	319154	84933		K1	Q	RT		48,3	73,5		32,9	
01	319154	84934		K1	Q	RT		48,4	73,4		30,4	
02	49076	99694		K1	Q	RT		47,4	71,9		32,4	
02	319154	84928		K1	Q	RT		50,8	75,0		29,9	
02	319154	84929		K1	Q	RT		50,6	75,5		28,4	
02	319644	97328		K1	Q	RT		50,3	74,1		31,4	
02	319644	97329		K1	Q	RT		49,6	74,1		29,4	
02	319644	97330		K1	Q	RT		50,0	73,7		31,4	
02	319644	97331		K1	Q	RT		49,6	74,4		34,4	
03	319646	97323		K1	QV	RT		50,0	76,6			33,9

C30-C39 Hardness test

B14 Item. No.	B07.2. Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C35	C31 Individual values			C32 Mean value
01	319152	84950		K1	O	RT	HBW 10/3000	HB	148	147	147	147
01	319152	84952		K1	O	RT	HBW 10/3000	HB	147	145	148	147
01	319152	84954		K1	O	RT	HBW 10/3000	HB	146	148	147	147
01	319152	84957		K1	O	RT	HBW 10/3000	HB	147	148	147	147

A04 Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp

Date 14.04.08 KW 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 296865-12.04.08

A08/ A03 Manufacturer's order/ Certificate No.: 333390-002

Sheet: 4/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON — A07.1 No. E10473-J1010-LG

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70

B03 Any suppl. requirements ASME-2A:07
DIL-HUE-2:R24-2007-11-20

C30-C39 Hardness test

B14 Item. No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C35	C31 Individual values			C32 Mean value
01	319154	84931		K1	O	RT	HBW 10/3000	HB	147	145	147	146
01	319154	84932		K1	O	RT	HBW 10/3000	HB	146	145	145	145
01	319154	84933		K1	O	RT	HBW 10/3000	HB	149	145	144	146
01	319154	84934		K1	O	RT	HBW 10/3000	HB	146	146	147	146
02	49076	99694		K1	O	RT	HBW 10/3000	HB	141	141	142	141
02	319154	84928		K1	O	RT	HBW 10/3000	HB	146	144	141	144
02	319154	84929		K1	O	RT	HBW 10/3000	HB	148	144	146	146
02	319644	97328		K1	O	RT	HBW 10/3000	HB	142	142	143	142
02	319644	97329		K1	O	RT	HBW 10/3000	HB	143	144	144	144
02	319644	97330		K1	O	RT	HBW 10/3000	HB	142	144	144	143
02	319644	97331		K1	O	RT	HBW 10/3000	HB	145	143	144	144
03	319646	97323		K1	O	RT	HBW 10/3000	HB	148	147	147	147

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Mean value
01	319152	84950		K1	LV	-51		CHP-V			AV	83	98	93	91
01	319152	84952		K1	LV	-51		CHP-V			AV	127	97	83	102
01	319152	84954		K1	LV	-51		CHP-V			AV	94	87	117	99
01	319152	84957		K1	LV	-51		CHP-V			AV	108	51	131	97
01	319154	84931		K1	LV	-51		CHP-V			AV	111	96	94	100
01	319154	84932		K1	LV	-51		CHP-V			AV	96	113	99	103
01	319154	84933		K1	LV	-51		CHP-V			AV	137	104	76	106
01	319154	84934		K1	LV	-51		CHP-V			AV	83	132	97	104
02	49076	99694		K1	LV	-51		CHP-V			AV	136	139	154	143

A04 Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp

Date 14.04.08 KW. 1

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

DILLINGER HÜTTE

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

A10 Advice of dispatch No./ Date of dispatch: 296865-12.04.08

A08/ A03 Manufacturer's order/ Certificate No.: 333390-002 Sheet: 5/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. E10473-J1010-LG

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

B01 Product: HOT ROLLED PLATES

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

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Mean value
02	319154	84928		K1	LV	-51		CHP-V			AV	136	152	109	132
02	319154	84929		K1	LV	-51		CHP-V			AV	92	122	116	110
02	319644	97328		K1	LV	-51		CHP-V			AV	122	113	126	120
02	319644	97329		K1	LV	-51		CHP-V			AV	122	117	137	125
02	319644	97330		K1	LV	-51		CHP-V			AV	100	104	117	107
02	319644	97331		K1	LV	-51		CHP-V			AV	142	120	150	137
03	319646	97323		K1	LV	-51		CHP-V			AV	100	103	113	105

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
49076	Y	0,177	0,380	1,14	0,007	0,0007	0,0058	0,017	0,015	0,047	0,030	0,000	0,000	0,001	0,001
319152	Y	0,175	0,376	1,19	0,009	0,0013	0,0063	0,031	0,009	0,025	0,027	0,000	0,000	0,002	0,002
319154	Y	0,169	0,350	1,18	0,010	0,0019	0,0067	0,018	0,013	0,027	0,036	0,001	0,000	0,001	0,002
319644	Y	0,181	0,342	1,18	0,010	0,0009	0,0058	0,034	0,011	0,040	0,064	0,000	0,000	0,001	0,002
319646	Y	0,188	0,348	1,17	0,008	0,0006	0,0061	0,054	0,007	0,066	0,023	0,000	0,000	0,001	0,002

B07.2 Heat	C70	B	CA	AL-T
49076	Y	0,0001	0,0018	0,037
319152	Y	0,0002	0,0025	0,039
319154	Y	0,0002	0,0019	0,035
319644	Y	0,0002	0,0021	0,040
319646	Y	0,0002	0,0019	0,036

A04 D H Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

AHB Inspector's stamp

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

A01

Date 14.04.08 KW 1

DILLINGER HÜTTE

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

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

A10 Advice of dispatch No./ Date of dispatch: 296865-12.04.08

A08/ A03 Manufacturer's order/ Certificate No.: 333390-002 Sheet: 6/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. E10473-J1010-LG
Final receiver: EDMONTON STEEL, EDMON A07.2 No.

B01 Product: HOT ROLLED PLATES

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

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat								
49076	FO-02=	0,38	FO-55=	0,11	FO-78=	0,05	FO-91=	6,4
319152	FO-02=	0,38	FO-55=	0,09	FO-78=	0,04	FO-91=	6,8
319154	FO-02=	0,38	FO-55=	0,09	FO-78=	0,05	FO-91=	7,0
319644	FO-02=	0,40	FO-55=	0,15	FO-78=	0,08	FO-91=	6,5
319646	FO-02=	0,40	FO-55=	0,15	FO-78=	0,03	FO-91=	6,2

C95 Ladle treatment

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

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
319152	84954	K1	0,174	0,371	1,17	0,009	0,0013	0,0060	0,029	0,009	0,025	0,026	0,001	0,000	0,002	0,002
319154	84933	K1	0,170	0,353	1,17	0,007	0,0013	0,0071	0,017	0,012	0,029	0,035	0,001	0,000	0,000	0,002
319644	97331	K1	0,177	0,348	1,17	0,010	0,0010	0,0057	0,033	0,012	0,041	0,085	0,001	0,000	0,002	0,002
319646	97323	K1	0,186	0,355	1,16	0,008	0,0010	0,0056	0,053	0,006	0,065	0,023	0,000	0,000	0,000	0,002

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
319152	84954	K1	0,0000	0,0021	0,037
319154	84933	K1	0,0000	0,0023	0,034
319644	97331	K1	0,0001	0,0024	0,038
319646	97323	K1	0,0000	0,0019	0,036

A04 D H Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

A H B Inspector's stamp

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

A01

Date 14.04.08 KW 1

DILLINGER HÜTTE

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A02 INSPECTION CERTIFICATE 3.1 AS PER EN 10204:2004 INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991 MATERIAL TEST REPORT (MTR)	A10 Advice of dispatch No./ Date of dispatch 296865-12.04.08	A08/ Manufacturer's order/ A03 Certificate No. Sheet 333390-002 7
A05 Established Inspecting body DH	A06 Purchaser EDMONTON STEEL, EDMON A07.1 No. E10473-J1010-LG Final receiver EDMONTON STEEL, EDMON A07.2 No.	B01 Product HOT ROLLED PLATES
B02/ Steel design. SA516-70 B03 Any suppl. requirements ASME-2A:07 DIL-HUE-2:R24-2007-11-20		

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01				
319152	84954	K1	FO-02=	0,38	FO-55=	0,09
319154	84933	K1	FO-02=	0,38	FO-55=	0,09
319644	97331	K1	FO-02=	0,40	FO-55=	0,17
319646	97323	K1	FO-02=	0,39	FO-55=	0,15

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

MTR APPROVED EDMONTON EXCHANGER

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 D H Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

AHB Inspector's stamp

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

A01

Date 14.04.08 KW 1

DILLINGER HÜTTE

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

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

A10 Advice of dispatch No./ Date of dispatch: 312133-20.08.08

A08/ A03 Manufacturer's order/ Certificate No.: 341027-001 Sheet 1/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. E10494-J1010-LG
Final receiver: EDMONTON STEEL, EDMON A07.2 No.

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5
B03 Any suppl. requirements ASME-2A:04
DIL-HUE-2:R24-2007-11-20

14639

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	1,0000 x	96,50000 x	480,00000	5959	N	325466	01777-01	
01	1	1,0000 x	96,50000 x	480,00000	5959	N	325466	01781-01	
**	2				11918				
02	1	1,0000 x	120,50000 x	480,00000	7440	N	325469	01782-01	
02	1	1,0000 x	120,50000 x	480,00000	7440	N	325469	01782-02	
02	1	1,0000 x	120,50000 x	480,00000	7440	N	325469	01795-01	
02	1	1,0000 x	120,50000 x	480,00000	7440	N	325469	01795-02	
02	1	1,0000 x	120,50000 x	480,00000	7440	N	325469	01795-03	
02	1	1,0000 x	120,50000 x	480,00000	7440	N	325469	01796-01	
02	1	1,0000 x	120,50000 x	480,00000	7440	N	325469	01796-02	
02	1	1,0000 x	120,50000 x	480,00000	7440	N	325469	01796-03	
**	8				59520				
***	10				71438				

B04 Product delivery condition

ITEM NO.: 01-02
N: HT: 1670 GR.F +36 -27 GR.F
SOAKING TIME TO ATTAIN THE TARGET TEMPERATURE OVER THE WHOLE SECTION: 1-1,75 MIN/MM (25-45 MIN/INCH)
COOLING IN STILL AIR

B06 Marking of the product

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

A04 Manufacturer's mark: DH

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp: AHB

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

A01

Date 21.08.08 KW 1

DILLINGER HÜTTE

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

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

A10 Advice of dispatch No./ Date of dispatch: 312133-20.08.08

A08/ Manufacturer's order/ A03 Certificate No.: 341027-001

Sheet: 2/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON — A07.1 No. E10494-J1010-LG

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-2A:04
DIL-HUE-2:R24-2007-11-20

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10	C11 KSI RP02	C12 RM	C13 A % L0=8IN	C14-C15
01	325466	01777		K1	Q	RT		46,1	73,1	28,9	
01	325466	01781		K1	Q	RT		48,1	73,4	29,9	
02	325469	01782		K1	Q	RT		48,6	73,8	28,0	
02	325469	01795		K1	Q	RT		49,2	73,8	28,9	
02	325469	01796		K1	Q	RT		47,3	73,4	30,4	

C30-C39 Hardness test

B14 Item. No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C33 Testing method	C35	C31 Individual values			C32 Mean value
01	325466	01777		K1	O	RT	HBW 10/3000	HB	155	153	148	152
01	325466	01781		K1	O	RT	HBW 10/3000	HB	155	148	148	150
02	325469	01782		K1	O	RT	HBW 10/3000	HB	147	148	146	147
02	325469	01795		K1	O	RT	HBW 10/3000	HB	150	150	149	150
02	325469	01796		K1	O	RT	HBW 10/3000	HB	145	146	144	145

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Mean value
01	325466	01777		K1	LV	-51		CHP-V			AV	94	83	77	85
01	325466	01781		K1	LV	-51		CHP-V			AV	124	99	111	111
02	325469	01782		K1	LV	-51		CHP-V			AV	90	91	114	98
02	325469	01795		K1	LV	-51		CHP-V			AV	67	103	105	92
02	325469	01796		K1	LV	-51		CHP-V			AV	106	108	109	108

A04 D H Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

AHB Inspector's stamp

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

A01

Date 21.08.08 KW 1

DILLINGER HÜTTE

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

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

A10 Advice of dispatch No./ Date of dispatch: 312133-20.08.08

A08/ A03 Manufacturer's order/ Certificate No.: 341027-001 Sheet: 3/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON A07.1 No. E10494-J1010-LG

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-2A:04
DIL-HUE-2:R24-2007-11-20

C70-C99 Chemical composition % - Heat analysis

B07.2 Heat	C70	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
325466	Y	0,177	0,365	1,17	0,009	0,0019	0,0051	0,040	0,010	0,049	0,029	0,004	0,000	0,001	0,001
325469	Y	0,183	0,360	1,20	0,007	0,0017	0,0056	0,043	0,010	0,039	0,034	0,002	0,000	0,002	0,002

B07.2 Heat	C70	B	CA	AL-T
325466	Y	0,0001	0,0027	0,037
325469	Y	0,0001	0,0027	0,036

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat								
325466	FO-02=	0,39	FO-55=	0,13	FO-78=	0,04	FO-91=	6,6
325469	FO-02=	0,40	FO-55=	0,13	FO-78=	0,04	FO-91=	6,6

