

**STETTLER OIL & GAS EQUIPMENT
EQUIPMENT LISTING**

CLIENT: TRIDENT EXPLORATION CORP.

PROJECT: 6-615 **LSD:** 02-20-41-02 W4

SEPARATOR: MANUFACTURER: UNIVERSAL

A#: 549662 SER. #: 06-01-54 CRN#: R4871.231 YR.BLT 2006
MAX.W.P. 1440 PSI MANUFACTURER'S Q.C. BOOK AVAILABLE.
U: WRT-2 SIZE: 16" X 8' INLET: 3" OUTLET: 3" OFFSET

FUEL GAS SCRUBBER: MANUFACTURER: LOTECH

YR.BLT. 2006 MAX W.P. 285 PSI CRN# OH2422.21345
SERIAL# 1014.2103 SIZE: 4.5"x 30"

METER RUN: MANUFACTURER: NUFLO

SERIAL#: XJ54632-12 INSPECTION #: NUFLO SCH: 80
CONNECTIONS 2" X 600 ANSI AGA FIG: 3C THREADED
WO# XJ54632 C/W BYPASS

METHANOL PUMP: MANUFACTURER: TEXSTEAM

P/N# MX331ABWO2 SERIAL# 44166901016
C/W NUPRO RELIEF SET@ 1440 PSI JUNE 27/06

METHANOL TANK: MANUFACTURER: CLEMMER TECHNOLOGY

CAPACITY: 500 GALS. C/W WYE STRAINER DUAL S/N#J005

LEVEL CONTROLLER 2ND PHASE:

MANUFACTURER: NORRISEAL MODEL # 2SM60NSRDF-AG
TYPE: 1001A SERIAL #: 05347

DUMP VALVE 2ND PHASE: MANUFACTURER: NORRISEAL

MODEL # S36TTV-9AA TYPE: 2220 SERIAL #: 03976
PORT SIZE: 1"

FUEL GAS REGULATOR: MANUFACTURER: FISHER

MODEL# 627 SPRING RANGE: 35-80 PSI ORFICE: 1/8" SST
SERIAL# 17632882

INSTRUMENT REGULATORS: MANUFACTURER: FISHER (3)
(2)TYPE: 67CFR: 362 SPRING RANGE: 0-35 PSI
(1)TYPE: 67CFR: 601 SPRING RANGE: 0-125 PSI

SEPARATOR RELIEF: MANUFACTURER: TAYLOR
MODEL # 8200-1 SERIAL #: 26561-74 SET PRESSURE: 1440 PSI
DATE SET: 03/06 CAPACITY: 5181 SCFM INLET: 1"OUTLET: 1"
ORFICE SIZE: E

SCRUBBER RELIEF: MANUFACTURER: TAYLOR
MODEL# 8200-1 SERIAL #: 28451-10 SET PRESSURE: 150 PSI
DATE SET: 05/06 CAPACITY: 582 SCFM INLET: 1" OUTLET: 1"
ORFICE SIZE: E

HIGH LEVEL SHUTDOWN: MANUFACTURER: SOR
MODEL: 1530B-G2A-JO-PS SERIAL# 051004804

SEPARATOR DRAIN VALVE: MANUFACTURER: BALON
TYPE: BALL 2000 PSI SCREWED

ISOLATION VALVE: MANUFACTURER: NUTRON TYPE: BALL
FIG# T3F20S30BZ SERIAL# 535000052
FIG# T3R20S30BZ SERIAL# 547998

INLET E.S.D.: MANUFACTURER: EL-O-MATIC
MODEL: ESO350-U2AO2A 27K2 SERIAL# 125917
C/W NUTRON VALVE: FIG# T3R20S30BZ LOT# 396456

SWING CHECK: MANUFACTURER: CROWN
SERIAL# 135127-107 2000 PSI

FLOW METER: MANUFACTURER: SIMARK
TURBINE: P/N# 5.1001H SERIAL# 53855
MONITOR: MODEL: SMRT-101 SERIAL# 138242

WYE STRAINER: MANUFACTURER: ALTA
SERIAL# M1921

BACK PRESSURE VALVE: MANUFACTURER: BIRD
P/N# 770-7702-2-C-15 P.R.10-1500 SERIAL# C-15

CUSTOM CONTROL SENSOR:
MANUFACTURER: CCS TELOMATIC CONTROLS
MODEL: 6900GE18 SERIAL# 260659-0306-7

COMPRESSOR: MANUFACTURER: EAGLE
NO. BV850207 SERIAL# F0601064077 SPEC: 35E362Q786H1
CAT NO. M7037T H.P: 2//1.5 VOLTS: 230/460/190/380 AMPS:
5.6/2.8/5.2/2.6 R.P.M: 1740//1440 HZ: 60//50 SERF: 1.00
RATING: 40CAMB-CONT USEABLE@ 280V 5.8 FRAME: 145T
PH: 3 CLASS: B DES: B CODE: K NEWA NOMEFF 84 % PF 81%

COMPRESSOR CONTROL: MANUFACTURER: HOFFMAN
CAT# A14128CHQRFQ

PRESSURE SWITCH: MANUFACTURER: CVS
SERIAL# PP5334 SET@ 100 PSI JUNE 27/06

MEMBRANE AIR DRYER: MANUFACTURER: SPX HANISON
MODEL: HMD20-3 SERIAL# 5163115 MAX PRESS. 300 PSI/21 BAN
MAX TEMP:150 DEGRESS FARENHEIT/66 DEGREES CELCIUS

DRYER: MANUFACTURER: SPX DELTECH
MODEL: DF20-B-4DP SERIAL# 0605 CARTRIDGE# FE20-B
MAX W.P 250 PSI TEMP: 150 DEGREES FARENHEIT

HEATER: MANUFACTURER: CISCAN SERIAL #: 317287
c/w cables, grill, thermostat, hood and vented. SIZE: 24" X 24"

SKID SIZE: 8' x 14'

BUILDING SIZE: 8' x 8'

COMMENTS:

TEC#3165

IJD ELECTRICAL INSPECTIONS PERMIT #: SC06-E84

3" LOADLINE VALVE: MANUFACTURER: NUTRON

ENVIROBOX: GARDNER

SCADA:

MANUFACTURER: SIMARK

RTP: TYPE: RAYD1UOX CD 0605

PANEL BOX: MANUFACTURER: SIMARK CONTROLS

P/N# CM-SCL-RP200-100 S2Z2-N4 WO# 16636 CAT# CSD242416

SERIAL# WO-16636-2 DATE: 07/06/06

DIGITAL INDICATORS: MANUFACTURER: SIMARK

MODEL: 4102-DM.22F101U-L SERIAL# T007469

SUPPLY: 9-30VDC 384MW C/W PANAM MANIFOLD

316SS WP 6000 PSI K8101 SERIAL# 60312583

C/W 2 SOLAR PANELS MODEL: BP350U 52110020

SERIAL# 4436945 SERIAL# 4436914

C/W 2 BATTERIES MANUFACTURER: MAXCELL P/N# 8A27

STETTLER OIL & GAS EQUIPMENT
 QUALITY SYSTEM MANUAL

REVISION: 1

DATE: 01/06/15

SECTION 9 PAGE 3 OF 3

EXHIBIT 9.1 PRESSURE PIPING EXAMINATION AND INSPECTION SHEET

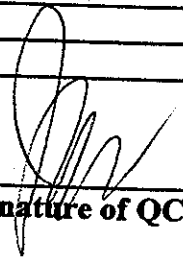
PRESSURE PIPING EXAMINATION AND INSPECTION SHEET				
NO.	FUNCTION	MANUAL REFERENCE	SIGNATURE OR INITIAL AND DATE	
			Q.C. INSPECTOR	OWNER'S INSPECTOR
			JOB NUMBER: 6-615	
1	DRAWINGS: ABSA registration over 0.5m ³ . Approved by Owner. Approved for Construction (signed & dated).			
2	ABSA Safety Codes Officer (when required) and Owner's Inspector notified.	7.2, 7.3		
3	Registered Welding Procedures, Q.C. Manual and Forms available at site. Job File started.	8.4, 9.3		
4	Welders qualified for Weld Procedures and have valid Performance Qualification cards. Welders Log completed. WPS reviewed with welders.	9.2(a) 9.3(a)		
5	Material checked against P.O., drawings, and specifications. Identification confirmed. Color coding applied.	10.3		
6	Sample of each welder's work examined, including root spacing, alignment, cleaning, joint preparation, preheat and electrode control.	8.3 8.6		
7	Nondestructive Examination completed. Reports and radiographs reviewed, signed by Level II or III, Radiograph I.D. detailed on drawings.	10.3(f)		
8	Visual Examination of all completed welds. Welders I.D. stamped and/or recorded on drawings.	12.2		
9	Heat Treatment verified and recorded on drawings.	10.3(g)		
10	Each system checked against specifications and drawings before pressure test.	13.3		
11	All deficiencies recorded and signed off by Q.C.I. and Owner's Inspector before pressure test.	9.3(d) 9.3(f)		
12	Pressure Test checked. Gauge calibration verified, gauge # recorded.			
13	System checked after test. Deficiencies recorded and corrected. (Exhibit 15.2)	15.4 / 14.3		
14	Construction and test data reports prepared and signed by Q.C.I. and Owner's Inspector. (AB-83)	15.4		
15	Declaration form submitted to ABSA. (AB-81)	9.3(g)		
16	As built drawings accepted by Owner.	9.3(g) 9.3(h)		

Hold points indicated by an asterisk *

Stettler Oil & Gas Equipment
Hydro-Test Report

Customer: TRIDENT EXPLORATION CORP.
Date: June 24/06
Project No.: 6-615
Description: 16 X 96 1440 Flange Ansi: 3"-600
Serial No.: 06-01-54 A#: 549662
Tank SN#: _____
Project: Threaded: Flanged:
Pipe: 1" Heat #: 530195 2" Heat #: 736435
Test Pressure: 2160 PSI Working Pressure: 1440 PSI
Test Gauges: Gauge #: 42347 Gauge #: 51520
Time In: 11:30 AM Time Out: 11:45 AM
Duration Time at Test Pressure: 15 min
Test Performed by: B. Rymaluk Results: Good
Test Witness By Customer Inspector: _____

Comments: _____



(Signature of QCI)

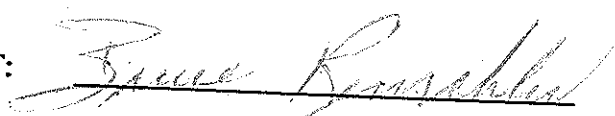
(Witness #1)

(Witness #2)