C95 Ladle treatment

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

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
325466	01777	K1	0,177	0,371	1,16	0,009	0,0023	0,0057	0,040	0,010	0,048	0,029	0,004	0,000	0,001	0,001
325469	01796	K1	0,178	0,369	1,18	0,007	0,0016	0,0053	0,042	0,010	0,036	0,034	0,002	0,000	0,000	0,001

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
325466	01777	K1	0,0001	0,0025	0,036
325469	01796	K1	0,0000	0,0021	0,036

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

AHB Inspector's stamp

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

A01

Date 21.08.08 KW 1

DILLINGER HÜTTE

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

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

A10 Advice of dispatch No./ Date of dispatch: 312133-20.08.08

A08/ Manufacturer's order/ A03 Certificate No.: 341027-001

Sheet: 4

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON — A07.1 No. E10494-J1010-LG

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-2A:04
DIL-HUE-2:R24-2007-11-20

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01				
325466	01777	K1	FO-02=	0,38	FO-55=	0,13
325469	01796	K1	FO-02=	0,39	FO-55=	0,12

C94 Carbon equivalent formula / Alloying restrictions

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

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

ITEM NO.: 01-02
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS

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

MTR APPROVED EDMONTON EXCHANGER

A04 Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. MUELLER
Test House Manager

Inspector's stamp

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

A01

Date 21.08.08 KW 1

B、

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501030
契約番号 CONTRACT No. : 0-831-H1-5-8-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

証明書番号 CERTIFICATE No. : P-08348 頁 PAGE : 56
発行年月日 DATE OF ISSUE : 2010-08-23
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION	引張試験 TENSILE TEST GL	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	%	BEND TEST	LOCATION ORIENTATION	SIZE	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	T.Al	Ceq.1	出荷状態 CONDITION OF SUPPLY
07 0.75'X120.5'X480'	2	11158	G5410 38555	FROM 771910714 TO 771910715	TC	1	54	76	30			TL	F	282	277 288 280	AVG 153	16	37 35	145 2	6 5	1	1 0	2 11	2 0	0 0	13	0	25	41	
																	P16	37 36	144	5 5	1	1	2 20	2 0	0 0	12	0		41	
08 1'X120.5'X480'	1	7442	G5408 38515	TESTED-PL 771910801	TC	1	52	75	34			TL	F	266	268 280 250	AVG 153	16	37 31	144 3	9 7	1	2 0	2 17	3 2	0 0	12	0	25	41	
																	P15	38 34	146	9 8	1	2	3 18	3 0	0 0	13	0		40	
08 1'X120.5'X480'	1	7442	G5408 38515	771910802	TC	1	52	75	34			TL	F	266	268 280 250	AVG 153	16	37 31	144 3	9 7	1	2 0	2 17	3 2	0 0	12	0	25	41	
																	P15	38 34	146	9 8	1	2	3 18	3 0	0 0	13	0		40	

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

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

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

15596

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

A2409120575Z

B-

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501030
契約番号 CONTRACT No. : 0-831-H1-5-8-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-08348 頁 PAGE : 57
発行年月日 DATE OF ISSUE : 2010-08-23
1001 2**DM***** *****CEW** E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力 YS 0.2% KSI	引張強さ TS KSI	伸び EL % ※2	% ※3	衝撃試験 LOCATION ORIENTATION SIZE	IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW		C ×100	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1	S ×1000	Cu ×100 / SN	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / Ti ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	供給状態 CONDITION OF SUPPLY ※7
08 1"X120.5"X480"	1	7442	G5408 / 38520	TESTED-PL 771910805	T C I	52	75	34		T L F	251	262 234 256	AVG 152		16	37 / 31	144 / 3	9 / 7	1	2 / 0	2 / 17	3 / 2	0 / 0	12	0	25	41	
														P	15	38 / 34	146	9 / 8	1	2	3 / 18	3 / 0	0 / 0	13	0		40	
08 1"X120.5"X480"	1	7442	G5408 / 38520	771910806	T C I	52	75	34		T L F	251	262 234 256	AVG 152		16	37 / 31	144 / 3	9 / 7	1	2 / 0	2 / 17	3 / 2	0 / 0	12	0	25	41	
														P	15	38 / 34	146	9 / 8	1	2	3 / 18	3 / 0	0 / 0	13	0		40	
08 1"X120.5"X480"	1	7442	G5408 / 38525	TESTED-PL 771910807	T C I	54	75	33		T L F	270	282 262 266	AVG 153		16	37 / 31	144 / 3	9 / 7	1	2 / 0	2 / 17	3 / 2	0 / 0	12	0	25	41	
														P	15	38 / 34	146	9 / 8	1	2	3 / 18	3 / 0	0 / 0	13	0		40	

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

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

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

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

B

注文者 SHIPPER	HANWA CO., LTD.
注文書照合番号 REFERENCE No.	228-38501030
契約番号 CONTRACT No.	0-831-H1-5-8-AT01
商品名 COMMODITY	HOT ROLLED STEEL PLATES
規格 SPECIFICATION	ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No.	

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

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

証明書番号 CERTIFICATE No. : P-08348 頁 PAGE : 58
発行年月日 DATE OF ISSUE : 2010-08-23
1001 2**DM*****
需要家管理番号 CUSTOMER'S CONTROL No. : *****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	C ×100 / N ×10000	Si ×100	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×1000	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×1000	Nb ×1000	V ×1000 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq ×100 / Ceq2 ×100	CONDITION OF SUPPLY ※7
08 1"X120.5"X480"	1	7442	G5408 38525	771910808	TCI	54	75	33		TL	F	270	282 262 266	AVG 153	16	37 31	144 3	9 7	1	2 0	2 17	3 2	0 0	12	0	25	41	
															P15	38 34	146	9 8	1	2	3 18	3 0	0 0	13	0		40	
08 1"X120.5"X480"	1	7442	G5408 38529	TESTED-PL 771910803	TCI	52	75	32		TL	F	274	271 288 263	AVG 152	16	37 31	144 3	9 7	1	2 0	2 17	3 2	0 0	12	0	25	41	
															P15	38 34	146	9 8	1	2	3 18	3 0	0 0	13	0		40	
08 1"X120.5"X480"	1	7442	G5408 38529	771910804	TCI	52	75	32		TL	F	274	271 288 263	AVG 152	16	37 31	144 3	9 7	1	2 0	2 17	3 2	0 0	12	0	25	41	
															P15	38 34	146	9 8	1	2	3 18	3 0	0 0	13	0		40	

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

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

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

B'

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501030
契約番号 CONTRACT No. : 0-831-H1-5-8-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C- OMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-08348　頁 PAGE : 59
発行年月日 DATE OF ISSUE : 2010-08-23
1001　2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL % ※2	% ※3	LOCATION ORIENTATION SIZE ※1 ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / Ti ×100	Nb ×100 (<1000)	V ×100 (<1000) / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq 1 ×100 / Ceq 2 ×100	製造条件 CONDITION OF SUPPLY ※7
08 1"X120.5'X480"	1	7442	G5409 38530	TESTED-PL 771910819	TC	53	75	32		TLF	244	242 251 238	AVG 153		15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13		0	25	40	
														P	16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	
08 1"X120.5'X480"	1	7442	G5409 38530	771910820	TC	53	75	32		TLF	244	242 251 238	AVG 153		15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13		0	25	40	
														P	16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	
08 1"X120.5'X480"	1	7442	G5409 38534	TESTED-PL 771910813	TC	52	75	33		TLF	229	177 259 252	AVG 152		15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13		0	25	40	
														P	16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	

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

AX4052505752

B-

新日本製鐵株式會社
Nippon Steel Corporation

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

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501030
契約番号 CONTRACT No. : 0-831-H1-5-8-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-08348 頁 PAGE : 60
発行年月日 DATE OF ISSUE : 2010-08-23
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS	伸び EL %	IMPACT LOCATION ORIENTATION	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
08 1"X120.5"X480"	1	7442	G5409 38534	771910814	TCI	52	75	33	TLF	229	177 259 252	AVG 152
08 1"X120.5"X480"	1	7442	G5409 38536	TESTED-PL 771910809	TCI	52	76	31	TLF	274	272 294 257	AVG 152
08 1"X120.5"X480"	1	7442	G5409 38536	771910810	TCI	52	76	31	TLF	274	272 294 257	AVG 152

化学成分 CHEMICAL COMPOSITION %

Plate No.		C ×100 / –	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol Al ×1000	Ceq 1 ×100 / Ceq 2 ×100
771910814		15	39	144	6	1	2	2	2	0	13	0	25	40
			31	2	6		0	12	0	0				
	P	16	39	145	6	1	2	2	2	0	13	0		41
			30		6			18	0	0				
771910809		15	39	144	6	1	2	2	2	0	13	0	25	40
			31	2	6		0	12	0	0				
	P	16	39	145	6	1	2	2	2	0	13	0		41
			30		6			18	0	0				
771910810		15	39	144	6	1	2	2	2	0	13	0	25	40
			31	2	6		0	12	0	0				
	P	16	39	145	6	1	2	2	2	0	13	0		41
			30		6			18	0	0				

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

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

AY405160575

B•

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501030
契約番号 CONTRACT No. : 0-831-H1-5-8-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-08348 頁 PAGE : 61
発行年月日 DATE OF ISSUE : 2010-08-23

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. : 1001 2**DM***** *****CEW** E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1 / GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	LOCATION ORIENTATION ※1 / SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1	S ×1000	Cu ×100 / SN	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100	TAl ×1000	Ceq 1 ×100	CONDITION OF SUPPLY ※7
1"X120.5"X480" 08	1	7442	G5409 38538	TESTED-PL 771910811	TC	52	75	33		TL F	277	270 280 282	AVG 151	15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13	0	25	40	
														P 16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	
1"X120.5"X480" 08	1	7442	G5409 38538	771910812	TC	52	75	33		TL F	277	270 280 282	AVG 151	15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13	0	25	40	
														P 16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	
1"X120.5"X480" 08	1	7442	G5409 38542	TESTED-PL 771910815	TC	54	75	32		TL F	263	249 259 280	AVG 153	15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13	0	25	40	
														P 16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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温度 Temperature °C °F

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX405170573Z

B°

注文者 SHIPPER : HANWA CO., LTD.
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需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	耐力/降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL % ※2	LOCATION ORIENTATION ※1	SIZES ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb	V / Pcm	TAl / Sol. Al	Ceq 1 / Ceq 2 ×100	条件 CONDITION OF SUPPLY ※7
08 1"X120.5"X480"	1	7442	G5409 38542	771910816	TC	54	75	32	TL	F	263	249 259 280	AVG 153		15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13	0	25	40	
														P	16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	
08 1"X120.5"X480"	1	7442	G5409 38544	TESTED-PL 771910817	TC	53	75	34	TL	F	264	253 278 261	AVG 152		15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13	0	25	40	
														P	16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	
08 1"X120.5"X480"	1	7442	G5409 38544	771910818	TC	53	75	34	TL	F	264	253 278 261	AVG 152		15	39 31	144 2	6 6	1	2 0	2 12	2 0	0 0	13	0	25	40	
														P	16	39 30	145	6 6	1	2	2 18	2 0	0 0	13	0		41	

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

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

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

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

AY405180S752

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501030
契約番号 CONTRACT No. : 0-831-H1-5-8-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. : 1001 2**DM***** *****CEW** E3001P07Q0 E07

証明書番号 CERTIFICATE No. : P-08348 頁 PAGE : 76E
発行年月日 DATE OF ISSUE : 2010-08-23

寸法 DIMENSION mm, ″:inch, ′:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST: GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	※3 %	BEND TEST 曲げ試験 ※4	衝撃試験 IMPACT TEST: LOCATION ORIENTATION ※1	SIZE ※5	2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×1000	V ×1000	TAl ×1000	Ceq 1 ×100	CONDITION OF SUPPLY ※7
																			N ×10000	TE3 ×1000	TE1 ×100		SN ×1000	CA ×10000	B ×10000	Ti ×100		Pcm ×100	Sol. Al ×1000	Ceq 2 ×100	

HEAT TREATMENT.
PLATE & TEST SPECIMEN NORMALIZING : 910CX 10MIN.
CHARPY IMPACT TEST TEMPERATURE(SI): -46C
LADLE CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
PRODUCT CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
LADLE TE1 = CU+NI+CR+MO
LADLE TE3 = CR+MO
PRODUCT TE1 = CU+NI+CR+MO
CHEMICAL COMPOSITION % : 'N' X10000
CHEMICAL COMPOSITION % : 'SN' X1000
CHEMICAL COMPOSITION % : 'TE3' X100
LADLE TREATMENT : VACUUM DEGASSED
SULPHIDE SHAPE CONTROL

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

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

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

MTR APPROVED EDMONTON EXCHANGER

AX4022800575

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 4
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM*****
需要家管理番号 CUSTOMER'S CONTROL No. : *****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ʹ:inch, ʹ:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
01 0.375ʹ X120.5ʹ X480ʹ	1	2790	G7546 55575	879270122	TC	I	57	77	27			TL	7	210	202 222 205	AVG 157
04 1ʹ X120.5ʹ X480ʹ	1	7442	G7492 55171	TESTED-PL 879270423	TC	I	53	76	32			TL	F	273	267 265 286	AVG 154
04 1ʹ X120.5ʹ X480ʹ	1	7442	G7492 55171	879270424	TC	I	53	76	32			TL	F	273	267 265 286	AVG 154

化学成分 CHEMICAL COMPOSITION %

Plate	※6	C ×100	Si ×100 / N ×1000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100	V ×100 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	供給状態 CONDITION OF SUPPLY ※7
879270122		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
	P	15	37 32	146	8 6	2	2	2 15	2 0	0 0	13	0		40	
879270423		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
879270424		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	

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

温度 Temperature °C °F

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

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

15758

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

AY4021603542

B

注文者 SHIPPER :	HANWA CO., LTD.
注文者照合番号 REFERENCE No. :	228-38501040
契約番号 CONTRACT No. :	0-831-H1-5-0-AT01
商品名 COMMODITY :	HOT ROLLED STEEL PLATES
規格 SPECIFICATION :	ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :	

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 5
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM*****
需要家管理番号 CUSTOMER'S CONTROL No. : *****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ″:inch, ′:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	IMPACT LOCATION ORIENTATION ※1	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm	TAl ×1000 / Sol.Al	Ceq.1 ×100 / Ceq.2 ×100	CONDITION OF SUPPLY ※7
04 1″X120.5′X480″	1	7442	G7492 55172	TESTED-PL 879270427	TCI	53	76	30	TLF	277	281 273 276	AVG 150		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
													P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1″X120.5′X480″	1	7442	G7492 55172	879270428	TCI	53	76	30	TLF	277	281 273 276	AVG 150		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
													P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1″X120.5′X480″	1	7442	G7492 55173	TESTED-PL 879270431	TCI	53	76	30	TLF	274	273 279 270	AVG 152		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
													P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	

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

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

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

AY4021703542

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 6
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1 ※2	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1 SIZE ※5	2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % ※6	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TiAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G7492 55173	879270432	TC	53	76	30			TLF	274	273 279 270	AVG 152		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
															P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1"X120.5"X480"	1	7442	G7492 55174	TESTED-PL 879270435	TC	53	76	33			TLF	274	284 272 267	AVG 151		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
															P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1"X120.5"X480"	1	7442	G7492 55174	879270436	TC	53	76	33			TLF	274	284 272 267	AVG 151		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
															P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	

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

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

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

T. Adachi

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

AX4021803542

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼 材 検 査 証 明 書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 7
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ″:inch, ′:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100 / —	Si ×100 / N ×10000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×1000	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×1000	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	納入条件 CONDITION OF SUPPLY ※7
04 1′X120.5′X480′	1	7442	G7492 55175	TESTED-PL 879270421	TC	I	54	76	30			TL	F	268	263 282 258	AVG 152		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	1	2	023	41	
																	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	1	4	0	41	
04 1′X120.5′X480′	1	7442	G7492 55175	879270422	TC	I	54	76	30			TL	F	268	263 282 258	AVG 152		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	1	2	023	41	
																	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	1	4	0	41	
04 1′X120.5′X480′	1	7442	G7492 55176	TESTED-PL 879270425	TC	I	53	76	31			TL	F	283	282 286 282	AVG 151		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	1	2	023	41	
																	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	1	4	0	41	

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

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

AX40219035A2

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER：HANWA CO., LTD.
注文者照合番号 REFERENCE No.：228-38501040
契約番号 CONTRACT No.：0-831-H1-5-0-AT01
商品名 COMMODITY：HOT ROLLED STEEL PLATES
規格 SPECIFICATION：ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No.：
需要家 CUSTOMER：EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No.：P-09831　頁 PAGE：8
発行年月日 DATE OF ISSUE：2010-10-26
1001　2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No.：E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験	LOCATION ORIENTATION ※1	SIZE ※2	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION %	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TiAl ×100	Ceq.1 ×100	熱処理 HEAT TREATMENT CONDITION ※7
04 1'X120.5'X480'	1	7442	G7492 55176	879270426	TC	1	53	76	31			TL	F	283	282 286 282	AVG 151		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1'X120.5'X480'	1	7442	G7492 55177	TESTED-PL 879270429	TC	1	54	76	32			TL	F	281	289 284 270	AVG 151		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1'X120.5'X480'	1	7442	G7492 55177	879270430	TC	1	54	76	32			TL	F	281	289 284 270	AVG 151		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	

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

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

AY402200354 2

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 9
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ORIENTATION ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TiAl ×100	Ceq.1 ×100	仕様 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G7492 55178	TESTED-PL 879270433	TC	I	54	76	31			TLF	289	293 295 278	AVG 152	16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																P16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1"X120.5"X480"	1	7442	G7492 55178	879270434	TC	I	54	76	31			TLF	289	293 295 278	AVG 152	16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																P16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1"X120.5"X480"	1	7442	G7492 55179	TESTED-PL 879270449	TC	I	53	76	32			TLF	223	134 257 279	AVG 152	16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																P16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	

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

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

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

AX4021103542

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 10
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION (※1)	GL (※2)	引張試験 TENSILE TEST 耐力降伏点 YS (YP) 0.2% KSI	引張強さ TS KSI	伸び EL %	% (※3)	HEAT TREATMENT (※4)	LOCATION ORIENTATION (※5)	SIZE	衝撃試験 IMPACT TEST 2V-50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % (※6)	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	供給状態 CONDITION OF SUPPLY (※7)
																			N ×1000	TE3 ×1000	TE1 ×100	SN ×100	CA ×10000	B ×10000	TI ×100	Pcm ×100	Sol. Al ×100	Ceq.2 ×100	
04 1'X120.5'X480'	1	7442	G7492 55179	879270450	TC	I	53	76	32			TL	F	223	134 257 279	AVG 152		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1'X120.5'X480'	1	7442	G7492 55180	TESTED-PL 879270439	TC	I	55	76	32			TL	F	269	275 255 277	AVG 155		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																	P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1'X120.5'X480'	1	7442	G7492 55180	879270440	TC	I	55	76	32			TL	F	269	275 255 277	AVG 155		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
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注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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温度 Temperature C: °C F: °F

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

AX4022203542

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 11
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL. ※1	引張試験 TENSILE TEST 耐力降伏点 YS ヤング 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST DIRECTION ※1	LOCATION ORIENTATION SIZE ※1	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100 ~×1000	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100 ~×1000	V ×100 ~×1000	TAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G7492 55181	TESTED-PL 879270445	TC	54	75	32			TLF	267	261 273 266	AVG 152	16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
															P16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1"X120.5"X480"	1	7442	G7492 55181	879270446	TC	54	75	32			TLF	267	261 273 266	AVG 152	16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
															P16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1"X120.5"X480"	1	7442	G7492 55182	TESTED-PL 879270441	TC	54	76	32			TLF	293	299 299 280	AVG 153	16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
															P16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	

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

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

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4022305542

B

注文者 SHIPPER : HANWA CO., LTD.

注文者照合番号 REFERENCE No. : 228-38501040

契約番号 CONTRACT No. : 0-831-H1-5-0-AT01

商品名 COMMODITY : HOT ROLLED STEEL PLATES

規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08

文書番号 DOCUMENT No. :

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

新日本製鐵株式會社
Nippon Steel Corporation

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証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 12

発行年月日 DATE OF ISSUE : 2010-10-26

1001 2**DM***** *****CEW**

需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	LOCATION ORIENTATION SIZE	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
04 1"X120.5'X480"	1	7442	G7492 / 55182	879270442	TC	54	76	32	TLF	293	299 299 280	AVG 153
04 1"X120.5'X480"	1	7442	G7492 / 55183	TESTED-PL 879270437	TC	53	76	31	TLF	271	282 263 267	AVG 152
04 1"X120.5'X480"	1	7442	G7492 / 55183	879270438	TC	53	76	31	TLF	271	282 263 267	AVG 152

化学成分 CHEMICAL COMPOSITION %

	C ×100	Si ×100 / N	Mn ×100 / TE3	P ×1000 / TE1	S ×1000	Cu ×100 / SN	Ni ×100 / CA	Cr ×100 / B	Mo ×100 / TI	Nb ×1000	V ×100 / Pcm	TAl ×1000 / Sol.Al	Ceq1 ×100 / Ceq2
Plate 879270442	16	36 / 29	144 / 2	7 / 6	2	2 / 0	2 / 10	2 / 2	0 / 0	12	0	23	41
P	16	38 / 32	147	7 / 6	2	2	2 / 16	2 / 0	0 / 0	14	0		41
Plate 879270437	16	36 / 29	144 / 2	7 / 6	2	2 / 0	2 / 10	2 / 2	0 / 0	12	0	23	41
P	16	38 / 32	147	7 / 6	2	2	2 / 16	2 / 0	0 / 0	14	0		41
Plate 879270438	16	36 / 29	144 / 2	7 / 6	2	2 / 0	2 / 10	2 / 2	0 / 0	12	0	23	41
P	16	38 / 32	147	7 / 6	2	2	2 / 16	2 / 0	0 / 0	14	0		41

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

※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65√So, K: 4√So

※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A: 合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis, 温度 Temperature °C °F

※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled

SH: 延性破面率 Shear Fracture, CF: 脆性破面率 Crystallinity Fracture, LE: 横膨出 Lateral Expansion, AGS: オーステナイト粒度 Austenite Grain Size, FGS: フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment

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

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4022403542

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

需要家管理番号 CUSTOMER'S CONTROL No. :

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

証明書番号 CERTIFICATE No. : P-09831　頁 PAGE : 13
発行年月日 DATE OF ISSUE : 2010-10-26
1001　2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N	Mn ×100 / TE3	P ×1000 / TE1	S ×1000	Cu ×100 / SN	Ni ×100 / CA	Cr ×100 / B	Mo ×100 / TI	Nb ×1000	V ×100 / Pcm	TAl ×1000 / Sol. Al	Ceq. 1 ×100 / Ceq. 2	CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7492 55184	TESTED-PL 879270451	TC	53	76	34			TL	F	265	276 255 264	AVG 152		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1'X120.5'X480'	1	7442	G7492 55184	879270452	TC	53	76	34			TL	F	265	276 255 264	AVG 152		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	
04 1'X120.5'X480'	1	7442	G7492 55185	TESTED-PL 879270447	TC	54	76	29			TL	F	279	268 279 290	AVG 152		16	36 29	144 2	7 6	2	2 0	2 10	2 2	0 0	12	0	23	41	
																P	16	38 32	147	7 6	2	2	2 16	2 0	0 0	14	0		41	

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

※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: $5.65\sqrt{So}$, K: $4\sqrt{So}$

※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A: 合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis.

※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled

SH: 延性破面率 Shear Fracture, CF: 脆性破面率 Crystallinity Fracture, LE: 横膨出 Lateral Expansion, AGS: オーステナイト粒度 Austenite Grain Size, FGS: フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment

温度 Temperature °C °F

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

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

AY40225035

8

注文者 SHIPPER	:	HANWA CO., LTD.
注文者照合番号 REFERENCE No.	:	228-38501040
契約番号 CONTRACT No.	:	0-831-H1-5-0-AT01
商品名 COMMODITY	:	HOT ROLLED STEEL PLATES
規格 SPECIFICATION	:	ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No.	:	

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 14
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW
04 1"X120.5'X480"	1	7442	G7492 55185	879270448	TC	I	54	76	29			TL	F	279	268 279 290	AVG 152
04 1"X120.5'X480"	1	7442	G7492 55186	TESTED-PL 879270443	TC	I	54	76	30			TL	F	278	265 285 285	AVG 154
04 1"X120.5'X480"	1	7442	G7492 55186	879270444	TC	I	54	76	30			TL	F	278	265 285 285	AVG 154

化学成分 CHEMICAL COMPOSITION %

Plate No.	※6	C ×100 / N ×1000	Si ×100 / TE3	Mn ×100 / TE1 ×100	P ×1000	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100 / Pcm ×100	V ×100 / Sol. Al ×1000	TAl ×1000 / Ceq. 2 ×100	Ceq. 1 ×100	製造条件 CONDITION OF SUPPLY ※7
879270448		16	36 / 29	144 / 2	7 / 6	2	2 / 0	2 / 10	2 / 2	0 / 0	12	0	23	41	
	P	16	38 / 32	147	7 / 6	2	2	2 / 16	2 / 0	0 / 0	14	0		41	
879270443		16	36 / 29	144 / 2	7 / 6	2	2 / 0	2 / 10	2 / 2	0 / 0	12	0	23	41	
	P	16	38 / 32	147	7 / 6	2	2	2 / 16	2 / 0	0 / 0	14	0		41	
879270444		16	36 / 29	144 / 2	7 / 6	2	2 / 0	2 / 10	2 / 2	0 / 0	12	0	23	41	
	P	16	38 / 32	147	7 / 6	2	2	2 / 16	2 / 0	0 / 0	14	0		41	

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CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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SH: 延性破面率 Shear Fracture, CF: 脆性破面率 Crystallinity Fracture, LE: 横膨出 Lateral Expansion.