HYDRO PRESSURE TEST PROCEDURE

1. Display (High Pressure Test in Progress) signs. ✓
2. Insure all blind flanges are properly signed with proper gaskets. ✓
3. Plug all open-ended piping and valves. ✓
4. Isolate or remove PSV's and low-pressure instruments. ✓
5. Use 2 calibrated gauges. ✓
6. Hydro test to 1.5 times working pressure. ✓
7. Water must stand 15 minutes prior to test. ✓
8. Test must be stable for no less than 15 minutes, check for leaks on all fittings. ✓
9. Depressurize slowly, in a safe manner. ✓
10. Remove test valve from vessel. ✓
11. Install and tighten 2" bull plug. ✓
12. Attach SOG seal to bull plug. ✓

STETTLER OIL & GAS EQUIPMENT:


Signature

OWNER SIGNATURE: _____

JOB#: 6-1015

DATE: June 24/06

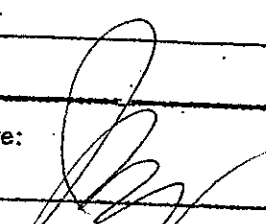
SETTLER OIL & GAS EQUIPMENT
 QUALITY SYSTEM MANUAL

REVISION: 1

DATE: 01/06/15

SECTION 15 PAGE 4 OF

EXHIBIT 15.2 PRESSURE TEST EXAMINATION GUIDE

PRESSURE TEST EXAMINATION GUIDE		Q.C. INSP.
JOB NO.: 6-615		
PRESSURE TEST PREPARATION		
1.	All punch list items corrected.	
2.	Test blinds correct thickness.	
3.	All items which could be damaged by test isolated or removed (control valves, safety valves, instruments, expansion joints, etc.)	
4.	Equipment with internals (ie. filters) that could be damaged, isolated as required.	
5.	Vents and drains correctly installed.	
6.	Open and Closed position of all valves verified.	
7.	Shipping bars in place - bellows.	
8.	Hanger stops in place.	
PRESSURE TEST COMPLETION		
1.	All temporary blinds (blanks) removed.	
2.	Temporary gaskets changed for correct gaskets.	
3.	Temporary supports removed.	
4.	Shipping bars removed from bellows.	
5.	Spring hanger stops removed - cold setting checked.	
6.	Safety valves - "UV" or "V" symbol and correct set pressure and capacity installed.	
7.	Safety valve vents are correct size - adequately supported - drain holes and or weather hoods installed.	
8.	Screens for pumps and compressors installed (initial start-up and permanent screens).	
Q. C. Inspector Signature: 		Date: June, 24/06

JARON WOLFF PROCESS CONTROLS LTD.
9535 - 42 AVENUE, EDMONTON, ALBERTA T6E 5R2

CERTIFICATE# 42347

FOR: MDI INDUSTRIAL SALES INC.
9868 - 33 AVENUE, EDMONTON, ALBERTA, T6N 1C6

ORDER NO.	16067	AMBIENT TEMPERATURE	20C
SERIAL NUMBER	JW041013-4	DEADWEIGHT	SN# 8604
DIAL SIZE	4" FIMA	TEST MEDIUM	OIL
PRESSURE RANGE	0-5000 PSI	MAXIMUM ERROR	+30 PSI
SUB DIVISIONS	500 PSI	DATE	December 10, 2004
CONNECTION	1/2" NPT	LOCATION TESTED	9535 - 42 AVE
INSPECTOR	G.J.P. WOWK	EDMONTON, ALBERTA, T6E 5R2	

THIS GAUGE IS CERTIFIED TO MEET AND/OR EXCEED THE REQUIREMENTS AS OUTLINED IN API SPECIFICATION 6A, SEVENTEENTH EDITION, NOVEMBER 1, 1999. IN COMPLIANCE WITH SECTION 7, PARAGRAPH 7.3.2, SUBPARAGRAPH 7.3.2.1, 7.3.2.2, 7.3.2.3, 7.3.2.3a AND 7.3.2.3b. ALSO, API SPECIFICATION 16A, NOVEMBER 1, 1986, SECTION VI, PARAGRAPH B, SUBPARAGRAPH 3, POINTS 3.1, 3.2, 3.3 AND 3.4.

<u>TESTED GAUGE</u>		<u>DEADWEIGHT</u>		<u>UPSCALE ERROR</u>	
0		0		0	
1250	PSI	1250	PSI	0	PSI
2500	PSI	2480	PSI	+20	PSI
3750	PSI	3720	PSI	+30	PSI
5000	PSI	4970	PSI	+30	PSI

TECHNICIAN:  Eric Turcotte

Q.C. Manager:  Lynn Wowk

Invoice: PCL-49411 /JL

**ALL TEST EQUIPMENT IS TRACEABLE TO N.I.S.T. STANDARDS.

**CUSTOMER STANDARD DOCUMENT CS-003.

JARON WOLFF PROCESS CONTROLS LTD.
9535 - 42 AVENUE, EDMONTON, ALBERTA T6E 5R2

CERTIFICATE# 51520
FOR: MDI INDUSTRIAL SALES INC.
9868 - 33 AVENUE, EDMONTON, ALBERTA, T6N 1C6

ORDER NO.	17078	AMBIENT TEMPERATURE	20C
SERIAL NUMBER	JW060504-3	DEADWEIGHT	SN# 6147-26
DIAL SIZE	4" FIMA	TEST MEDIUM	OIL
PRESSURE RANGE	0-5000 PSI	MAXIMUM ERROR	+50 PSI
SUB DIVISIONS	500 PSI	DATE	May 4, 2006
CONNECTION	1/2" NPT	LOCATION TESTED	9535 - 42 AVE
INSPECTOR	G.J.P. WOWK	EDMONTON, ALBERTA, T6E 5R2	

THIS GAUGE IS CERTIFIED TO MEET AND/OR EXCEED MANUFACTURER'S SPECIFICATIONS, FOR 4" & 6" NOUYA FIMA PRESSURE GAUGES, AS OUTLINED IN CUSTOMER STANDARD #018, DOCUMENT CS-018-1 (+/- 1% ACCURACY).

<u>TESTED GAUGE</u>		<u>DEADWEIGHT</u>		<u>UPSCALE ERROR</u>	
0		0		0	
1500	PSI	1500	PSI	0	PSI
2500	PSI	2490	PSI	+10	PSI
3750	PSI	3730	PSI	+20	PSI
5000	PSI	4950	PSI	+50	PSI

TECHNICIAN:  Dana Sargent

Q.C. Manager:  Lynn Wowk

Invoice: PCL-55726 /jl

**ALL TEST EQUIPMENT IS TRACEABLE TO N.I.S.T. STANDARDS.

**CUSTOMER STANDARD DOCUMENT CS-018.

530195 1/11 Ser 80

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Stahl/Rohr

Benders Stahlrohr GmbH
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 52008 Fredeburg
 Germany
 Tel. +49 225 1910 Fax +49 225 191888
 E-Mail: info@benteler.com

ABNAMESPRÜFZEUGNIS EN 10204-B.1
 INSPECTION CERTIFICATE EN 10204-B.1
 CERTIFICATE RECEPTEUR EN 10204-B.1
 EN 10204-B.1

Werkstoff: S235JR
 Material: S235JR
 Matière: S235JR
 Material: S235JR
 Matière: S235JR

Dimensions: 1.1/4" NPS x Sched. 40
 Dimensions: 1.1/4" NPS x Sched. 40
 Dimensions: 1.1/4" NPS x Sched. 40

Grade: B
 Grade: B
 Grade: B

Weight: 138070
 Weight: 138070
 Weight: 138070

Length: 1199.23
 Length: 1199.23
 Length: 1199.23

Date: 2007
 Date: 2007
 Date: 2007

BENTELER

Stahlrohr

Benteler Stahlrohr GmbH
 Postfach 1370
 33049 Paderborn
 Deutschland
 Tel.: +49 5251 41-0 Fax: +49 5251 15680

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
 INSPECTION CERTIFICATE EN 10204-3.1
 CERTIFICATE OF RECEPTION EN 10204-3.1

41-237970/000UF
 Dokument-Nr.
 Document No.
 No. de document

Pos.	Stück	Maße	Länge	Gewicht	Schweißnäht	Randstück	Rolle-Nr.	Material	Stichtag	Blatt
			mm	kg	mm	mm				Page
0011	300	3/4" NPS * Sched. 80	5100,00	9458	510273	207	5			
		18 FT * 22 FT								
0012	1000	1" NPS * Sched. 80	21325,16	47016	529703	207	5			
		18 FT * 22 FT								
0013	1468	1" NPS * Sched. 80	31531,18	84930	510295	207	5			
		18 FT * 22 FT								
0015	189	1" NPS * Sched. 100	4036,94	11965	548930	207	5			
		18 FT * 22 FT								
0020	162	1/2" NPS * Sched. 150	1495,81	4374	148435	207	5			
		18 FT * 22 FT								

Schweißnähtanalyse (S1) / Non-metallic test Analysis (EN 10204-3.1)

Pos.	Schweißnäht	C	Si	Mn	P	S	CR	MO	NI	CU	V	Nb	Ti	B
0008	148078	0,130	0,025	0,82	0,010	0,002	0,15	0,05	0,10	0,35	0,001	0,003	0,003	0,0005
0010	148433	0,130	0,206	0,82	0,012	0,004	0,15	0,04	0,12	0,17	0,001	0,003	0,003	0,0005
0011	530273	0,150	0,250	0,88	0,011	0,002	0,18	0,05	0,11	0,17	0,001	0,003	0,003	0,0005
0012	529703	0,150	0,250	0,88	0,012	0,002	0,18	0,02	0,07	0,15	0,001	0,003	0,003	0,0005
0013	510295	0,130	0,206	0,79	0,006	0,004	0,08	0,02	0,05	0,11	0,001	0,003	0,003	0,0005
0020	148435	0,130	0,195	0,79	0,002	0,004	0,14	0,04	0,09	0,24	0,001	0,003	0,003	0,0005
0020	148433	0,130	0,195	0,82	0,011	0,004	0,15	0,04	0,09	0,13	0,001	0,003	0,003	0,0005

1. Formel: $GE \cdot Ni + Cr + Mn + V + (Cr + Mo + Nb) + (Cu + Ni) / 16 \leq 0,40 \%$
2. Formel: $Cr + V + (Mn + Ni) + (Si + P) + (Cu + Mo + Nb) / 5 + (B) \leq 0,40$
3. Formel: $Mn + Si \leq 0,71$
4. Formel: $Cr + Cu + Mo + Ni + V = 1,00 \%$

BENTELER

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ABNAHMEPROFUEUNGS-EM 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

Dokument-Nr.
Document No.
No. du document

41-287970001P

Risikoa
Risque
Niveau de criticite

Blatt
Page
Page

Formelgebühren / Formulaires / Recettes des formules

Pos.	Schmelz-Nr.	1. Formel	2. Formel	3. Formel	4. Formel
Item	Melt No.	1. Formula	2. Formula	3. Formula	4. Formula
Revue	No. de Revue	1. Formula	2. Formula	3. Formula	4. Formula
0008	348070	0,326	0,329	0,308	0,311
0010	348833	0,328	0,341	0,308	0,311
0012	510273	0,364	0,346	0,367	0,351
0012	529709	0,334	0,319	0,359	0,321
0012	530395	0,309	0,281	0,343	0,301
0015	348350	0,313	0,283	0,277	0,310
0020	429929	0,335	0,284	0,310	0,311

Produktanalyse [%] / Product analysis [%] / Analyse des produits [%]

Pos. Schmelz-Nr.