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX40226035421

B

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注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

新日本製鐵株式會社
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需要家管理番号 CUSTOMER'S CONTROL No. : *****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1 / GL ※2	引張試験 TENSILE TEST 耐力/降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	IMPACT TEST LOCATION ORIENTATION SIZE ※1 ※5	衝撃試験 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×1000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×1000 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	供給状態 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G6834 59744	TESTED-PL 879270481	TC I	54	76	32		T L F	282	273 285 288	AVG 152		15	36 33	144 2	6 7	1	3 0	2 13	2 1	0 0	12	0	25	40	
														P	15	37 35	143	6 7	1	3	2 16	2 0	0 0	12	0		40	
06 1.5"X121"X480"	1	11207	G7545 55533	TESTED-PL 879270601	TC I	51	75	34		T L F	291	290 292 291	AVG 151		16	37 29	144 1	7 5	2	2 0	2 11	1 2	0 0	12	0	30	40	
														P	15	37 33	145	6 5	2	2	2 13	1 1	0 0	14	0		40	
06 1.5"X121"X480"	1	11207	G7545 55534	TESTED-PL 879270604	TC I	51	75	35		T L F	283	277 298 274	AVG 150		16	37 29	144 1	7 5	2	2 0	2 11	1 2	0 0	12	0	30	40	
														P	15	37 33	145	6 5	2	2	2 13	1 1	0 0	14	0		40	

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

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

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

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

AY40222703542

B

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

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09831 頁 PAGE : 26E
発行年月日 DATE OF ISSUE : 2010-10-26
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力/降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	%	BEND TEST	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG / 個々値 EACH	HBW	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb	V	TAl	Ceq 1	CONDITION OF SUPPLY ※7
														N	TE3	TE1		SN	CA	B	TI	Pcm	Sol. Al	Ceq 2	

HEAT TREATMENT.
PLATE & TEST SPECIMEN NORMALIZING : 910CX 10MIN.
CHARPY IMPACT TEST TEMPERATURE(SI): - 46C
LADLE CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
PRODUCT CEQ1 = C+MN/6+(NI+CU)/15+(CR+MO+V)/5
LADLE TE1 = CU+NI+CR+MO
LADLE TE3 = CR+MO
PRODUCT TE1 = CU+NI+CR+MO
CHEMICAL COMPOSITION % : 'N' X10000
CHEMICAL COMPOSITION % : 'SN' X1000
CHEMICAL COMPOSITION % : 'TE3' X100
LADLE TREATMENT : VACUUM DEGASSED
SULPHIDE SHAPE CONTROL

MTR APPROVED
EDMONTON EXCHANGER

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65√So, K: 4√So
※3 RA : 絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 5.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis,
N I C: NIC Process/TMC Process, C L C: CLC Process/TMC Process, A R: As Rolled, T M R: TMR Process/TMC Process, N R: Normalizing Rolled
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, C R: Controlled Rolled, 温度 Temperature
SH:延性破面率 Shear Fracture, C F:脆性破面率 Crystallinity Fracture, L E:横膨出 Lateral Expansion, A G S:オーステナイト粒度 Austenite Grain Size, F G S:フェライト粒度 Ferrite Grain Size, S R: Stress Relieved/Post Weld Heat Treatment

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

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

AY4023803542

B

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

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商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 12
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ″:inch, ′:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
03 1′X96.5′X480′	1	5958	G7547 55586	879270316	TC		53	76	31			TL	F	297	293 303 295	AVG 154
04 1′X120.5′X480′	1	7442	G7491 55154	TESTED-PL 879270405	TC		53	76	32			TL	F	295	297 302 285	AVG 151
04 1′X120.5′X480′	1	7442	G7491 55154	879270406	TC		53	76	32			TL	F	295	297 302 285	AVG 151

化学成分 CHEMICAL COMPOSITION %

Cast No.	※6	C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×1000	V ×100	TAl ×1000	Ceq.1 ×100	※7
			N ×10000	TE3 ×1000	TE1 ×100	×100	SN ×100	CA ×10000	B ×10000	TI ×100		Pcm ×100	Sol. Al ×1000	Ceq.2 ×100	
G7547		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
G7547	P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
G7491		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
G7491	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	
G7491		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
G7491	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	

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

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

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15763

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

AY4001202742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 13
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
1"X120.5'X480" 04	1	7442	G7491 55155	TESTED-PL 879270409	TC	I	53	76	32			TL	F	250	136 310 305	AVG 152
1"X120.5'X480" 04	1	7442	G7491 55155	879270410	TC	I	53	76	32			TL	F	250	136 310 305	AVG 152
1"X120.5'X480" 04	1	7442	G7491 55156	TESTED-PL 879270413	TC	I	54	76	34			TL	F	286	298 271 290	AVG 153

化学成分 CHEMICAL COMPOSITION %

Plate No.	※6	C ×100 / ×1000	Si ×100 / N ×10000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100 / ×1000	V ×100 / ×1000 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	製造条件 CONDITION OF SUPPLY ※7
879270409		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	
879270410		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	
879270413		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis, 温度 Temperature °C °F
※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4001302742

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 14
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ':inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	%	BEND TEST	LOCATION ORIENTATION	SIZE	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW		C ×100	Si ×100 / N	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	供給状態 CONDITION OF SUPPLY
04 1'X120.5'X480'	1	7442	G7491 55156	879270414	TC	54	76	34			TL	F	286	298 271 290	AVG 153		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1'X120.5'X480'	1	7442	G7491 55157	TESTED-PL 879270401	TC	53	76	32			TL	F	301	304 290 308	AVG 153		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1'X120.5'X480'	1	7442	G7491 55157	879270402	TC	53	76	32			TL	F	301	304 290 308	AVG 153		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	

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

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

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

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

AY4001402742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-09818　頁 PAGE : 15
発行年月日 DATE OF ISSUE : 2010-10-25
1001　2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1 / GL ※2	引張試験 TENSILE TEST 耐力/降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION / SIZE ※5	2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×1000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×1000 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	供給状態 CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7491 55159	TESTED-PL 879270403	TC I	54	76	31			TLF	293	304 295 279	AVG 151		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
															P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1'X120.5'X480'	1	7442	G7491 55159	879270404	TC I	54	76	31			TLF	293	304 295 279	AVG 151		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
															P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1'X120.5'X480'	1	7442	G7491 55160	879270408	TC I	53	76	33			TLF	299	294 300 303	AVG 152		16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
															P	15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	

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

※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: $5.65\sqrt{So}$, K: $4\sqrt{So}$

※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis, 温度 Temperature □□□°C: □□□°F

※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled

SH: 延性破面率 Shear Fracture, CF: 脆性破面率 Crystallinity Fracture, LE: 横膨出 Lateral Expansion, AGS: オーステナイト粒度 Austenite Grain Size, FGS: フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment

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

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

AX4001502742

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 16
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST GL ※2	降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST DIAMETER ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※5	2V-50F FT.LB 平均値 AVG	個々値 EACH	HBV	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×1000	V ×100	TAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7491 55161	TESTED-PL 879270411	TC	I	53	76	33			TL	F	286	277 297 285	AVG 150	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																	P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1'X120.5'X480'	1	7442	G7491 55161	879270412	TC	I	53	76	33			TL	F	286	277 297 285	AVG 150	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																	P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1'X120.5'X480'	1	7442	G7491 55162	TESTED-PL 879270415	TC	I	54	76	32			TL	F	293	285 289 304	AVG 152	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
																	P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	

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

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

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J. Adachi

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

AX4001602742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES

証明書番号 CERTIFICATE No. : P-09818　頁 PAGE : 17
発行年月日 DATE OF ISSUE : 2010-10-25
1001　2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
04 1'X120.5'X480'	1	7442	G7491 55162	879270416	TC	1	54	76	32			TL	F	293	285 289 304	AVG 152
04 1'X120.5'X480'	1	7442	G7491 55166	TESTED-PL 879270417	TC	1	54	76	32			TL	F	283	283 282 284	AVG 153
04 1'X120.5'X480'	1	7442	G7491 55166	879270418	TC	1	54	76	32			TL	F	283	283 282 284	AVG 153

化学成分 CHEMICAL COMPOSITION %

Plate	※6	C ×100	Si ×100 / N ×10000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	供給条件 CONDITION OF SUPPLY ※7
879270416		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
879270416	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	
879270417		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
879270417	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	
879270418		16	36 / 32	143 / 2	9 / 6	1	2 / 0	2 / 9	2 / 2	0 / 0	12	0	23	40	
879270418	P	15	37 / 34	143	8 / 6	2	2	2 / 15	2 / 0	0 / 0	11	0		40	

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

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4001702742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

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注文者照合番号 REFERENCE No. : 228-38501040
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商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818
頁 PAGE : 18
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1 ※2	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST	LOCATION ORIENTATION SIZE	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TiAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G7491 55169	TESTED-PL 879270419	TC	55	76	34			TL	F267	278 256 268	AVG 152	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
															P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1"X120.5"X480"	1	7442	G7491 55169	879270420	TC	55	76	34			TL	F267	278 256 268	AVG 152	16	36 32	143 2	9 6	1	2 0	2 9	2 2	0 0	12	0	23	40	
															P15	37 34	143	8 6	2	2	2 15	2 0	0 0	11	0		40	
04 1"X120.5"X480"	1	7442	G7546 55568	TESTED-PL 879270455	TC	53	75	33			TL	F287	287 281 292	AVG 152	16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
															P15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	

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

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

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T. Adachi

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

AY4001802742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

証明書番号 CERTIFICATE No. : P-09818
頁 PAGE : 19
発行年月日 DATE OF ISSUE : 2010-10-25
1001
2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':fect	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※2	IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※3	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TiAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G7546 55568	879270456	TC	53	75	33		TL	F	287	287 281 292	AVG 152	16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
															P15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1"X120.5"X480"	1	7442	G7546 55569	TESTED-PL 879270453	TC	54	75	31		TL	F	286	290 275 293	AVG 150	16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
															P15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1"X120.5"X480"	1	7442	G7546 55569	879270454	TC	54	75	31		TL	F	286	290 275 293	AVG 150	16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
															P15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	

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

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KIMITSU WORKS

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Nippon Steel Corporation

鋼材検査証明書
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君津製鐵所 KIMITSU WORKS : 〒299-1141 千葉県君津市君津1番地 1, KIMITSU, KIMITSU-CITY, CHIBA-PREF, 299-1141 JAPAN

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商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 20
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ORIENTATION ※1	衝撃試験 IMPACT TEST 2V-50F FT.LB ※5 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7546 55570	TESTED-PL 879270463	TC	I	53	75	33			TL	F299	294 299 304	AVG 151	16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																P15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1'X120.5'X480'	1	7442	G7546 55570	879270464	TC	I	53	75	33			TL	F299	294 299 304	AVG 151	16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																P15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1'X120.5'X480'	1	7442	G7546 55571	TESTED-PL 879270459	TC	I	53	75	31			TL	F281	261 296 286	AVG 150	16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																P15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	

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

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

AY4002002742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 21
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※5	2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100 / ×1000	Si ×100 / N ×10000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100 / ×1000	V ×100 / ×1000 / Pcm ×100	TAl ×100 / Sol. Al ×100	Ceq. 1 ×100 / Ceq. 2 ×100	供給状態 CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7546 55571	879270460	TC	I	53	75	31			TL	F	281	261 296 286	AVG 150		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1'X120.5'X480'	1	7442	G7546 55572	TESTED-PL 879270457	TC	I	53	75	32			TL	F	293	296 309 274	AVG 153		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
04 1'X120.5'X480'	1	7442	G7546 55572	879270458	TC	I	53	75	32			TL	F	293	296 309 274	AVG 153		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
																	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A: 合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 Plate Thickness, ※6 P: 製品分析 Product Analysis, 温度 Temperature °C: °F
※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH: 延性破面率 Shear Fracture, CF: 脆性破面率 Crystallinity Fracture, LE: 横膨出 Lateral Expansion, AGS: オーステナイト粒度 Austenite Grain Size, FGS: フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment

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

AY400210274

B

注文者 SHIPPER	:	HANWA CO., LTD.
注文者照合番号 REFERENCE No.	:	228-38501040
契約番号 CONTRACT No.	:	0-831-H1-5-0-AT01
商品名 COMMODITY	:	HOT ROLLED STEEL PLATES
規格 SPECIFICATION	:	ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No.	:	

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

需要家管理番号 CUSTOMER'S CONTROL No. :

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

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 22

発行年月日 DATE OF ISSUE : 2010-10-25

1001 2**DM***** *****CEW**

E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	IMPACT LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
04 1"X120.5'X480"	1	7442	G7546 55574	TESTED-PL 879270461	TC	53	75	32			TL	F	291	292 291 291	AVG 151
04 1"X120.5'X480"	1	7442	G7546 55574	879270462	TC	53	75	32			TL	F	291	292 291 291	AVG 151
04 1"X120.5'X480"	1	7442	G7547 55584	TESTED-PL 879270465	TC	53	76	31			TL	F	299	300 304 294	AVG 152

化学成分 CHEMICAL COMPOSITION %

Plate	※6	C ×100	Si ×100 / N ×1000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	CONDITION OF SUPPLY ※7
879270461		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
879270462		16	37 31	145 2	8 6	2	2 0	2 13	2 2	0 0	12	0	25	41	
	P	15	37 33	144	7 6	2	2	2 15	2 0	0 0	12	0		40	
879270465		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	

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※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AX40022202742

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新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

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1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION OIL ※1	引張試験 TENSILE TEST 降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※5	2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
04 1"X120.5"X480"	1	7442	G7547 55584	879270466	TC	53	76	31			TLF		299	300 304 294	AVG 152	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1"X120.5"X480"	1	7442	G7547 55587	TESTED-PL 879270467	TC	54	76	29			TLF		292	290 297 288	AVG 151	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1"X120.5"X480"	1	7442	G7547 55587	879270468	TC	54	76	29			TLF		292	290 297 288	AVG 151	15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																P15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	

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

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

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

AY4002302742

B

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

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 24
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ':inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N ×1000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 / Ceq.2 ×100	CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7547 55588	TESTED-PL 879270471	TC	I	54	76	33			TL	F	287	294 288 279	AVG 152		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1'X120.5'X480'	1	7442	G7547 55588	879270472	TC	I	54	76	33			TL	F	287	294 288 279	AVG 152		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1'X120.5'X480'	1	7442	G7547 55589	TESTED-PL 879270477	TC	I	53	76	32			TL	F	286	282 288 287	AVG 154		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	

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

温度 Temperature °C °F

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

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

AY4002402742

B

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09818
頁 PAGE : 25
発行年月日 DATE OF ISSUE : 2010-10-25
1001
2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ':inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力/降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST ※4	IMPACT LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 N ×10000	Mn ×100 TE3	P ×1000 TE1 ×100	S ×1000 ×100	Cu ×100 SN ×100	Ni ×100 CA ×10000	Cr ×100 B ×10000	Mo ×100 TI ×100	Nb ×1000	V ×1000 Pcm ×100	TAl ×1000 Sol.Al	Ceq.1 ×100 Ceq.2 ×100	CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7547 55589	879270478	TC		53	76	32			TL	F	286	282 288 287	AVG 154		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1'X120.5'X480'	1	7442	G7547 55591	TESTED-PL 879270473	TC		53	76	32			TL	F	282	276 278 293	AVG 151		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1'X120.5'X480'	1	7442	G7547 55591	879270474	TC		53	76	32			TL	F	282	276 278 293	AVG 151		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	

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

※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65√So, K: 4√So

※3 RA: 絞り Reduction of Area, YR: 降伏比 Yield Ratio, ※4 A: 合格 Acceptable, ※5 F: 標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P: 製品分析 Product Analysis, 温度 Temperature °C / °F

※7 N: 焼準 Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled

SH: 延性破面率 Shear Fracture, CF: 脆性破面率 Crystallinity Fracture, LE: 横膨出 Lateral Expansion, AGS: オーステナイト粒度 Austenite Grain Size, FGS: フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment

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

AY4002502742

B

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

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 26
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100 / N ×1000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	CONDITION OF SUPPLY ※7
04 1'X120.5'X480'	1	7442	G7547 55592	TESTED-PL 879270469	TC	I	53	76	31			TL	F	269	278 266 263	AVG 152		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1'X120.5'X480'	1	7442	G7547 55592	879270470	TC	I	53	76	31			TL	F	269	278 266 263	AVG 152		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	
04 1'X120.5'X480'	1	7442	G7547 55593	TESTED-PL 879270479	TC	I	53	76	33			TL	F	295	292 295 297	AVG 153		15	38 32	146 2	9 6	2	2 0	2 13	2 2	0 0	13	0	32	40	
																	P	15	38 35	144	9 6	2	2	2 19	2 0	0 0	14	0		40	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment
温度 Temperature °C °F

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4002602742

B

注文者 SHIPPER: HANWA CO., LTD.
注文者照合番号 REFERENCE No.: 228-38501040
契約番号 CONTRACT No.: 0-831-H1-5-0-AT01
商品名 COMMODITY: HOT ROLLED STEEL PLATES
規格 SPECIFICATION: ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No.:

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

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

需要家 CUSTOMER: EDMONTON EXCHANGER GROUP OF C-OMPANIES

需要家管理番号 CUSTOMER'S CONTROL No.:

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

証明書番号 CERTIFICATE No.: P-09818　頁 PAGE: 27
発行年月日 DATE OF ISSUE: 2010-10-25
1001　2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ′:inch, ′:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※5	2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW
1′X120.5′X480′ 04	1	7442	G7547 55593	879270480	TC	I	53	76	33			TL	F	295	292 295 297	AVG 153
1′X120.5′X480′ 04	1	7442	G7547 55595	TESTED-PL 879270475	TC	I	54	76	30			TL	F	289	275 301 292	AVG 154
1′X120.5′X480′ 04	1	7442	G7547 55595	879270476	TC	I	54	76	30			TL	F	289	275 301 292	AVG 154

化学成分 CHEMICAL COMPOSITION %

Plate No.	※6	C ×100 / ×1000	Si ×100 / N ×10000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×100 / ×1000	V ×100 / ×1000 / Pcm ×100	TAl ×1000 / Sol. Al ×1000	Ceq. 1 ×100 / Ceq. 2 ×100	供給状態 CONDITION OF SUPPLY ※7
879270480		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
	P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
879270475		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
	P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
879270476		15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
	P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	

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

※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65√So, K: 4√So

※3 RA:絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:標準寸法 FULL SIZE, 2: 2.5mm, 3: 3.3mm, 4: 3.33mm, 5: 5.0mm, 6: 6.67mm, 7: 7.5mm, 8: 6.7mm, 9: 製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,

※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled

SH:延性破面率 Shear Fracture, CF:脆性破面率 Crystallinity Fracture, LE:横膨出 Lateral Expansion, AGS:オーステナイト粒度 Austenite Grain Size, FGS:フェライト粒度 Ferrite Grain Size, SR: Stress Relieved/Post Weld Heat Treatment

温度 Temperature °C °F

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

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T. Adachi

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

AX4002702742

B

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

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

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 38
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST	LOCATION ORIENTATION SIZE ※1 ※2	衝撃試験 IMPACT TEST 2V -50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	T.Al ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
10 2"X121"X480"	1	14943	G7489 55119	TESTED-PL 879271009	TC	50	75	36			TLF	257	247 257 267	AVG 147	16	38 34	143 2	9 6	2	2 0	2 9	2 0	0 0	13	0	25	40	
															P16	38 34	142	9 6	2	2	2 13	2 0	0 0	13	0		40	
10 2"X121"X480"	1	14943	G7489 55120	TESTED-PL 879271010	TC	52	75	34			TLF	267	274 266 261	AVG 148	16	38 34	143 2	9 6	2	2 0	2 9	2 0	0 0	13	0	25	40	
															P16	38 34	142	9 6	2	2	2 13	2 0	0 0	13	0		40	
TOTAL	131	1007886																										

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

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

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4003802742

B

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Nippon Steel Corporation

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商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF COMPANIES
需要家管理番号 CUSTOMER'S CONTROL No. :

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 39E
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ′:inch, ″:feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST 曲げ試験 ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % ※6: C ×100 ×1000	Si ×100 / N ×10000	Mn ×100 / TE3 ×1000	P ×1000 / TE1 ×100	S ×1000 / ×100	Cu ×100 / SN ×100	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×100 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	供給条件 CONDITION OF SUPPLY ※7
				CHEMICAL COMPOSITION % : 'N' X10000																									
				CHEMICAL COMPOSITION % : 'SN' X1000																									
				CHEMICAL COMPOSITION % : 'TE3' X100																									
				LADLE TREATMENT : VACUUM DEGASSED																									
				SULPHIDE SHAPE CONTROL																									

MTR-APPROVED EDMONTON EXCHANGER

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
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J. Adachi
君津製鐵所厚板管理グループリーダー
Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY4003902742

B

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規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

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

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証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 8
発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,':inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST 形状 ※4	衝撃試験 IMPACT TEST LOCATION ORIENTATION ※1	SIZE ※5	2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW		C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TiAl ×100	Ceq.1 ×100	熱処理 CONDITION OF SUPPLY ※7
02			G7491	FROM											45		AVG	16	36	143	9	1	2	2	2	0	12	0	23	40	
0.75'X120.5'X480'	2	11158	55168	879270214	TC	I	54	77	30			TL	F	189	272		156		32	2	6		0	9	2	0					
				TO											250																
				879270215																											
																	P	16	37	144	9	2	2	2	2	0	12	0		41	
																			35		6			13	0	0					
03			G7493	TESTED-PL											285		AVG	15	36	143	5	1	2	2	2	0	13	0	25	40	
1'X96.5'X480'	1	5958	55194	879270301	TC	I	53	75	30			TL	F	294	309		151		28	2	6		0	13	2	0					
															288																
																	P	15	36	142	6	1	2	2	2	0	12	0		39	
																			34		6			17	0	0					
03			G7493	FROM											285		AVG	15	36	143	5	1	2	2	2	0	13	0	25	40	
1'X96.5'X480'	2	11916	55194	879270302	TC	I	53	75	30			TL	F	294	309		151		28	2	6		0	13	2	0					
				TO											288																
				879270303													P	15	36	142	6	1	2	2	2	0	12	0		39	
																			34		6			17	0	0					

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

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15769

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

AX4000802742

B

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Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 9
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1001 2**DM*****
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寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	LOCATION ORIENTATION ※1	SIZE	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	※6	C ×100	Si ×100 / N	Mn ×100 / TE3	P ×1000 / TE1	S ×1000	Cu ×100 / SN	Ni ×100 / CA	Cr ×100 / B	Mo ×100 / TI	Nb	V	TAl / Sol.Al	Ceq.1 / Ceq.2	CONDITION OF SUPPLY ※7
03 1"X96.5'X480'	1	5958	G7493 55197	TESTED-PL 879270310	TC		53	75	30		TL	F	280	276 282 281	AVG 151		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
																P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	
03 1"X96.5'X480'	2	11916	G7493 55197	FROM 879270311 TO 879270312	TC		53	75	30		TL	F	280	276 282 281	AVG 151		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
																P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	
03 1"X96.5'X480'	1	5958	G7493 55199	TESTED-PL 879270307	TC		52	75	31		TL	F	284	293 289 270	AVG 152		15	36 28	143 2	5 6	1	2 0	2 13	2 2	0 0	13	0	25	40	
																P	15	36 34	142	6 6	1	2	2 17	2 0	0 0	12	0		39	

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Head of Department
PLATE QUALITY CONTROL DEPT.
KIMITSU WORKS

AY40009022742

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新日本製鐵株式會社
Nippon Steel Corporation

鋼材検査証明書
INSPECTION CERTIFICATE

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

注文者 SHIPPER : HANWA CO., LTD.
注文者照合番号 REFERENCE No. : 228-38501040
契約番号 CONTRACT No. : 0-831-H1-5-0-AT01
商品名 COMMODITY : HOT ROLLED STEEL PLATES
規格 SPECIFICATION : ASME SA-516 GRADE 70-E07-A08
文書番号 DOCUMENT No. :
需要家 CUSTOMER : EDMONTON EXCHANGER GROUP OF C-OMPANIES

(AS PER EN 10204 CERTIFICATE ON MATERIAL TESTS 3.1)

証明書番号 CERTIFICATE No. : P-09818 頁 PAGE : 10
発行年月日 DATE OF ISSUE : 2010-10-25
1001
2**DM*****
*****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P0700 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C ×100	Si ×100	Mn ×100	P ×1000	S ×1000	Cu ×100	Ni ×100	Cr ×100	Mo ×100	Nb ×100	V ×100	TAl ×100	Ceq.1 ×100	熱処理 HEAT TREATMENT ※7
03			G7493	FROM											293		15	36	143	5		2	2	2	0	13	0	25	40	
1'X96.5'X480'	2	11916	55199	879270308	TC	1	52	75	31			TL	F	284	289	AVG 152		28	2	6		0	13	2	0					
				TO											270														
				879270309													P	15	36	142	6	1	2	2	2	0	12	0		39	
																		34		6			17	0	0					
03			G7493	TESTED-PL											270		15	36	143	5	1	2	2	2	0	13	0	25	40	
1'X96.5'X480'	1	5958	55200	879270304	TC	1	53	75	31			TL	F	270	277	AVG 151		28	2	6		0	13	2	0					
															264														
																	P	15	36	142	6	1	2	2	2	0	12	0		39	
																		34		6			17	0	0					
03			G7493	FROM											270		15	36	143	5	1	2	2	2	0	13	0	25	40	
1'X96.5'X480'	2	11916	55200	879270305	TC	1	53	75	31			TL	F	270	277	AVG 151		28	2	6		0	13	2	0					
				TO											264														
				879270306													P	15	36	142	6	1	2	2	2	0	12	0		39	
																		34		6			17	0	0					

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

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

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寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	GL ※2	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	BEND TEST ※4	LOCATION ORIENTATION ※1	SIZE ※5	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW
03 1'X96.5'X480'	1	5958	G7547 55583	TESTED-PL 879270313	TC	I	53	76	29			TL	F	306	317 312 288	AVG 153
03 1'X96.5'X480'	1	5958	G7547 55583	879270314	TC	I	53	76	29			TL	F	306	317 312 288	AVG 153
03 1'X96.5'X480'	1	5958	G7547 55586	TESTED-PL 879270315	TC	I	53	76	31			TL	F	297	293 303 295	AVG 154

化学成分 CHEMICAL COMPOSITION %

※6	C ×100	Si ×100 / N ×1000	Mn ×100 / TE3	P ×1000 / TE1 ×100	S ×1000	Cu ×100 / SN	Ni ×100 / CA ×10000	Cr ×100 / B ×10000	Mo ×100 / TI ×100	Nb ×1000	V ×1000 / Pcm ×100	TAl ×1000 / Sol.Al ×1000	Ceq.1 ×100 / Ceq.2 ×100	製品状態 CONDITION OF SUPPLY ※7
	15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
	15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	
	15	38 / 32	146 / 2	9 / 6	2	2 / 0	2 / 13	2 / 2	0 / 0	13	0	32	40	
P	15	38 / 35	144	9 / 6	2	2	2 / 19	2 / 0	0 / 0	14	0		40	