Pos.	Melt No.	C	Si	Mn	P	S	OR	MO	Ni	V	Nb	Ti	B
Item	Melt No.												
Revue	No. de Revue												
0008	348070	0,140	0,210	0,83	0,007	0,002	0,14	0,03	0,10	0,12	0,002	0,004	0,002
0008	348070	0,140	0,240	0,82	0,007	0,002	0,15	0,07	0,11	0,082	0,002	0,002	0,002
0010	348433	0,140	0,190	0,84	0,013	0,003	0,18	0,04	0,09	0,18	0,002	0,002	0,002
0010	348424	0,140	0,190	0,84	0,012	0,003	0,15	0,04	0,09	0,14	0,001	0,001	0,001
0011	348273	0,150	0,240	0,84	0,013	0,003	0,18	0,06	0,14	0,18	0,001	0,001	0,001
0011	530373	0,150	0,240	0,80	0,011	0,001	0,18	0,06	0,14	0,18	0,001	0,001	0,001
0012	529709	0,150	0,220	0,85	0,011	0,001	0,19	0,03	0,08	0,14	0,003	0,003	0,004
0012	529709	0,150	0,220	0,80	0,011	0,001	0,18	0,03	0,07	0,14	0,003	0,003	0,004
0012	530395	0,150	0,200	0,80	0,007	0,004	0,14	0,03	0,07	0,14	0,001	0,001	0,001
0012	530395	0,150	0,190	0,81	0,007	0,004	0,14	0,03	0,07	0,12	0,001	0,001	0,001
0015	348350	0,140	0,190	0,77	0,015	0,003	0,12	0,03	0,05	0,12	0,001	0,001	0,001
0015	348350	0,150	0,190	0,77	0,013	0,002	0,12	0,03	0,05	0,12	0,001	0,001	0,001
0020	348429	0,130	0,198	0,83	0,011	0,002	0,12	0,03	0,05	0,16	0,002	0,001	0,001
0020	348429	0,130	0,180	0,83	0,011	0,002	0,11	0,04	0,05	0,14	0,001	0,001	0,001
0020	348429	0,130	0,180	0,83	0,011	0,002	0,11	0,04	0,05	0,14	0,001	0,001	0,001

Benteler Stahl/Rohr GmbH
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Deutschland
Tel.: +49 5254 31-0 Fax: +49 5254 13699

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

Dokument-Nr.:
Document No.:
No. du document:

41-297870001/P

Prüf-Nr.:
Inspection No.:
No. du certificat:

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Page:
Pages:

1. Formel: $CE_{IIW} = C + (Mn/6) + ((Cr+Mo+V)/5) + ((Cu+Ni)/15) \leq 0,40 \%$
 2. Formel: $CEV = C + F + ((Mn/6) + (Si/24) + (Cu/15) + (Ni/20) + ((Cr+Mo+V+Nb)/6) + (S/8)) \leq 0,40$
 3. Formel: $Mn/Cs = 2/1$
 4. Formel: $Cr+Cu+Mo+Ni+V \leq 1,00 \%$

Formelergbnisse / Formula results / Résultats des formules

Pos.	Schmelzen-Nr	1. Formel	2. Formel	3. Formel	4. Formel	Formel
Heat No.	1. Formule	2. Formule	3. Formule	4. Formule	Formule	Formule
Poste	No. de coulée	1. Formule	2. Formule	3. Formule	4. Formule	Formule
0008	148070	0,335	0,313	5,929	0,422	
0009	148070	0,393	0,311	5,857	0,422	
0010	148433	0,335	0,312	5,000	0,441	
0010	148433	0,335	0,312	6,000	0,441	
0011	530273	0,378	0,370	5,625	0,541	
0011	530273	0,378	0,369	5,625	0,531	
0012	529709	0,339	0,324	5,933	0,341	
0012	529709	0,349	0,326	6,000	0,341	
0012	530195	0,310	0,291	5,714	0,321	
0012	530195	0,321	0,307	5,400	0,321	
0015	148150	0,315	0,295	5,500	0,392	
0015	148350	0,325	0,311	5,133	0,402	
0030	148429	0,320	0,288	6,385	0,411	
0030	148429	0,320	0,288	6,385	0,411	

Prüfergebnisse / Test results / Résultats des essais

Die Röhre sind auf Dichtigkeit geprüft durch:
The tubes have been submitted to a leak tightness test by:
Les tubes ont passé un contrôle d'étanchéité par:

Hydrostatic test; acc. to CSA Z245.1, holding time min 5 seconds, Test pressure/Prime-test

PASSED

Augensichtkontrolle:
Visual inspection:
Examen visuel:

PASSED

Biegeversuch:
Bending test:
Essai de cintrage:

PASSED

Maßkontrolle:
Dimensions examination:
Vérification des dimensions:

PASSED

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ABNAHMEPRÜFZEUGNIS EN 10204-3.1
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Ergebnisse der mechanischen Prüfung / Results of mechanical testing / Résultats des essais mécaniques

Die Probenahme erfolgte an Vielfachlängen.
The sampling was carried out on multiple lengths.
L'échantillonnage a été réalisé aux longueurs multiples.

Zugversuch Vollprobe / Tensile test full section test specimen / Essai de traction Eprouvette a section complète

Pos.	Proben-Nr. Specimen No.	Schmelzen-Nr. Heat No.	Probentabmessung Specimen dimensions	Streckgrenze Yield strength	Zugfestigkeit Tensile strength	Dehnung Elongation	Einschnürung Coefficient of elongation	Re/Rm
Posé	Nb. de l'éprouvette	No. de coulée	Dimensions de l'éprouv.	Limite élastique	Réaistance à la traction	Allongement		Re/Rm
Anforderungen	mm	mm ²	mm ²	mm ²	mm ²	A ₂ ⁰	1. Formel	Re/Rm
Exigences		290-495	415-260	%	MIN 30	1. Formel	1. Formel	Re/Rm
0008	000001	148070	42,20 X 3,40	333	474	52,00		
0008	000002	148070	42,20 X 3,40	327	481	54,00		
0010	000001	148433	21,40 X 3,80	327	477	38,00		
0010	000002	148433	21,40 X 3,80	326	476	40,00		
0011	000001	530273	26,70 X 4,00	364	515	42,00		
0011	000002	530273	26,70 X 4,00	357	511	42,00		
0012	000001	529709	33,40 X 4,50	329	466	50,00		
0012	000002	529709	33,40 X 4,50	330	465	52,00		
0012	000003	529709	33,40 X 4,50	329	466	52,00		
0012	000001	530195	33,40 X 4,50	321	465	50,00		
0012	000002	530195	33,40 X 4,50	320	465	48,00		
0012	000003	530195	33,40 X 4,50	321	466	50,00		
0015	000001	148350	33,40 X 6,50	317	479	48,00		
0015	000002	148350	33,40 X 6,50	319	480	50,00		
0030	000001	148429	21,40 X 4,50	324	476	40,00		
0030	000002	148429	21,40 X 4,50	323	473	42,00		

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Härteprüfung / Hardness test / Essai de dureté

Pos.	Proben-Nr.	Schmelzer-Nr.	Härte	HB	HV	HRB
Item	Specimen No.	Heat No.	Hardness			
Poste	No. de l'éprouv.	No. de coulée	Dureté			
Anforderungen						
Requériments						
Exigences						
0008	000001	148070		MAX 200		
0010	000001	148433		138		
0011	000001	530273		138		
0012	000001	529709		142		
0012	000002	529709		145		
0012	000001	530195		144		
0012	000002	530195		138		
0015	000001	148350		139		
0030	000001	148429		142		
0030	000001	148429		139		

Restmagnetismus / Remanence / Rémanéscence

Pos. / Item / Poste: 0008, 0015, 0010, 0030, 0012, 0011
residual magnetic field intensity max 3.5 millitesla

Pos.	Ihr Zeichen	Kundenmaterial	Kundenbestell-Nr.
Item	Your reference	Customer's material No.	Purchase Order No.
Poste	Votre référence	No. de matière du client	No. de commande du client
0008		P.O. 9104020-2520280	05-5502 / 9104020-00
0010		P.O. 9104020-2520354	05-5502 / 9104020-00
0011		P.O. 9104020-2520362	05-5502 / 9104020-00
0012		P.O. 9104020-2520370	05-5502 / 9104020-00
0015		P.O. 9104020-2520524	05-5502 / 9104020-00
0030		P.O. 9104020-2526508	05-5502 / 9104020-00

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Stahl/Rohr

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Deutschland
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HT # 736435 2" XH A106 PIPE


PROH-Nr.:
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EN 10204-3.005-01

Benteler Stahlrohr GmbH - Postfach 1340 - 33043 Peschborn - Deutschland
Westland - Edmonton
5155 - 75th Street
EDMONTON, AB T6E 5S5
KANADA

Dokument-Nr.: 05-5421
No. du document:
Kunden-Bestell-Nr.: 1127218
Purchase Order No.:
No. de commande du client:
Benteler Auftrags-Nr.: 6558262
Benteler Order No.:
No. de commande Benteler:
Versandmenge/Nr.:
Dispatch Note No.:
No. d'avis d'expédition:
Produkt: NAHTLOSE STAHLROHRE
Product: SEAMLESS STEEL TUBES
Produit: TUBES D'ACIER SANS SOUDURE

Hersteller: Wienerrohrwerk Division
Manufacture: WIENROHRWERK DIVISION
Produkteur: WIENROHRWERK DIVISION
Herstellerzeichen: 
Manufacturer's brand:
Marque du producteur:
Stempel des Abnahmesbeauftragten: WA
Stamp of the independent representative:
Timbre du contrôleur:
Stahlercheinzelzeugungsverfahren: ELEKTROSTÄHL
Smelting process: ELECTRIC FURNACE
Procédé d'élaboration de l'acier: FOUR ELECTRIQUE