注釈 NOTES ※1 Location Orientation 位置・方向, T:頭部 Top, B:底部 Bottom, L:圧延方向 Longitudinal, C:直角方向 Transverse, Z:板厚方向 Through Thickness, R:45° 方向 45Deg. to the Longitudinal Axis
※2 GL 標点距離 Gage Length, A: 50mm 平形試験片 Rectangular, B: 50mm 丸形試験片 Round, C: 70mm 平形試験片 Rectangular, D: 70mm 丸形試験片 Round, E: 80mm 平形試験片 Rectangular, F: 80mm 丸形試験片 Round, G: 200mm, H: 2", I: 8", J: 5.65√So, K: 4√So
※3 RA : 絞り Reduction of Area, YR : 降伏比 Yield Ratio, ※4 A : 合格 Acceptable, ※5 F : 標準寸法 FULL SIZE, 2 : 2.5mm, 3 : 3.3mm, 4 : 3.33mm, 5 : 5.0mm, 6 : 6.67mm, 7 : 7.5mm, 8 : 6.7mm, 9 : 製品板厚 PlateThickness, ※6 P : 製品分析 Product Analysis, 温度 Temperature °C °F
※7 N : 焼準 Normalized, Q : 焼入れ Quenched, T : 焼戻し Tempered, CR : Controlled Rolled, NIC : NIC Process/TMC Process, CLC : CLC Process/TMC Process, AR : As Rolled, TMR : TMR Process/TMC Process, NR : Normalizing Rolled
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KIMITSU WORKS

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鋼材検査証明書
INSPECTION CERTIFICATE

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

証明書番号 CERTIFICATE No. : P-09818
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発行年月日 DATE OF ISSUE : 2010-10-25
1001 2**DM***** *****CEW**
需要家管理番号 CUSTOMER'S CONTROL No. : E3001P07Q0 E07

寸法 DIMENSION mm,":inch,':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION	引張試験 TENSILE TEST GL	降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	%	BENDTEST DIAM	LOCATION ORIENTATION	衝撃試験 IMPACT TEST 2V - 50F FT. LB SIZE	平均値 AVG	個々値 EACH	HBV		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	T.Al	Ceq.1	材質状態 CONDITION OF SUPPLY
																		×100	×100	×100	×1000	×1000	×100	×100	×100	×100	×100	×100	×100	×100	
																			N	TE3	TE1		SN	CA	B	TI		Pcm	Sol. Al	Ceq.2	
03			G7547												293	AVG		15	38	146	9	2	2	2	2	0	13	0	32	40	
1'X96.5'X480'	1	5958	55586	879270316	TC	53	76	31			TL	F	297		303	154			32	2	6		0	13	2	0					
															295																
																	P	15	38	144	9	2	2	2	2	0	14	0		40	
																			35		6			19	0	0					
04			G7491	TESTED-PL											297	AVG		16	36	143	9	1	2	2	2	0	12	0	23	40	
1'X120.5'X480'	1	7442	55154	879270405	TC	53	76	32			TL	F	295		302	151			32	2	6		0	9	2	0					
															285																
																	P	15	37	143	8	2	2	2	2	0	11	0		40	
																			34		6			15	0	0					
04			G7491												297	AVG		16	36	143	9	1	2	2	2	0	12	0	23	40	
1'X120.5'X480'	1	7442	55154	879270406	TC	53	76	32			TL	F	295		302	151			32	2	6		0	9	2	0					
															285																
																	P	15	37	143	8	2	2	2	2	0	11	0		40	
																			34		6			15	0	0					

注釈 NOTES
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※3 RA : 絞り Reduction of Area, YR:降伏比 Yield Ratio, ※4 A:合格 Acceptable, ※5 F:標準寸法 FULL SIZE, 2:2.5mm, 3:3.3mm, 4:3.33mm, 5:5.0mm, 6:6.67mm, 7:7.5mm, 8:6.7mm, 9:製品板厚 PlateThickness, ※6 P:製品分析 Product Analysis,
※7 N:焼準 Normalized, Q:焼入れ Quenched, T:焼戻し Tempered, CR: Controlled Rolled, NIC: NIC Process/TMC Process, CLC: CLC Process/TMC Process, AR: As Rolled, TMR: TMR Process/TMC Process, NR: Normalizing Rolled
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温度 Temperature °C °F

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1001 2**DM*****
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寸法 DIMENSION mm,':inch,':feet	枚数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION GL ※1	引張試験 TENSILE TEST 降伏点 YS YP 0.2% KSI	引張強さ TS KSI	伸び EL %	% ※3	IMPACT TEST LOCATION ORIENTATION SIZE	衝撃試験 IMPACT TEST 2V - 50F FT. LB 平均値 AVG	個々値 EACH	HBW	化学成分 CHEMICAL COMPOSITION % C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	TiAl	Ceq. 1	熱処理 CONDITION OF SUPPLY
10 2'X121'X480'	1	14943	G7489 55119	TESTED-PL 879271009	TC	50	75	36		TLF	257	247 257 267	AVG 147	16	38 34	143 2	9 6	2	2 0	2 9	2 0	0 0	13	0	25	40	
														P16	38 34	142	9 6	2	2	2 13	2 0	0 0	13	0		40	
10 2'X121'X480'	1	14943	G7489 55120	TESTED-PL 879271010	TC	52	75	34		TLF	267	274 266 261	AVG 148	16	38 34	143 2	9 6	2	2 0	2 9	2 0	0 0	13	0	25	40	
														P16	38 34	142	9 6	2	2	2 13	2 0	0 0	13	0		40	
TOTAL	131	1007886																									

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

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

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Head of Department
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*****CEW**
E3001P07Q0 E07

寸法 DIMENSION mm, ":inch, ':feet	員数 QUANTITY	質量 MASS KG	製鋼番号 CAST No. / 試験番号 TEST No.	製品番号 PLATE No.	LOCATION ORIENTATION ※1	引張試験 TENSILE TEST 耐力降伏点 YS YP 0.2% KSI	引張強さ TS	伸び EL %	% ※3	BEND TEST	LOCATION ORIENTATION ※1	SIZE	衝撃試験 IMPACT TEST 2V - 50F FT.LB 平均値 AVG	個々値 EACH	HBW	C ×100	Si ×100 / N	Mn ×100 / TE3	P ×1000 / TE1	S ×1000	Cu ×100 / SN	Ni ×100 / CA	Cr ×100 / B	Mo ×100 / TI	Nb	V / Pcm	TAl / Sol. Al	Ceq. 1 / Ceq. 2	供給条件 CONDITION OF SUPPLY ※7
				CHEMICAL COMPOSITION % : 'N' X10000																									
				CHEMICAL COMPOSITION % : 'SN' X1000																									
				CHEMICAL COMPOSITION % : 'TE3' X100																									
				LADLE TREATMENT : VACUUM DEGASSED																									
				SULPHIDE SHAPE CONTROL																									

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

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

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

MTR APPROVED — EDMONTON EXCHANGER

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

AY40039027742

edmonton exchanger
& manufacturing ltd.

CERTIFICATE OF COMPLIANCE

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

Customer RJV GASFIELD LTD. PO 2675 Work Order C87884 Date 2011/01/25 CofC# 22012 Page 1 of 1

Item#	Description	Qty	Heat#	Form. Proc.
D87884-3	DISHED REPAD(S) - 0.3750" NOM X 10" OD (Material Spec: SA 516-70 Normalized)	1	4981K-48327	1
		11	344650-33444	-

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

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, Addenda July 1, 2010.

Supplementary Examination - Items

JAN 28 2011

ESSAR Steel Algoma Inc.

105 West St., Sault Ste. Marie, Ontario, Canada, P6A 7B4

CUSTOMER PURCHASE ORDER NUMBER	ENTRY DATE	SHIP DATE	TALLY NUMBER	SHIPPERS NUMBER	CARRIER		MILL ORDER
E10723-J1010ER	2010/05/18	2010/07/08	184308	-	BCOL	-865121	62663

CHARGE TO CUSTOMER NAME & ADDRESS

EDMONTON STEEL PLATE
5545 - 89TH STREET
EDMONTON, ALBERTA
T6E 5W9

SHIP TO CUSTOMER NAME & ADDRESS

EDMONTON STEEL PLATE
SWITCH Z057 / EAST EDMONTON
CLOVER BAR, AB

MILL TEST REPORTS

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES.

M. MCLEAN
MANAGING METALLURGIST

CUSTOMER SPECIFICATION

HR PLATE - CARBON - ASME SA516 GR 70 (09B) - CVNL 15/12 FT LBS AT -50 F - ALG-STE7 R12 2010-01-15, PER SA20 - ESP-03R2 - HEAT ANALYSIS INCLUDING CE & %B, PRODUCT ANALYSIS INCLUDING %B, SULPHIDE SHAPE CONTROL - FINE GRAIN - PVQ - NORMALIZED - FLATNESS 1/2 A-20 - NORMALIZED 12 MINUTES MIN. @ 1670F

SUPPLEMENTARY INSTRUCTIONS

TEST CERT 1: WHIEMSTRA@EDMONTONEXCHANGER.COM TEST CERT 2: PLA
TE TEST COUPON:

INSP T/R 2010-08-31 SUPPLEMENTAL TO: HEAT 4981K TI=.002%

CUST USE PRESSURE VESSELS 2010/07/09 06:58

THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (705)945-2624 COLLECT FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT.

15483

MEETS EN 10204 3.1
ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ESSARSTEELALGOMA.COM
ALL HEATS FULLY KILLED
HEATS INDICATED WITH (*) FINE GRAINED
HEATS INDICATED WITH (+) MADE IN CANADA WITH DOMESTIC AND NORTH AMERICAN MATERIALS

* P R O D U C T S H I P P E D *

CUSTOMER ITEM 00001 OUR ITEM 001 DIMENSIONS .375 X 96.5 X 480 "

PLATE NUMBER	HEAT-MS	NO. PIECES	WEIGHT	PLATE NUMBER	HEAT-MS	NO. PIECES	WEIGHT
48320	4981K-04	2	9852	48323	4981K-04	2	9852
48325	4981K-05	2	9852	48327	4981K-05	2	9852
48330	4981K-06	2	9852	48331	4981K-06	2	9852
48333	4981K-06	2	9852				

* * * * * * * * * * * * * * * * * * * M E C H A N I C A L P R O P E R T I E S * * * * * * * * * * * * * * * * * * *

TENSILE TESTS:

HEAT	PLATE NUMBER	* SAMPLE * SRCE	GAUGE	* * TEST * * COND	METH	DIR	YIELD KSI	TENSILE KSI	% ELONG	LAB
4981K	48320	166*	.3750	N	.2	T	53.3	76.0	25(8")	ALG
4981K	48323	166*	.3750	N	.2	T	55.1	77.0	25(8")	ALG
4981K	48325	166*	.3750	N	.2	T	54.4	76.0	26(8")	ALG
4981K	48327	166*	.3750	N	.2	T	53.2	74.3	24(8")	ALG
4981K	48330	166*	.3750	N	.2	T	53.0	76.1	24(8")	ALG
4981K	48331	166*	.3750	N	.2	T	53.0	76.0	29(8")	ALG
4981K	48333	166*	.3750	N	.2	T	54.0	76.0	27(8")	ALG

WARNING THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE CHEMICAL ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIRMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

ESSAR Steel Algoma Inc. 105 West St., Sault Ste. Marie, Ontario, Canada, P6A 7B4

CUSTOMER PURCHASE ORDER NUMBER	ENTRY DATE	SHIP DATE	TALLY NUMBER	SHIPPERS NUMBER	CARRIER		MILL ORDER
E10723-J1010ER	2010/05/18	2010/07/08	184308	-	BCOL	-865121	62663

CHARGE TO CUSTOMER NAME & ADDRESS
EDMONTON STEEL PLATE
5545 - 89TH STREET
EDMONTON, ALBERTA
T6E 5W9

SHIP TO CUSTOMER NAME & ADDRESS
EDMONTON STEEL PLATE
SWITCH Z057 / EAST EDMONTON
CLOVER BAR, AB

MILL TEST REPORTS

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES.

M. MCLEAN
MANAGING METALLURGIST

CUSTOMER SPECIFICATION
HR PLATE - CARBON - ASME SA516 GR 70 (09B) - CVNL 15/12 FT LBS AT -50 F -
ALG-STE7 R12 2010-01-15, PER SA20 - ESP-03R2 - HEAT ANALYSIS INCLUDING CE &
%B, PRODUCT ANALYSIS INCLUDING %B, SULPHIDE SHAPE CONTROL - FINE GRAIN - PVQ -
NORMALIZED - FLATNESS 1/2 A-20 - NORMALIZED 12 MINUTES MIN. @ 1670F

SUPPLEMENTARY INSTRUCTIONS
TEST CERT 1: WHIEMSTRA@EDMONTONEXCHANGER.COM TEST CERT 2: PLA
TE TEST COUPON:

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INSP T/R 2010-08-31 SUPPLEMENTAL TO: HEAT 4981K TI=.002%

CUST USE PRESSURE VESSELS 2010/07/09 06:58

* * * * * M E C H A N I C A L P R O P E R T I E S * * * * *

IMPACT TESTS:

HEAT	PLATE NUMBER	SRCE	GAUGE IN	COND	METH	TEST DIR	SIZE	TEMP	FULLSIZE *	FTLB	ENERGY *	AVG*	SPEC	LAB
4981K	48320	166*	.3750	N	CVN	L	3/4	-50F	81	83	81	82	ASTM	ALG
4981K	48323	166*	.3750	N	CVN	L	3/4	-50F	75	71	72	73	ASTM	ALG
4981K	48325	166*	.3750	N	CVN	L	3/4	-50F	83	72	84	80	ASTM	ALG
4981K	48327	166*	.3750	N	CVN	L	3/4	-50F	86	94	83	88	ASTM	ALG
4981K	48330	166*	.3750	N	CVN	L	3/4	-50F	130	81	64	92	ASTM	ALG
4981K	48331	166*	.3750	N	CVN	L	3/4	-50F	81	80	80	81	ASTM	ALG
4981K	48333	166*	.3750	N	CVN	L	3/4	-50F	103	86	68	86	ASTM	ALG

PRODUCT ANALYSIS TESTS:

HEAT	PLATE NUMBER	COND	C / TI	MN / SN	P / N	S / AS	SI / ZR	CR / PB	NI / SB	CU	MO	AL	CB	V	B	DO
4981K	48329		.19 / .002	1.01	.010 / .0070	.009	.31	.02	.14	.03	.01	.045	.000	.014	.0002	.38

* * * * * C H E M I C A L P R O P E R T I E S * * * * *

HEAT (WT %)	C / TI	MN / SN	P / N	S / AS	SI / ZR	CR / PB	NI / SB	CU	MO	AL	CB	V	B	DO
4981K*+	.21	1.03	.010 / .0054	.008	.33	.02	.14	.04	.01	.045	.000	.014		.40

MTR APPROVED EDMONTON EXCHANGER

WARNING THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE CHEMICAL ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIRMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

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: 364442-07.07.10

A08/ Manufacturer's order/ A03 Certificate No.: 354133-002 Sheet: 1/...