CSA Standard Z245.1-02 Category I, API Specification 5L Forty-Third Edition, March 2004, PSL 1, ASTM-A 106-2004b, S5, ASME SA-108, ASME Section II Part A Edition 2004, S5, NACE MR0175-03

ASME B36.10M-1996, ASME SA-530, ASME Section II Part A Edition 2004, ASTM-A 530-2003

GRADE 290, GRADE B, GRADE X 42

Hot rolled

see attachment product marking

Produktkennzeichnung:
Product marking:
Marquage du produit:

Pos.	Stück	Masse	Länge	Gewicht	Schmelzen-Nr.	Prüfdruck	Rohr-Nr.-Gruppe	Vielfach
Item	Number	Dimensions	Length	Weight	Heat No.	Test pressure	Tube number group	Multiple
Poids	Nombre	Dimensions	Longueur	Poids	No. de coulée	Pression d'épreuve	Série de no. des tubes	Longueur
			feet	lbs		PSI		
0002	162	1 1/2" NPS * Sched. 40 1.8 FT * 22 FT	3307.12	8794	527031	3000	5	5
0003	100	3" NPS * Sched. 40 3.8 FT * 42 FT	4120.70	31142	736199	3000	5	5

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ABNAHMEPRÜFZEUGNIS EN 10204-3.1

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1. Formel: $CE \leq W + (Mn/6) + (Cr + Mo + V/5) + ((Cu + Ni)/15) \leq 0,40 \%$
2. Formel: $CEI = C + F + (Mn/6) + (Si/24) + (Cr + Mo + V + Nb/5) + (5 \cdot B) \leq 0,40$
3. Formel: $Mn/C \geq 3/1$
4. Formel: $Cr + Cu + Mo + Ni + V \leq 1,00 \%$

Formel/ergebnisse / Formula results / Résultats des formules

Pos. Item	Schmelzen-Nr. Heat No.	1. Formel 1. Formula 1. Formule	2. Formel 2. Formula 2. Formule	3. Formel 3. Formula 3. Formule	4. Formel 4. Formula 4. Formule
Pos. Item	Heat No.	1. Formel 1. Formula 1. Formule	2. Formel 2. Formula 2. Formule	3. Formel 3. Formula 3. Formule	4. Formel 4. Formula 4. Formule
0002	527031	0,296	0,271	6,154	0,291
0003	736199	0,306	0,289	6,000	0,311
0007	527032	0,312	0,295	5,857	0,311
0008	736435	0,323	0,292	6,385	0,481
0009	736436	0,318	0,275	6,833	0,531
0010	736410	0,341	0,317	5,786	0,541
0011	736390	0,324	0,303	6,222	0,451
0012	527218	0,362	0,353	5,000	0,551

Produktanalyse [%] / Product analysis [%] / Analyse sur produit [%]

Pos. Item	Schmelzen-Nr. Heat No.	C	SI	MN	P	S	CR	MO	NI	CU	V	NB	TI	B
Pos. Item	Heat No.	C	SI	MN	P	S	CR	MO	NI	CU	V	NB	TI	B
0002	527031	0,140	0,200	0,81	0,007	0,007	0,08	0,03	0,07	0,11	0,001	0,010	0,002	0,002
0002	527031	0,140	0,200	0,81	0,007	0,007	0,08	0,03	0,07	0,11	0,001	0,010	0,002	0,002
0003	736199	0,130	0,240	0,80	0,008	0,005	0,10	0,01	0,09	0,11	0,001	0,010	0,003	0,003
0003	736199	0,140	0,240	0,82	0,008	0,005	0,09	0,01	0,09	0,12	0,001	0,010	0,003	0,003
0007	527032	0,130	0,200	0,82	0,007	0,002	0,09	0,03	0,07	0,13	0,001	0,010	0,002	0,002
0007	527032	0,130	0,200	0,82	0,007	0,002	0,08	0,03	0,07	0,13	0,001	0,010	0,002	0,002
0008	736435	0,130	0,190	0,81	0,009	0,002	0,12	0,04	0,15	0,19	0,001	0,010	0,002	0,002
0008	736435	0,130	0,200	0,81	0,009	0,002	0,12	0,04	0,15	0,19	0,001	0,010	0,002	0,002
0009	736436	0,130	0,190	0,81	0,009	0,002	0,12	0,04	0,15	0,19	0,001	0,010	0,002	0,002

ATTN: JOELLE

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ABNAHMEPRÜFZEUGNIS EN 10204-3.1

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CERTIFICAT DE RECEPTION EN 10204-3.1

Produktanalyse [%] / Product analysis [%] / Analyse sur produit [%]

Pos.	Schmelzen-Nr.	C	SI	Mn	P	S	CR	MO	NI	CU	V	Nb	Ti	B
Item	Melt No.													
Pos.	No. de coulée													
0009	736436	0,130	0,200	0,81	0,009	0,002	0,12	0,04	0,15	0,19	0,001	0,010	0,002	0,002
0010	736410	0,140	0,200	0,83	0,011	0,005	0,17	0,04	0,14	0,15	0,002	0,010	0,002	0,002
0010	736410	0,130	0,190	0,82	0,011	0,005	0,16	0,04	0,14	0,16	0,002	0,010	0,002	0,002
0011	736390	0,130	0,200	0,84	0,007	0,002	0,08	0,03	0,07	0,17	0,001	0,010	0,002	0,002
0011	736390	0,130	0,200	0,83	0,007	0,002	0,08	0,03	0,07	0,17	0,001	0,010	0,002	0,002
0012	527218	0,140	0,190	0,82	0,011	0,005	0,16	0,04	0,14	0,16	0,002	0,010	0,002	0,002
0012	527218	0,130	0,190	0,82	0,011	0,004	0,16	0,04	0,14	0,16	0,002	0,010	0,002	0,002

- 1. Formel: $CE \leq (W-C+(Mn/6)+(Cr+Mo+V)/5)+(Cu+Ni)/15) \leq 0,40 \%$
- 2. Formel: $CEV=C+F*((Mn/6)+(S/24)+(Cu/15)+(Ni/20)+(Cr+Mo+V+Nb)/5) + (5*B) \leq 0,40$
- 3. Formel: $Mn/C \geq 3/1$
- 4. Formel: $Cr+Cu+Mo+Ni+V \leq 1,00 \%$

Formelergebnisse / Formulas results / Résultats des formules

Pos.	Schmelzen-Nr.	1. Formel	2. Formel	3. Formel	4. Formel
Item	Melt No.	1. Formula	2. Formula	3. Formula	4. Formula
Pos.	No. de coulée	1. Formula	2. Formula	3. Formula	4. Formula
0002	527031	0,309	0,292	5,786	0,291
0002	527031	0,309	0,292	5,786	0,291
0003	736199	0,299	0,274	6,154	0,311
0003	736199	0,311	0,295	5,857	0,311
0007	527032	0,304	0,277	6,308	0,321
0007	527032	0,302	0,275	6,308	0,311
0008	736435	0,320	0,289	6,231	0,501
0008	736435	0,320	0,289	6,231	0,501
0009	736436	0,320	0,289	6,231	0,501
0009	736436	0,320	0,289	6,231	0,501
0010	736410	0,341	0,318	5,929	0,512

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Formelergänze / Formula results / Résultats des formules

Pos.	Schmelzen-Nr Heat No.	1. Formel 1. Formula	2. Formel 2. Formula	3. Formel 3. Formula	4. Formel 4. Formula	Formel Formula
Posta	No. de coule	1. Formula	2. Formula	3. Formula	4. Formula	Formula
0010	736410	0,327	0,295	6,308	0,502	
0011	736398	0,308	0,281	6,462	0,351	
0011	736390	0,307	0,279	6,385	0,351	
0012	527218	0,337	0,314	5,857	0,502	
0012	527218	0,327	0,295	6,308	0,502	

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Prüfresultate / Test results / Résultats des essais

Die Röhre sind auf Dichtheit geprüft durch:
The tubes have been submitted to a leak tightness test by:
Les tubes ont passé un contrôle d'étanchéité par:

Hydrostatic test acc. to CSA Z245.1, holding time min 5 seconds, Test
pressure/time-record

PASSED

Augensichtkontrolle:
Visual inspection:
Examen visuel:

PASSED

Biegeversuch:
Bending test:
Essai de étrépage:
Pos. / Item / Poste: 0002, 0007, 0008, 0009, 0011, 0012

PASSED

Maßkontrolle:
Dimensions examination:
Vérification des dimensions:

PASSED

Ringfaltenversuch:
Flattening test:
Essai d'épississement:

PASSED

Pos. / Item / Poste: 0003, 0010

Ergebnisse der mechanischen Prüfung / Results of mechanical testing / Résultats des essais mécaniques

Die Probenahme erfolgte an Vielfachlängen.
The sampling was carried out on multiple lengths.
L'échantillonnage était réalisé aux longueurs multiples.

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Zugversuch / Tensile test / Essai de traction

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 No. du document

Prüf-Nr.:
 Inspection No.:
 No. du certificat

Pos.	Proben-Nr. Specimen No.	Schmelzen-Nr. Heat No.	Probenabmessung Specimen dimensions Dimensions de l'éprouv.	Streckgrenze Yield strength Limite élastique	Zugfestigkeit Tensile strength Résistance à la traction	Dehnung Elongation Allongement	Einschränkung Area reduction Coefficient de striction	Ra Ra1
Pos.	No. de l'éprouvette	No. de coulée	mm	R _{0.2} MPa	R _m MPa	A ₂ %	1. Formel 1. Formula 1. Formula	Ref
Anforderungen Requirements Exigences				290-456	415-780	MIN 30		
0002	000001	527031	12,70 X 3,50	400	511	34,00		
0002	000002	527031	12,70 X 3,50	417	507	34,00		
0003	000001	736199	25,40 X 5,50	327	452	43,00		
0003	000002	736199	25,40 X 5,50	324	451	42,00		
0007	000001	527032	12,70 X 5,10	347	472	36,00		
0007	000002	527032	12,70 X 5,10	345	473	35,00		
0008	000001	736435	19,00 X 5,50	349	475	37,00		
0008	000002	736435	19,00 X 5,50	353	474	39,00		
0009	000001	736436	19,00 X 5,50	353	480	38,00		
0009	000002	736436	19,00 X 5,50	348	479	37,00		
0010	000001	736410	25,40 X 8,40	337	485	38,00		
0010	000002	736410	25,40 X 9,20	354	496	38,00		
0010	000003	736410	25,40 X 8,40	339	487	38,00		
0011	000001	736390	12,70 X 7,20	340	468	34,00		
0011	000002	736390	12,70 X 7,20	334	460	32,00		
0012	000001	527218	19,00 X 8,70	345	489	38,00		
0012	000002	527218	19,00 X 8,70	349	492	36,00		

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Inspection No.:
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Härteprüfung / Hardness test / Essai de dureté

Pos. Item Poste	Proben-Nr. Specimen No. No. de l'éprouv.	Schmelzen-Nr. Heat No. No. de coulée	Härte Hardness Dureté	HRC	HB	HV	HRB
Anforderungen Requirements Exigences							
0002	000001	527031			MAX 200		
0003	000001	736199			156		
0007	000001	527032			136		
0008	000001	736435			138		
0009	000001	736436			150		
0010	000001	736410			149		
0011	000001	736390			137		
0012	000001	527218			141		
0012	000001	527218			137		

Residualmagnetismus / Demagnetisation /
residual magnetic field intensity max 3,5 millitesla

Pos. Item Poste	Ihr Zeichen Your reference Votre référence	Kundenmaterial Customer's Material No. No. de matière de client	Kundenbestell-Nr. Purchase Order No. No. de commande du client
0002		P.O. 9100941-2520249	05-5421
0003		P.O. 9100941-2520331	05-5421
0007		P.O. 9100941-2520397	05-5421
0008		P.O. 9100941-2520400	05-5421
0009		P.O. 9100941-2520046	05-5421
0010		P.O. 9100941-2520050	05-5421
0011		P.O. 9100941-2520524	05-5421
0012		P.O. 9100941-2520540	05-5421

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Stahlrohr

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ABNAHMEPRÜFZEUGNIS EN 10204-3.1

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Vermerk / Remark / Remarque

Pos. / Item / Poses: 0002, 0008, 0011, 0009, 0012, 0007, 0011, 0012, 0009, 0008, 0007, 0008, 0011, 0012, 0007, 0009, 0012, 0007, 0011, 0012, 0009, 0008, 0008, 0008
NACE Standard: hardness acc. to NACE Standard MR0175 HRC max 22; The material meets the requirements of NACE
MR0103; Certificate remarks: This is to confirm that the seamless pipe supplied by Benteler and verified
to CSA Standard Z245.1-02 meets the requirement for micro hardness of max. 248 HV 500.; Bend test: material
diameter 12D, bending angle 90 degree

Pos. / Item / Poses: 0003, 0010, 0010, 0010

NACE Standard: hardness acc. to NACE Standard MR0175 HRC max 22; The material meets the requirements of NACE
MR0103; Certificate remarks: This is to confirm that the seamless pipe supplied by Benteler and verified
to CSA Standard Z245.1-02 meets the requirement for micro hardness of max. 248 HV 500.

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Beibehalt Produktkennzeichnung / Attachment product marking / Supplément marquage du produit

Pos. Item Poste	Produktkennzeichnung Product marking Marquage du produit
0002	FS: BENTELER Z.245.1, Spec.5L-PSL1, A/SA-106 S6 B/X42/290 HEAT-NO. TEST PRESSUR E DIMENSIONS SCHEDULE WA GERMANY P.O. 9100941-2520249
0003	FS: BENTELER Z.245.1, Spec.5L-PSL1, A/SA-106 S5 B/X42/290 HEAT-NO. TEST PRESSUR E DIMENSIONS SCHEDULE WA GERMANY P.O. 9100941-2520031
0007	FS: BENTELER Z.245.1, Spec.5L-PSL1, A/SA-106 S5 B/X42/290 HEAT-NO. TEST PRESSUR E DIMENSIONS SCHEDULE WA GERMANY P.O. 9100941-2520397
0008	FS: BENTELER Z.245.1, Spec.5L-PSL1, A/SA-106 S5 B/X42/290 HEAT-NO. TEST PRESSUR E DIMENSIONS SCHEDULE WA GERMANY P.O. 9100941-2520400
0009	FS: BENTELER Z.245.1, Spec.5L-PSL1, A/SA-106 S5 B/X42/290 HEAT-NO. TEST PRESSUR E DIMENSIONS SCHEDULE WA GERMANY P.O. 9100941-2520046
0010	FS: BENTELER Z.245.1, Spec.5L-PSL1, A/SA-106 S5 B/X42/290 HEAT-NO. TEST PRESSUR E DIMENSIONS SCHEDULE WA GERMANY P.O. 9100941-2520050
0011	FS: BENTELER Z.245.1, Spec.5L-PSL1, A/SA-106 S5 B/X42/290 HEAT-NO. TEST PRESSUR E DIMENSIONS SCHEDULE WA GERMANY P.O. 9100941-2520524
0012	FS: BENTELER Z.245.1, Spec.5L-PSL1, A/SA-106 S5 B/X42/290 HEAT-NO. TEST PRESSUR E DIMENSIONS SCHEDULE WA GERMANY P.O. 9100941-2520540

BENTELER

Stahl/Rohr

Benteler Stahl/Rohr GmbH
 Postfach 13 40
 33143 Paderborn
 Deutschland
 Tel.: +49 5254 81-0 Fax: +49 5254 13666

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

FK = Fugüberwachung, soudure contrôlée FS = Fugüberwachung, marquage par couleur LS = Einzelüberwachung, individuel inspecté
 Individuel par peinture PKE = Etikettenzeichnung, tag marquée sur étiquette PS = Prägestempel, die stamp, marquage par polynome TS =
 Trichterstrahlzeichnung, ink jet spray marking, imprimante à jet d'encre

65-269977/001/P

Prüf-Nr.:
 Inspection No.:
 No. du certificat

Dokument-Nr.:
 Document No.:
 No. du document

Blatt: 9 /
 Page:
 Page:

Verkäufer(in) / Salesman/woman in charge / Personne chargée: Mr Seebach, Tel.: 05254/81-4281, Fax: 4289

Abnahmebeauftragter
 Inspection representative

Compteur

JAN FREEKX / WIL

Es wird bestätigt, daß die gelieferten Erzeugnisse den techn. Lieferbedingungen des Auftrages entsprechen. Dieses Dokument wurde mittels EDY erstellt und ist ohne Unterschrift rechtsbültig.
 We certify that the supplied products comply with the order specification. This document was prepared by means of electronic data processing and is valid without signature.
 Nous attestons que les produits livrés sont conformes aux spécifications de la commande. Ce document a été établi par traitement électronique et est valide sans signature.

Düsseldorf, 13.05.2005, TEL.: 02084.623-571 FAX: 02084.623-575





COMPLETION OF CONSTRUCTION

DECLARATION

NOTE: This declaration shall be completed and signed by the person responsible, in whole or in part, for the construction, installation, testing and inspection of the pressure piping system and forwarded to the Administrator/Chief Inspector.

(1) Owner of Plant: Trident Exploration Corp.
1000 444 7 Ave SW, Calgary, AB T2P 0X8
(Name and Address)

(2) Engineer or Contractor: _____

(Name and Address)

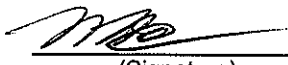
(3) Type of Plant: Gas Process

(4) Location of Plant: _____
(Sec, TWP, Rge)

(5) Description of Pressure Piping System(s): Gas Process SOG Project #:6-615

STATEMENT OF COMPLIANCE

I, the undersigned, declare that the described pressure piping system, approved under design registration number AQP - 2982, complies in all respects with the regulations for construction, installation, testing and inspection and that all applicable pressure piping test data reports have been delivered to the owner.

 Norm Hamilton VP Operations July 13 06
(Signature) (Print Name) (Title) (Date)

Stettler Oil & Gas Equipment Box 652 Stettler, AB T0C 2L0
(Company) (Address) (City, Postal Code)

Certificate of Inspection

STETTLER OIL & GAS EQUIPMENT
PO BOX 652
STETTLER, AB
TOC 2L0

PREFERRED RE-INSP. INTERVAL: 1.00 Yr.

YEAR BUILT: 2006

CRN: R4871.2

SERIAL #: 06-01-54

VOLUME: 0.252 M3

HEATING SURFACE:

SURFACE AREA:

COMPANY CODE:

DESCRIPTION: VERTICAL SEPARATOR

LOCATION: STOCK, STETTLER

MANUFACTURER: UNIVERSAL INDUSTRIES CORP

Safety Valves

PART	MAX. AUTHORIZED WORKING PRESSURE	MAX. TEMP	MIN. TEMP	VALVE ID	SETTING	CAPACITY	LOCATION
VESSEL	9928 KPA	38 C	-29 C	SV1			TO BE INSTALLED

OWNER INSTRUCTIONS/REMARKS:

Contact the ABSA Safety Codes Officer before placing the vessel/boiler in service.

Vessel/Boiler to be installed in accordance with the Safety Codes Act and Regulations.

Verify that vessel/boiler is protected by an acceptable ASME Code pressure relief device, of adequate capacity, set at no more than maximum pressure authorized and installed in accordance with the Safety Codes Act & Regulations.

If installed at a wellsite or battery, this vessel may be removed from annual fee as per information bulletin IB03-003(I) - (Vessels having a volume not exceeding 0.5 M3 (500 Litres) that are located in well head plants or batteries)

Safety Codes Officer: MALTAIS, DONALD

Signature: 

NOTE: REQUIREMENTS OF THE SAFETY CODES ACT AND THE REGULATIONS ISSUED THEREUNDER:

The owner or person in charge shall report all accidents involving a boiler, pressure vessel or pressure piping system to the district Safety Codes Officer immediately and shall send a full report in writing to the Administrator as required by the Act. No repairs or alterations may be made unless authorized by a Safety Codes Officer.

Certificate of Authorization

Quality Control Program

Expiry Date: **August 29, 2007**

Reg. No.: **AQP-2982**

This is to certify that:

STETTLER OIL & GAS EQUIPMENT
NE 32-38-19-W4M
STETTLER, ALBERTA

having complied with the provisions of the SAFETY CODES ACT, is hereby authorized to:

Construct, Repair/Alter ASME B31.3 Process Piping
at the SHOP and FIELD sites controlled from the above address.