A05 Established Inspecting body: DH

A06 Purchaser: EDMONTON STEEL,EDMON A07.1 No. ED10548-J1010-ER
Final receiver: EDMONTON STEEL,EDMON A07.2 No.

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5
B03 Any suppl. requirements ASME-II-A:07+A09
DIL-HÜE-1:R27-2010-01-31

15648

A01-A99 Further commercial information - Concession requests

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate / Test No.	B16 Concession request no.	Date
01	344650	33444-01	1-CJVBX	06.04.10

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	0,3750 x	146,00000 x	480,00000	3381	N	344650	33444-01	
***	1				3381				

B04 Product delivery condition

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

B07-B99 Further information about the product

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

A04 D H Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB
Inspector's stamp

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

A01

Date 08.07.10 PP 1

DILLINGER HÜTTE

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

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INSPECTION CERTIFICATE 3.1.B AS PER EN 10204:1991+A1:1995 + AS PER ISO 10474:1991
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A08/ Manufacturer's order/ A03 Certificate No.: 354133-002 Sheet: 2/...

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:07+A09
DIL-HUE-1:R27-2010-01-31

C10-C29 Tensile test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C10 KSI RP02	C11 RM	C12 A % L0=8IN	C13	C14-C15
01	344650	33444		K1	Q	RT	51,6	74,5	26		

C30-C39 Hardness test

B14 Item. No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/C01	C03 Temp. GR.F	C30 Method of test	C36	C31 Individual values			C32 Mean value
01	344650	33444		K1	O	RT	HBW 5/750	HB	145	145	145	145

C40-C49 Impact test

B14 Item No.	B07.2 Heat No.	B07.1 Rol.plate/ Test No.	B05 Reference (heat) treatment	C01	C02/ C01	C03 Temp. GR.F	C41 Width of test piece	C40 Type of test piece	C44 Testing method	C46 Energy	C45	C42 Individual values AV=FT.LBF			C43 Mean value
01	344650	33444		K1	LV	-51	3/4	CHP-V			AV	139	110	132	127

C70-C99 Chemical composition % - Heat analysis

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

B07.2 Heat	C70	B	CA	AL-T
344650	Y	0,0001	0,0020	0,027

C94 Heat analysis Carbon equivalent / Alloying restrictions

B07.2 Heat 344650 FO-02= 0,37 FO-51= 0,000 FO-55= 0,09 FO-78= 0,04 FO-91= 7,3

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

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

A01

Date 08.07.10 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
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MATERIAL TEST REPORT (MTR)

A10 Advice of dispatch No./ Date of dispatch: 364442-07.07.10

A08/ A03 Manufacturer's order/ Certificate No.: 354133-002

Sheet: 3/...

A05 Established inspecting body: DH

A06 Purchaser: EDMONTON STEEL, EDMON — A07.1 No. ED10548-J1010-ER

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

B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:07+A09
DIL-HUE-1:R27-2010-01-31

C95 Ladle treatment

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

C95 Further information about ladle treatment

ITEM NO.: 01
CALCIUM TREATED

C70-C99 Chemical composition % - Product analysis

B07.2 Heat	B07.1 Test No.	C01	C	SI	MN	P	S	N	CU	MO	NI	CR	V	NB	SN	TI
344650	33444	K1	0,163	0,394	1,15	0,009	0,0014	0,0065	0,022	0,006	0,026	0,035	0,000	0,000	0,001	0,002

B07.2 Heat	B07.1 Test No.	C01	B	CA	AL-T
344650	33444	K1	0,0003	0,0039	0,027

C94 Product analysis Carbon equivalent / Alloying restrictions

B07.2 Heat	B07.1 Test No.	C01						
344650	33444	K1	FO-02=	0,37	FO-51=	0,000	FO-55=	0,09

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

A04 Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

Inspector's stamp

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

A01

Date 08.07.10 PP 1

DILLINGER HÜTTE

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A08/ Manufacturer's order/ A03 Certificate No.: 354133-002 Sheet: 4

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B01 Product: HOT ROLLED PLATES

B02/ Steel design. SA516-70 SA20-S5

B03 Any suppl. requirements ASME-II-A:07+A09
DIL-HUE-1:R27-2010-01-31

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

ITEM NO.: 01
RESULT OF MARKING, SURFACE, SHAPE AND DIMENSIONS: NO REMARKS

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

MTR APPROVED EDMONTON EXCHANGER

A04 DH Manufacturer's mark

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

QM-System: Certification as per ISO 9001

B. BALDAUF
Test House Manager

AHB Inspector's stamp

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

A01

Date 08.07.10 PP 1

RJV GAS FIELD SERVICES

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

PURCHASE ORDER # **2696**

DATE	March 7 ,2011
VENDOR	Edmonton Exchanger
CONTACT	Peter
DATE REQUIRED	3 Phase Separators
JOB NUMBERS	24" Stock Vessels

Item	Quantity	Material Spec.	Description	Nom. Thickness	Min. Head	Mill Test	Q.C. Check	Price
1	30	SA-516-70N	24" X 8' Rolled Shells	1.00"	-	Yes	R	
2	60	SA-516-70N	24" sml's Heads	1.00"	.937"	Yes	R	
3	30	SA-516-70N	Repad Dished	3/8"		Yes	R	
4	1	SA-516-70N	48" long 3/8" material rolled to 24" ID	3/8"		Yes	R	

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

Authorized Signature

RJV GAS FIELD SERVICES

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

PURCHASE ORDER #	2675
DATE	January 11,2011
VENDOR	Edmonton Exchanger
CONTACT	Peter
DATE REQUIRED	3 Phase Separators
JOB NUMBERS	24" Stock Vessels

Item	Quantity	Material Spec.	Description	Nom. Thickness	Min. Head	Mill Test	Q.C. Check	Price
1	25	SA-516-70N	24" X 8' Rolled Shells	1.00"	-	Yes	✓	
2	50	SA-516-70N	24" sml's Heads	1.00"	.937"	Yes	✓	
3	12	SA-516-70N	Repad Dished	3/8"		Yes	✓	

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

Authorized Signature

RJV GAS FIELD SERVICES

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

PURCHASE ORDER #	**2721**
DATE	May 12,2011
VENDOR	V.E.G. Oilfield Supply
CONTACT	ALL
DATE REQUIRED	24" 3 Phase Separators
JOB NUMBERS	

Item	Quantity	Material Spec.	Description	Nom. Thickness	Min. Head	Mill Test	Q.C. Check	Price
1	6	SA-105	4" #600 ANSI RFWN	XXH	-	-		
2	12	SA-105	3" #600 ANSI RFWN	XXH	-	-		
3	15	SA-105	2" #600 ANSI RFWN	XXH	-	-		
4	15	SA-105	3/4" N.P.T. Full Cplg.	#6000	-	-		
5	3	SA-105	1/2" N.P.T. Full Cplg.	#6000	-	-		
6	3	SA-234-WPB	2" 90° elbow	XXH	-	-		

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

Authorized Signature

W

RT -2

Certified By

PJ GAS FIELD SERVICES

Vegreville, Alberta
Phone (780)632-7774

A#607661

U... NAME

Vert. 3 Phase Separator

M.A.W.P. Internal	HYDRO TEST	DESIGN TEMP.
1440 p.s.i.	2160 p.s.i.	129 °F
9929 Kpa.	14892 Kpa.	54 °C

C.R. NUMBER	SERIAL NO.
T5394.231	12135

CORR. ALLOW.	HEAT TREATMENT	SIZE
3.17 mm	Nil	610 X 2438 mm

SHELL MAT'L	HEAD MAT'L	WEIGHT
SA-516-70	Top-SA-516-70 Bottom-SA-516-70	1273 Kg.

SHELL THICK.

25.4 mm

HEAD THICK.

Top - 23.8 mm
Bottom - 23.8 mm

MIN. DESIGN METAL TEMPERATURE

TEMPERATURE		@	PRESSSURE	
-20	°F	@	1440	p.s.i.
-29	°C	@	9929	Kpa.

DATE MFG. May 2011

ACUREN ISO 9001:2000

RADIOGRAPHIC TESTING REPORT

R-218089

PAGE 1 OF 1

CLIENT RJV
ATTENTION
ADDRESS Dave
PROJECT Vessel- Spot
WORK LOCATION Vegreville

DATE June 8/11
ACUREN JOB # 231-56647-84
PO/WO # Serial# 12135
PROCEDURE # RT-6016
ACCEPTANCE STANDARD ASME SEC VIII DivI UW51 2010

MATERIAL TYPE P1
FILM BRAND Agfa
RADIATION SOURCE ☑ IR 192 ☐ Co 60 ☐ X-RAY
57 Ci KV
FOCAL SPOT 0.14" MM/IN (IN circled)

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

	IDENTIFICATION	PIPE DIA.	PIPE SCH	FILM TYPE	REIN.	TECH #	SOD (D)	OFD (t)	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	*	DEFECT LOCATION & REMARKS	ACC	REJ
1	SP1 0-6	24"	1"	DS	1/8"	2	12"	1"	1									M,K		✓	
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

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

CLIENT REPRESENTATIVE Wes PRINT — [signature] SIGNATURE

TECHNICIAN (SIGN) B. O[signature]

PRINT NAME: Brad Osmond 1ST TECHNICIAN — M. Lederer 2ND TECHNICIAN/ASSISTANT

CGSB LEVEL II SNT LEVEL II — CGSB LEVEL ____ SNT LEVEL ____

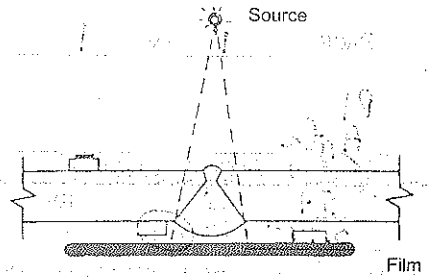
CGSB REGISTRATION # 3161 — CGSB REGISTRATION # ____

FILM USED		FILM SIZE
1	PCS	4½x8½
	PCS	
	PCS	
	PCS	
	PCS	
	PCS	

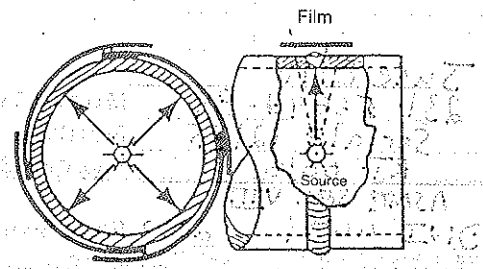
DTR # A 354316

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

White – Client Copy Canary – Office Copy Pink - Technician Copy Golden Rod - Office Copy



Technique "1"
SWE-SWV



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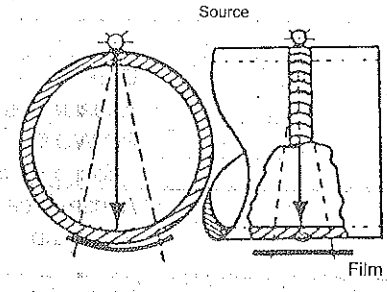

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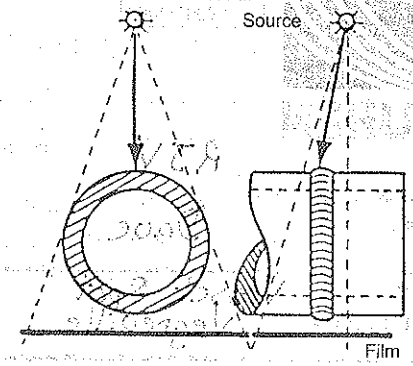

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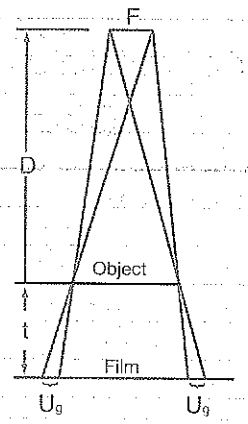
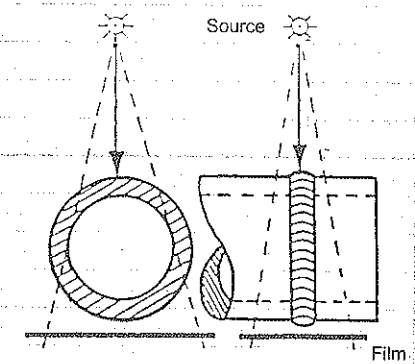
DWE-DWV



DEFECT LEGEND		OTHER LEGENDS	
CRK	Crack	SWE	Single Wall Exposure
LF	Lack of Fusion	DWE	Double Wall Exposure
IP	Incomplete Penetration	SWV	Single Wall Viewing
P	Porosity	DWV	Double Wall Viewing
S	Slag	EXP	Exposures
UC	Undercut	REIN	Reinforcement
CR	Concave Root	DIA	Diameter
EP	Excessive Penetration	SOD	Source Object Distance
BT	Burn Through	OFD	Object to Film Distance
HB	Hollow Bead		
PH	Pinhole		



Technique "5"
DWE-DWV

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

$$U_g = Ft/D$$

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

DISCLAIMERS

SCOPE OF SERVICE

The agreement of Acuren to perform the Services extends only to those Services provided for in writing. Under no circumstances shall such Services extend beyond the performance of the requested Services provided for in writing and the preparation of reports or similar documents reflecting the data obtained or the opinion formulated on the basis of such Services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinion or observations of the examiner/engineer and are not intended, nor can they be construed, as representations or warranties as to the actual circumstances. Acuren does not assume any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, repair and use decisions as a result of the data or other information provided by Acuren. In no event shall Acuren's liability in respect of the Services referred to herein exceed the amount paid for such Services.