Dated at Edmonton, this 30th day of August, 2004

Chief Inspector and Administrator
Certificate No.: 4262

STETTLER OIL & GAS EQUIPMENT

PNEUMATIC OPERATION TEST REPORT

DATE: JUNE 28/06

PROJECT #: 6-615

CLIENT: TRIDENT

DESCRIPTION OF PACKAGE: 16x8x140 stand alone (install Siimark/air compressor)

FUEL GAS LEAK TEST DONE BY: STEVE STATZ, JEREMY

TEST PRESSURE UPSTREAM OF REGULATOR: 150psi

TEST PRESSURE DOWNSTREAM OF REGULATOR: 50psi

TEST RESULTS: ok

TEST WITNESSED BY QC INSPECTOR:



TEST WITNESSED BY COMPANY INSPECTOR:

HEAT # OF TUBING: 3/8" 821451 1/2" 822071

COMMENTS:

Taylor Valve Technology, Inc

8300 Southwest 8th Street

Oklahoma City, Oklahoma

Serial Number : 28451-10 telephone: 405.787.0145 facsimile: 405.789.8198

Certificate Number: 38866.3831

OG1316.2C email: info@taylorvalve.com

Customer : Kings Valve Services

Date : 29-May-06

277, 28042 Hwy 11

Red Deer County, AB

T4S 2L4

Sales Order # : 28451

Customer P.O. # : 0

Safety Relief Valve Certification

Taylor Valve Technology, Inc. Safety Relief Valves are designed, manufactured and tested in accordance with the provisions of the ASME Boiler and Pressure Vessel Code, Section VIII. This Valve is certified to relieve within plus or minus 2 psi of the set pressure 70 psig or below, and plus or minus 3% of set point for pressures above 70 psig, as allowed for within the provisions of ASME. The published relieving capacities have been certified by the National Board of Boiler and Pressure Vessel Inspectors.

Valve Specifications

Model Number : Taylor Model 8200 Soft Seat	Orifice :	E
Body Size : 1 Inch	Orifice Diameter :	0.520 Inches
Part Number : 82E4351311	Orifice Area :	0.212 In ²
Body Configuration : 1" MNPT X 1" FNPT	Operating Temperature :	70 °F
	Spring Range :	101-225 PSI
	Set Pressure :	150 PSIG

Materials

Body : WCB Carbon Steel	Spring : 17.7 PH Stainless Steel
Seat Frame : Carbon Steel	Guide : 304 Stainless Steel
Seat Housing : 17.4 PH H900 Stainless Steel	Adjustment Screw : Carbon Steel with EN Plating
Trim : Standard	Options : None
Seat : FKM 90d	

Set Pressure Specifications

	Customer Units	ASME Units	
Set Pressure :	150 psig	Set Pressure :	150 psig
ASME High Set Limit :	155 psig	ASME High Set Limit :	155 psig
ASME Low Set Limit :	146 psig	ASME Low Set Limit :	146 psig
ASME (90%) rated capacity at set pressure for indicated fluid, specific gravity and temperature.			
Certifying Fluid :	Air	582 SCFM	Spec Gravity : 1.00 Temp : 60 oF
API 520 (100%) calculated capacity at set pressure for indicated fluid, specific gravity and temperature.			
Test Fluid :	Air	640 SCFM	Spec Gravity : 1.00 Temp : 60 oF

Prepared by : **Jennifer Dykens**

Department : **Customer Service**

Signed *Jennifer Dykens*

Approved by : **Mason Buerger**

Department : **Quality**

Signed *Mason Buerger*



6785-52nd Ave., Red Deer, Alberta, T4N 4K8
 Tel - (403) 343-2822, Fax - (403) 347-1470
 email - valves@kingsmeter.com, web - www.kingsmeter.com

Safety Relief Valve Test Certification Report

Customer: Stettler Oil & Gas

Date: March 15 /06
 PO #: 7142

S/N: 26561-74

King's Valve Services Ltd. certifies that the pressure relief valve tested meets all ASME Section I and Section VIII requirements. The relieving capacities have been certified in accordance with NB-18.

Valve Specifications

Manufacturer: Taylor Valve Technology	Code: Sec. VIII
Model Number: 8200 Series SRV1" w/ "E" Viton Seat	Spring Range: 1201-1600 PSI
Part Number: 82E8351311	Orifice Diameter: 0.52 Inches
Inlet Connection: 1"MNPT	Orifice Area: 0.212 in ²
Outlet Connection: 1"FNPT	Relieving Temperature: 70.0 °F

Materials

Body: WCB Carbon Steel	Spring: 17-4 Stainless Steel
Seat: FKM - Viton	Seat Frame: Carbon Steel
Guide: Stainless Steel	Top Configuration: Closed Top
Ball or Disc: Stainless Steel	Options: Standard Service
Seals: FKM - Viton	

Test Information

	PSI	KPA	BAR	Kg/CM ²
Set Pressure:	1440.00	9928.51	99.31	101.27
ASME 3% High Limit:	1483.20	10226.37	102.29	104.30
ASME 3% Low Limit:	1396.80	9630.66	96.33	98.23
Bench Set Pressure:	1440	9928.51	99.31	101.27
Simmer Pressure:	1435	9894.04	98.97	100.91
Reset Pressure:	1260	8687.45	86.90	88.61
Leak Test:	0	BPM or ml/min		
Test Gauges:	5A/5B			

ASME (90%) rates capacities at set pressure for indicated fluid, specific gravity and temperature
 Relief Capacity - Air: 5181 SCFM Specific Gravity: 1.00 Temp: 60 °F

Valve Technician: Dan Hegemann

Print
k

Signature 

Management Approval: Lorna Eleniak

Print

Signature 

Certificate of Authorization

Quality Control Program

Expiry Date: **December 9, 2007**

Reg. No.: **AQP-5046**

This is to certify that:

**NUFLO MEASUREMENT SYSTEMS
A NUFLO TECHNOLOGIES COMPANY
9207 - 34A AVENUE
EDMONTON, ALBERTA**

having complied with the provisions of the SAFETY CODES ACT, is hereby authorized to:

Manufacture Category 'F' Fittings in accordance with CSA B51

at the above SHOP address.



Dated at Edmonton, this 3rd day of March, 2005

A handwritten signature in black ink, appearing to read "L. Chan", is written over a horizontal line.

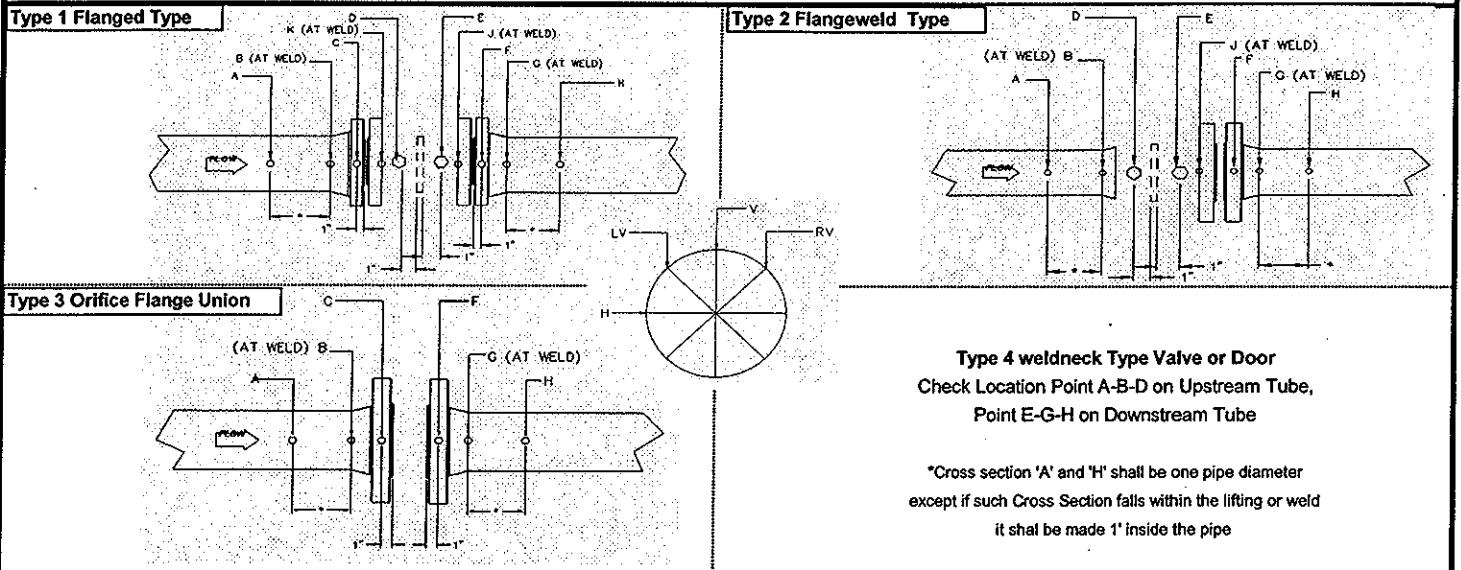
Chief Inspector and Administrator

Certificate No.: 4486

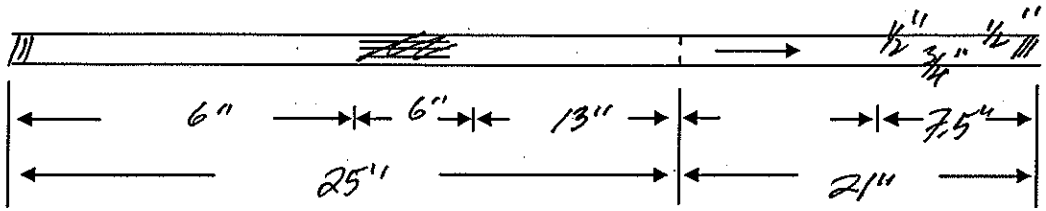
Meter Tube Calibration Record

General Specifications

Customer:	STETTLER OIL & GAS	Date:	MARCH 16/ 2006
Location:	STOCK	P.O. Number:	6017
Serial No.	XJ54632-12	Work Order No.	XJ54632
Assembly Part No.	40982-000-A0908	Part No.	40422-34221
Orifice Fitting:	2" 600# SCH. 80 SINGLE CHAMBER	Meter Tube Type No.	2
Straightening Vane:		Yes	X No



Location	Upstream Meter Tube					Downstream Meter Tube					
	A	B	C	D	K	E	F	G	H	J	
V	1.936	1.934		1.939		1.939	1.941	1.936	1.936	1.929	
LV	1.937	1.936		1.939		1.939	1.942	1.939	1.939	1.939	
RV	1.936	1.929		1.939		1.939	1.941	1.929	1.934	1.929	
H	1.937	1.939		1.939		1.939	1.942	1.939	1.936	1.934	
Average	1.936	1.934		1.939		1.939	1.941	1.936	1.936	1.931	
Upstream Mean Average to Stamp on I.D. Plate	1.939					Downstream Mean Average to Stamp on I.D. Plate	1.939				



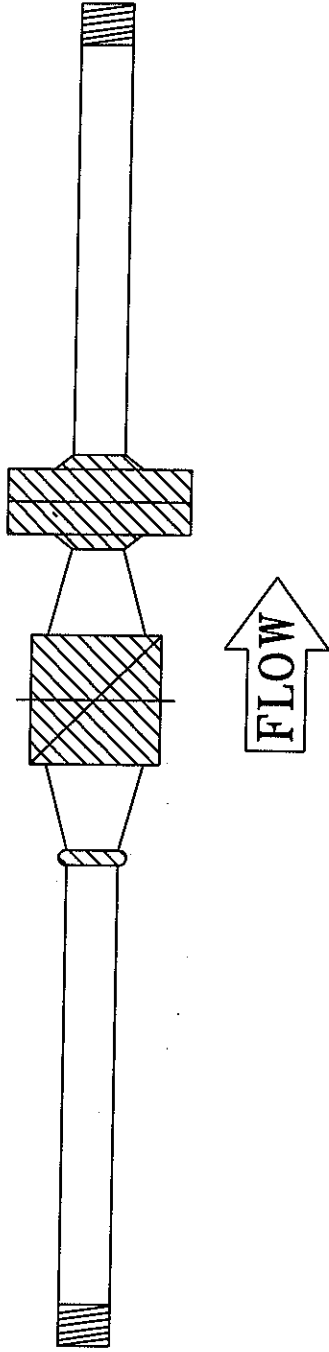
AGA/API Figure	30	BETA	0.70	Meter Tap Location	Upstream	1"	Downstream	1"
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Remarks: 68°F Inspector: *V. Reddy*

NuFlo Measurement Systems			
PRODUCT OF CANADA			
SINGLE CHAMBER	40422 -34221		
SIZE	2.0	SER. NO.	XJ54632-12
BORE	1.939	W.P.	1480
		FLG.	600
TRIM	SWEET	C.R.N. NO.	0F1120.213

NuFlo Measurement Systems					
EDMONTON, ALBERTA, CANADA					
METER RUN ASSY. NO	40982 - 000 - A0908			MAX. BORE	
SER. NO.	XJ54632-12	U.S. (D)	1.939	D.S. (D)	1.939
PIPE SIZE	2.0	SCH.	80	RATING	600
AGA / API	3 C	d / D	0.70	CALIBRATION CERTIFIED BY	NuFlo
W.O. NO.	XJ54632	DATE	03 / 06		

WELD IDENTIFICATION MAP



DESCRIPTION: 2" 600# SCH. 80 SINGLE CHAMBER METER RUN
 SERIAL No.: XJ54632-12
 CUSTOMER: STETTLER OIL & GAS
 P/O No.: 6017 TAG No.: _____
 W/O No.: XJ54632 END USER: _____ STOCK _____
 WELDER: SHANE MITCHELL FILE No.: W-22497
 DATE: MARCH 17/2006 *Marya Mahoney*
 SYMBOL: E QUALITY ASSURANCE INSPECTOR



NuFlo Measurement Systems

9207 - 34A AVENUE
 EDMONTON, ALBERTA
 T6E 5T6



18290

Grade "B" Pressure Welder's Certificate of Competency



This is to certify that **Shane Mitchell** having complied with provisions of the Safety Codes Act, is authorized to engage in pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton
December 02, 2004



W-22497
File no.

Shane Mitchell
Chief Inspector and Administrator



A.O.Q.P. No. 7106 (c)

LUDWIG & ASSOCIATES LTD.

Materials and Welding Engineering

WELDER PERFORMANCE QUALIFICATION CARD

Name: **SHANE MITCHELL** ABSA File No. **W-22497**

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

July 07 2005
Date of Test

Shane Mitchell
Signature of Welder or Machine Operator

R. GOTTSCHLICH
Welding Examiner (Print/type)

Card No. **E 7493**

PERFORMANCE QUALIFICATION **E 7493**

Process(es) **GMAW FCAW** Materials (P.No.) **PI**

Filler Metal Group (F.No.) **F6 F6** Min. Outside Diameter **1.0 in. O.D.**

Max. Deposited Weld Metal **0.118 in. 0.684 in.** Position(s) Qualified **GMAW: SP 0°-45° FLAT FCAW: FLAT**

Backing **WITHOUT WITH** Backing Gas **NONE**

Progression **Downhill N/A**

July 07 2007

P.Q. Expiry Date *Shane Mitchell* Welding Examiner Signature **E00037** Examiner File No.



A.O.Q.P. No. 7106 (c)

LUDWIG & ASSOCIATES LTD.

Materials and Welding Engineering

WELDER PERFORMANCE QUALIFICATION CARD

Name: **SHANE MITCHELL** ABSA File No. **W-22497**

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

July 07 2005
Date of Test

Shane Mitchell
Signature of Welder or Machine Operator

R. GOTTSCHLICH
Welding Examiner (Print/type)

Card No. **E 7494**

PERFORMANCE QUALIFICATION **E 7494**

Process(es) **SMAW SMAW** Materials (P.No.) **PI**

Filler Metal Group (F.No.) **F3 F4** Min. Outside Diameter **1.0 in. O.D.**

Max. Deposited Weld Metal **0.188 in. 0.684 in.** Position(s) Qualified **FLAT**

Backing **WITHOUT WITH** Backing Gas **N/A**

Progression **N/A N/A**

July 07 2007

P.Q. Expiry Date *Shane Mitchell* Welding Examiner Signature **E00037** Examiner File No.

Product# 40726-015
Customer Part# 40726-015
Customer NuFlo Measurement Systems
9207 - 34A Avenue
Edmonton AB T6E 5T6
Canada

Order/Item# 26442 / 2
Customer P O # XP50394

2" SINGLE BODY

Prepared by [Signature]
Quality Assurance Technician

Heat Treatment NORMALIZED AND TEMPERED



Melt#	Quantity	Date	Heat Treat	BATCH #	Specification
1-1777	1	8/29/05	G31	-	ASTM A216 GRADE WCB

C H E M I C A L S

C 2100	MN 1 0000	SI 4700	P 0140
S 0170	NI 0500	CR 2400	MO 0800
CU 1100	V 0100		

CE' 4533

YIELD KSI 54 0
ELONGATION % 27

P H Y S I C A L S

TENSILE KSI 81 4
RED OF AR % 45

Melt#	Quantity	Date	Heat Treat	BATCH #	Specification
6-8037	1	8/29/05	G32	-	ASTM A216 GRADE WCB

C H E M I C A L S

C 1900	MN 7900	SI 5000	P 0150
S 0100	NI 0400	CR 1500	MO 0500
CU 1000	V 0080		

CE' 3726

YIELD KSI 41 4
ELONGATION % 32

P H Y S I C A L S

TENSILE KSI 75 0
RED OF AR % 58

MATERIAL TEST REPORT



MST1201
7/20/05

Highland Foundry Ltd.
CHEMICAL AND PHYSICAL ANALYSIS

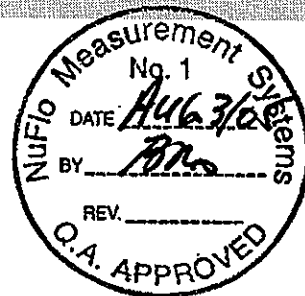
Product# . . . : 40726-002
Customer Part#: 40726-002
Customer . . . : NuFlo Measurement Systems
9207 - 34A Avenue
Edmonton AB T6E 5T6
Canada

Order/Item# . . : 26439 / 1
Customer P.O.#: XP50391

2" S/C LID

Prepared by: [Signature]
Quality Assurance Technician

Heat Treatment: NORMALIZED AND TEMPERED



Melt#	Quantity	Date	Heat Treat	BATCH #	Specification
3-2305	2	5/19/05	ZR9	-	ASTM A216 GRADE WCB

. C H E M I C A L S

C : .1990	MN : .8170	SI : .4170	P : .0150
S : .0140	NI : .0580	CR : .1390	MO : .0330
CU : .1300	V : .0110		

CE : .3843

. P H Y S I C A L S

YIELD KSI 46.1	TENSILE KSI 78.0
ELONGATION % 29	RED OF AR. % 55

Melt#	Quantity	Date	Heat Treat	BATCH #	Specification
3-2310	7	5/20/05	ZS1	-	ASTM A216 GRADE WCB

. C H E M I C A L S

C : .2150	MN : .7640	SI : .4850	P : .0230
S : .0160	NI : .0640	CR : .1410	MO : .0290
CU : .1430	V : .0110		

CE : .3923

. P H Y S I C A L S

YIELD KSI 46.2	TENSILE KSI 77.2
ELONGATION % 33	RED OF AR. % 58

MATERIAL TEST REPORT

9670-187th Street, Surrey, BC Canada V4N 3N6

Phone 604-888-8444 Fax 604-888-3634

www.highlandfoundry.com



ISO 9001:2000

CLIENTE / Customer / Client

VAN LEEUWEN PIPE AND TUBE CAN
2875 44TH AVENUE
EDMONTON - ALBERTA T6P 1R1
CANADA

CERTIFICADO DE INSPECCION
Works Certificate - Certificat d'Usine

DIN 50049 / 3 1 B
EN 10204 / 3 1 B
ISO 10474 / 3 1 B

FECHA / Date: 12/08/2005
N°: 102400

HOJA / Page: 1

N°: 922184

ULMA FORJA S COOP



FLANGES

PRODUCTO / Product: **FLANGES**
Item: **ASME B16.5-96**

ASTM A105N-03
ASME SA105N

SUPEDIDO N° / Your Order No: 45000227
Vols Cde N°

DE / of: 20/05/2005

Certified acc PED 97/23/EC
by TÜV Rheinland
N° 01 202 EQ 02 1443

Bº Zubillaga 3 Apdo 14
20550 ONATI (Gipuzkoa) SPAIN
Tel 34 943 780552
Tel 34 943 781808
E mail: tojea@tdg.ulma.es

MATERIAL CORRESPONDIENTE / Material Correspondent: **ASTM A105N-03**
ASME SA105N
MATERIALES Normas Aplicables

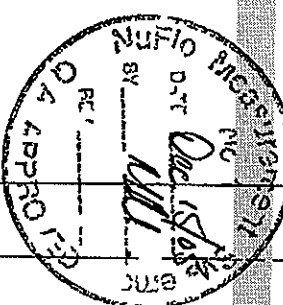
NACE MR-01-7503
CANICSA-224612
GR-248 CAT 1

DEPARTAMENTO / DEPARTMENT: **QUALITY ASSURANCE**
Sección / Section: **Depositar**