STANDARD OF CARE

In performing the Services provided, Acuren uses the degree of care and skill ordinarily exercised under similar circumstances by others performing such Services in the same or similar locality. If at any time during the performance of the Services or within one (1) year thereafter, Purchaser discovers that the Services do not conform to the warranty, Acuren shall, upon receipt of written notice from Purchaser, promptly provide technicians/engineers to reperform the Services to the extent necessary to conform to the warranty and Acuren shall have no other liability whatsoever. No other warranty, expressed or implied, is made or intended by Acuren.

LIMITATIONS OF LIABILITY

Nothing in this Agreement shall be construed to mean that Acuren assumes any liability on account of injury to persons or property, including death, except those directly caused by negligent acts of Acuren or its employees and that Purchaser's own responsibility for injury to persons or properties while on or about Purchaser's property or equipment is in no way affected by this Agreement. Acuren shall not be held responsible or liable for any loss, damage, detention or delay caused by accidents, strikes, labour shortages, lock-outs, fire, flood, severe weather conditions, acts of civil or military authorities, or by insurrection or riot, or by any other cause that is unavoidable or beyond Acuren's control or in any event for consequential damages including, without limitation, downtime, loss of use or loss of profits.

ISO 9001:2000

ACUREN

RADIOGRAPHIC TESTING REPORT

R-205021

PAGE 1 OF 1

CLIENT: RJV
ATTENTION:
ADDRESS: Dave
PROJECT: Vessel- Long Seam
WORK LOCATION: Vegreville

DATE: May 10/11
ACUREN JOB #: 231-56647-04
PO/WO #: Serial # 12135
PROCEDURE #: RT-0016
ACCEPTANCE STANDARD: ASME SEC VIII Div I 4w51 2010

MATERIAL TYPE: PI
FILM BRAND: Agfa
RADIATION SOURCE: ☑ IR 192 ☐ Co 60 ☐ X-RAY
59 (Ci) KV
FOCAL SPOT: 0.14" MM / IN

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

	IDENTIFICATION	PIPE DIA.	PIPE SCH	FILM TYPE	REIN.	TECH #	SOD (D)	OFD (t)	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP		*	DEFECT LOCATION & REMARKS	ACC	REJ
1	LS1 0-15	24"	1"	D5	1/8"	1	20"	1"	7										M,K		✓	
2	15-30	↓	↓	↓	↓	↓	↓	↓											↓		✓	
3	30-45																				✓	
4	45-60																				✓	
5	60-75																				✓	
6	75-90																				✓	
7	90-END																				✓	
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						

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

SIGNATURES

CLIENT REPRESENTATIVE: Wes (PRINT) — (SIGNATURE)

TECHNICIAN (SIGN): B. Osmond

PRINT NAME: Brad Osmond (1st TECHNICIAN) — M. Lederer (2nd TECHNICIAN/ASSISTANT)

CGSB LEVEL II SNT LEVEL II — CGSB LEVEL ____ SNT LEVEL ____

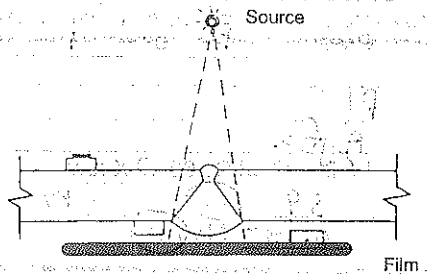
CGSB REGISTRATION # 3161 — CGSB REGISTRATION # ____

FILM USED: 7 PCS — FILM SIZE: 4½x17 PCS

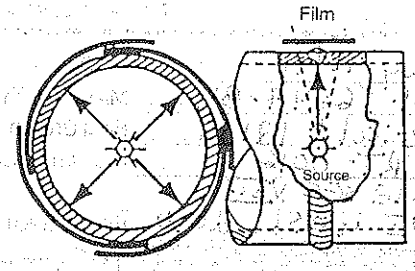
DTR # A 351192

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

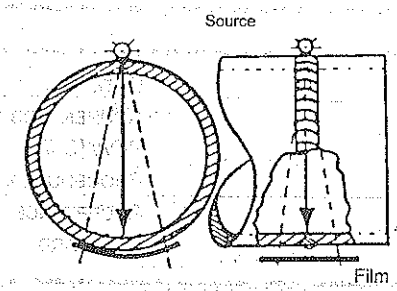
White – Client Copy | Canary – Office Copy | Pink - Technician Copy | Golden Rod - Office Copy



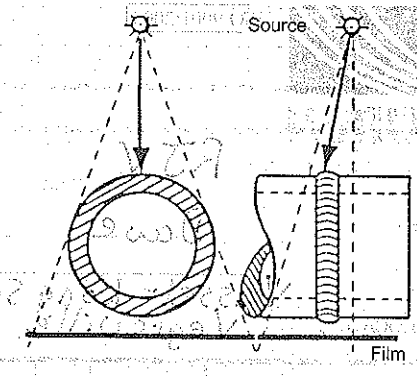
Technique "1"
SWE-SWV



Technique "2"
SWE-SWV



Technique "3"
DWE-SWV



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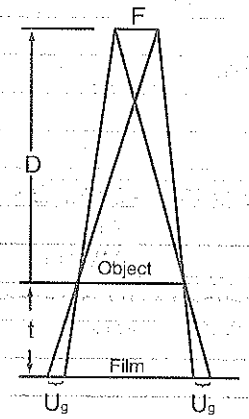
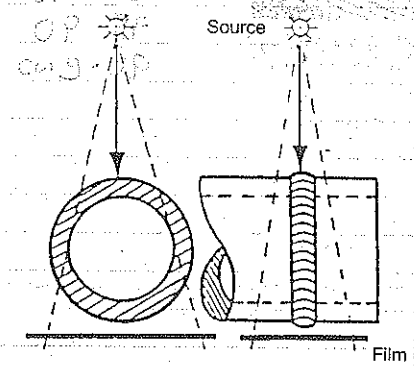
DWE-DWV



DEFECT LEGEND		OTHER LEGENDS	
CRK	Crack	SWE	Single Wall Exposure
LF	Lack of Fusion	DWE	Double Wall Exposure
IP	Incomplete Penetration	SWV	Single Wall Viewing
P	Porosity	DWV	Double Wall Viewing
S	Slag	EXP	Exposures
UC	Undercut	REIN	Reinforcement
CR	Concave Root	DIA	Diameter
EP	Excessive Penetration	SOD	Source Object Distance
BT	Burn Through	OFD	Object to Film Distance
HB	Hollow Bead		
PH	Pinhole		



Technique "5"
DWE-DWV

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

$$U_g = Ft/D$$

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

DISCLAIMERS

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(A) 607667

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 êtré envoye au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

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

Pressure vessel/ *Appareil*

Type/ *Genre*	Overall Length/*Longeur totale*	Serial No./ *N° de série*	Year built/Année de fabrication
Vertical 3 Phase Separator	**2438 mm sm/sm**	**12135**	**2011**
Provincial Registration No. – C.R.N./N° d'enregistrement provincial - N.E.C. **T5394.231**		National Board No./ *N° National Board* **N/A**	Drawing No./ *N° de dessin* **V05-413**

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.

	ASME	Division	Addenda/*Supplément*	Code case No. *N ° de cas*
The design, construction and workmanship conform to CSA B51. *La conception, la construction et la façon sont conformes à ACNOR B51.*	Section VIII 2007 Edition	1	2009b	N/A

Manufacturer's partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report:
Les rapports partiels du constructeur adqéuatement identifiés et signés par les inspecteurs authorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport:

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

Shell/ *Virole*

Description	Material *Matériau*	Thickness *Épaisseur*	Corr. Allow. *Surépais. de corr.*	Diameter *Diamètre*	Longitudinal Joints *Joints longitudinaux*			P.W.H.T. *Traitement therm*		Girth Joints *Joints de circonférence*		Number of courses *Nombre de sections*
					Type	R.T. *Radiog.*	Efficiency *Efficacité*	Temp.	Time *Durée*	Type	R.T. *Radiog.*	
Shell	**SA-516-70N**	**25.4mm**	**3.17mm**	**610mm**	**1**	**Full**	**100%**	**N/A**	**N/A**	**1**	**Spot**	**1**
											70%	

Heads/ *Tetes*

Description	Material *Matériau*	Min. Thickn. *Épais minim.*	Corr. Allow *Surép. Corr.*	Crown. Radius *Rayon couron.*	Knuckle Radius *Petit rayon*	Ellipse Ratio *Rapp. ellipse*	Conical Apex Angle *Angle conique*	Hemisph. Radius *Ray. Hémisph*	Flat Diameter *Diam.plat*	Side to pressure *Côte sous pression*
Top	**SA-516-70N**	**23.8mm**	**3.17 mm**	----------	----------	**2.1**	----------	----------	----------	**Concave**
Bottom	**SA-516-70N**	**23.8mm**	**3.17 mm**	----------	--------	**2.1**	----------	----------	----------	**Concave**

Removable bolts used (describe other fastenings) *Boulons amovible utilisés (décrire tout autre attache)*	Mat'l Spec./ *Spéc. du mat.*	Grade	Size/ *Dimension*

Pressure - Temperature/ *Pression - température*

Pressure Vessel Part *Partie de l'appareil*	Constructed for max. allowable working pressure *Construit pour une pression maximale de marche permise*	At max. temp. *A une temp. max.*	Min. Temp. (when less than -29°C) *Temp. min. (inférieure à -29°C)*	Test pressure (hydro-pneumatic or combination) *Pression d'épreuvre (hydro-pneumatique ou combinaison)*
Vessel	9928 Kpa	54°C	-29°C	14,892 Kpa

Tube Section/ *Faisceau tubulaire*

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

Jacket/ *Chemise*

Type of jacket/ *Genre de chemise*	Jacket closure *Fermeture de chemise*	Proof Test *Pression d'épreuve*	Heating Surface *Surface de chauffe*	Sketch/ *Schéma*

Safety Valve Outlets/ *Soupapes de sûreté*

Number/ *Nombre*	Dimension	Location/ *Endroit*
1	60.3mm	Shell

Nozzles and Openings/ *Tubulures et ouvertures*

Purpose/ *But*	Number *Nombre*	Dimension	Type	Material *Matériau*	Nominal Thickness *Épaisseur nominale*	Reinforcement material *Matériau de renfort*	How attached *Genre d'attaches*	Location/ *Endroit*
Inlet/Outlet	2	114.3mm	CL600	SA-105/SA-106-B	17.12mm	SA-516-70	UW16.1{c}	Top Head/Shell
L.L.S.D./H.L.S.D./L.L.C	4	88.9mm	CL600	SA-105/SA-106-B	15.24mm	SA-516-70	UW16.1{c}	Shell
Dumps/Drain/PSV/Spare	5	60.3mm	CL600	SA-105/SA-106-B	11.07mm		UW16.1{c}	Shell/bottom Head
Sight Glass / Temperature Indicator	5	26.7mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell
Pressure Indicator	1	21.3mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell

Supports/ *Supports*

Skirt/ *Jupe* Yes/ *Oui* No/ *Non*	Lugs/ Oreilles *No./ Nbre*	Legs/ Pieds *No./ Nbre*	Other/ *Autres* (Description)	Attached/ *Attaches* (Where and How/ *Méthode et endroit*)
☒ ☐	No	No	N/A	Welded to bottom head

Remarks/ *Observations* (Cubical capacity/ Volume)

Volume-(.76 cubic meters)
Except from impact test requirements as per UG 20(f) 1 to 5
Hydrostatically tested in the Vertical Position
Nozzel to shell weld is 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 T5394.231

Manufacturer
Constructeur RJV Gasfield Services

Signature _____ Date JUN 14 2011

Certificate of Shop Inspection/ *Certificat d'inspecton en usine*

I, the undersigned, a duly authorized Boiler and Pressure Vessel Inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by
employé par ABSA

of/ *de* Alberta
have inspected the above vessel and state that to the best of my knowledge and belief, the manufacturer has constructed the vessel in accordance with the Provincial registration CRN T5394.231
and the requirements of standard CSA B51.
ai inspecté l'appareil précité et autant que je sache, crois que le constructeur a construit l'appareil en accord avec l'enregistrement provincial NEC _____
et les exigences de la norme ACNOR B51.

Inspector's Name
Nom de l'inspecteur JASON REINHART NB 12899A AB248A

Signature _____ Date JUNE 14/11

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 _____
have inspected the items not covered by the Shop Inspection Certificate 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.
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.

Inspector's Name
Nom de l'inspecteur _____

Signature _____ Date _____