47761

PARTIDA / Item / Poste	CANTIDAD / Quantity / Cantidad	DESCRIPCION / Description / Description	OBSERVACIONES / Remarks / Observations	COLADA N° / Heat No / N° Caudale	RESISTENCIA / T Strength / Resist. Sup / Minm2	LONGITUD / Length / Longitud / Minm2	ALUMINIO / Alumin. / Alumin. / %	ESTRUCION / Structure / Estructura / %	RESILIENCIA / Impact Test / Resiliencia / Joules	MOLE / Mould / Molde / mm	TEMPERATURA / Temperature / Temperatura / °C	DUREZA / Hardness / Dureza / HB
55 4901	300	VAN 2 800LB S80 RF A105N	NE	258A5	516	315	32.40	65.70				150
56 4901	1.500	VAN 2 800LB S80 RF A105N	NE	268A5	516	313	32.00	64.80				149
70 24041	900	VAN 2 800LB S90 RF A105N	NE	278A5	517	316	32.80	65.10				150
74 24033	105	VAN 2 1500LB S160 RF A105N	NE	214A5	517	320	32.80	66.20				150
76 24074	120	VAN 2 1500LB S160 RF A105N	NE	255A5	513	317	33.10	66.30				148
83 24124	5	VAN 6 300LB S160 RF A105N	NE	224A5	515	313	32.30	65.00				151
84 24149	20	VAN 2 2500LB S100X5 REPTU A105N V01 SIGMAF	NE	209A5	520	317	31.70	63.80				151
87 24149	40	BLIND 2 1500LB RF A105N	NE	258A5	516	315	32.40	65.70				150
90 24204	15	BLIND 4 800LB RF A105N	NE	258A5	513	317	33.10	66.30				149
	110	THR 3 600LB RF A105N	NE	375AX	517	305	30.60	57.00				150

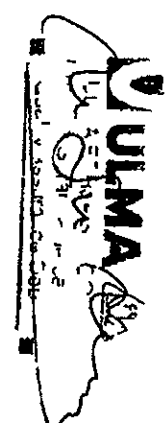


COMPOSICION QUIMICA - STEEL MARKERS - ANALYSE CHIMIQUE

COLADA N° / Heat No / N° Caudale	C %	SI %	Mn %	P %	S %	Cr %	Ni %	Mo %	Nb %	V %	Cu %	CEQ %
209A5	0.200	0.220	0.800	0.012	0.004	0.100	0.130	0.030	0.007	0.001	0.330	0.407
214A5	0.180	0.250	0.870	0.012	0.005	0.050	0.100	0.020	0.007	0.001	0.290	0.391
224A5	0.180	0.280	0.870	0.029	0.005	0.050	0.110	0.030	0.007	0.002	0.320	0.390
255A5	0.180	0.230	0.830	0.014	0.008	0.080	0.080	0.030	0.007	0.003	0.220	0.388
258A5	0.180	0.240	0.870	0.012	0.005	0.080	0.080	0.040	0.007	0.003	0.290	0.389
268A5	0.180	0.240	0.830	0.015	0.003	0.100	0.090	0.010	0.007	0.001	0.150	0.383
275AX	0.180	0.300	0.830	0.011	0.004	0.100	0.090	0.040	0.007	0.001	0.290	0.370
375AX	0.210	0.200	0.970	0.018	0.025	0.050	0.170	0.020	0.002	0.004	0.230	0.420

Las dimensiones y la conducta superficial se hallaron satisfactorias
Dimension and surface condition were found acceptable
Les dimensions et états de surface sont satisfaisants
Las materiales citados cumplen las normas aplicables
Manufacturing requirements are satisfied
Les normes applicables sont respectées

EL INSPECTOR / Works Inspector / L'inspecteur



OBSERVACIONES / Remarks / Observations: **NORMALIZED AT 900 C AND ALLOWED TO COOL IN STILL AIR**

HEAT NUMBER : 56599
 TRANS AM PIPING PRODUCTS - REV'D BY
 Shipment/Seq # 3 6 - 1059 2

1/2X3/4-36 CL 3000 FS THREADED PIPET
 A105N



Manufacturer of Piping & Pressure Vessel Components
 4407 Haygood St Houston, TX 77022
 Phone 713 695 3633 Fax 713 695 3528
 A Division of BONNEY FORGE

SOLD TO: TRANS AM PIPING (CALGARY)
 7025 - 44TH STREET S E
 CALGARY, AB, CN T2C 4E8

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary of containment No welding performed

MTR # 104810
 PD # CI-05-863
 SALES ORDER #: C513091 DATE: 01/24/2006

We certify that the contents of this report are correct and accurate and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard and that the material conforms to the dimensional requirements of the order This document is in accordance with EN10204 3 1

CERTIFIED MATERIAL TEST REPORT

MATERIAL. A/SA105N 01

HEAT CODE: 56599

ITEM	Quantity	Description
10		36 - 3/4 X 1/2 3000 THP A/SA105N

CHEMICAL COMPOSITION:

LADLE	C	MN	P	S	SI	CU	NI	CR
	0.190	1.030	0.009	0.021	0.210	0.130	0.030	0.070
	0.020	0.000	0.016					

CARBON EQUIVALENCY: LADLE 0.390

MECHANICAL PROPERTIES.

	TENSILE PSI	YIELD PSI	ELONG %	RA %	HARDNESS
PRODUCT	74,000	50,500	33.00%	63.00%	144 BHN 144 BHN

Normalized

Marie Dehmer
 Quality Assurance Representative



HEAT NUMBER : 56593
 TRANS AM PIPING PRODUCTS - REV'D BY:
 Shipment/Seq #: S 5 - 1725 2

3/4X1 1/2-36 3000# FS THREADED PIPET
 A105N



Manufacturer of Piping & Pressure Vessel Components
 4407 Haysgood St Houston, TX 77022
 Phone 713 695 3633 Fax 713 695 3529
 A Division of BONNEY FORGE

Page: 1

SOLD TO: TRANS AM PIPING (CALGARY)
 7025 - 44TH STREET S E
 CALGARY, AB, CN T2C 4E0

This product has not come in direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary of containment No welding performed

We certify that the contents of this report are correct and accurate and that all test results and operations performed by WFI or its subcontractors are in compliance with the material specification and requirements of the referenced code or standard and that the material conforms to the dimensional requirements of the order This document is in accordance with EN10204 31

MTR #: 101149

PD #: CI-05-738

SALES ORDER #: C510977 DATE: 11/04/2005

CERTIFIED MATERIAL TEST REPORT

MATERIAL: A/SA105N 01

HEAT CODE: 56593

ITEM	Quantity	Description
14		36 - 1 1/2 X 3/4 3000 THP A/SA105N

36 - 1 1/2 X 3/4 3000 THP
 A/SA105N

CHEMICAL COMPOSITION:

LADLE	C	MN	P	S	SI	CU	NI	CR
	0.200	1.050	0.007	0.021	0.220	0.070	0.020	0.030
	0.010	0.000	0.014					

CARBON EQUIVALENCY: LADLE 0.389
 MECHANICAL PROPERTIES:

	TENSILE PSI	YIELD PSI	ELONG %	RA %	HARDNESS
PRODUCT	74,000	49,400	33.00%	67.00%	144 BHN 147 BHN

Normalized

Marie Dehmer
 Quality Assurance Representative





**Vallourec
Précision
Étirage**

Vallourec Précision Etirage
N°01BP77 ZI VILRY MAROLLES
51363 Villy-le-François France
tel 03 26 41 23 00
fax 03 26 41 23 10

MATERIAL TEST REPORT

INSPECTION CERTIFICATE EN 10204 3 1 B

Ref 45 05 291002 2 / 2
N° VIR 214493/01

(C10 (02 C03)
FULL SECTION LONGITUDINAL TENSILE TEST AT ROOM TEMPERATURE

(C00)	(B08)	(C11)	(C12)	(C13)
Test	Heat	Y S	T S	Elong 2
MIN		35000	60000	30
MAX				
01	34371	48138	68512	39
02	33371	46052	68534	40

*** ROCKWELL C HARDNESS MAX 22 GUARANTEED ***
(D01 D99)
NON DESTRUCTIVE TESTS

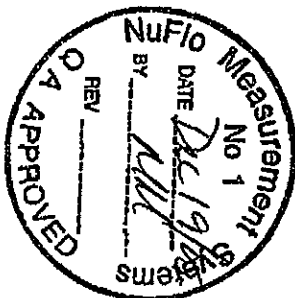
test	test rate	pressure	result
APPEARANCE & DIMENSIONS	100% LOT	psi	OK
HYDROSTATIC TEST	100% LOT	2800	OK

(C50 C69)
TECHNOLOGICAL TESTS

test	result
FLATTENING TEST	OK
MANDREL BEND TEST	OK

(C03) 18/10/2005

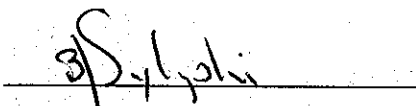
(Z02)
Origin of computer copy Authentically is guaranteed by the Vallourec logo
All the pipes/tubes conform to the requirements of the order and standard regarding the grade quality and heat treatment throughout their whole length
(A05) The agent of the service Quality
MIME SIGARD Vallourec



Certificate Of Compliance

I Hereby Certify That The Below Registered Category "H" Pressure Fitting Has Been Designed, Manufactured, and Pressure Tested In Accordance With The Alberta Safety Codes Act, CSA B51 And ASME Section VIII, Division 1, 2004 Edition, 2005 Addenda.

CRN	0H2422.21345				
S/N	1014.2103				
Diameter	4.5	Inches	Overall Length	30	Inches
Year Built	2006				
MAWP	285	PSIG	@	650	°F
MDMT	-20	°F			
C.A.	0.125	Inches			
Radiography	N/A				
PWHT : Time	N/A	min.	Temp.	N/A	°F
Hydro Tested @	371	PSIG			


Quality Control Manager
BJ SYLYSKI

April 21, 2006

26239

BNV PIPING PRODUCTS CO., LTD.
MILL'S CERTIFICATE

NO. 48 KING ROAD 7889 LT. 101 MILL STREET, 11th DISTRICT, YEGH KOU CITY

Purchaser: TRINDUSTRIEN INC.

PO NO: 170552
Reference No: 26239
Invoice No: EY0001-09

Supplier: APTM 4 204 & APTM 424 GR WPS
For Material: WASTE FROM BRADEN PIPE
APTMA 4, 105

Date: JAN 18, 2006
Page: 14 of 17
Certificate No. 81-0808-898
Spec 3 (PART A) (2001) NACE MR0175-44

No.	ITEMS	DESCRIPTION	SIZE	QTY	UNIT	V	C	E	TENSILE		YIELD	T.S.	S	REMARKS
									STRENGTH	ELONGATION				
131	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
132	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
133	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
134	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
135	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
136	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
137	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
138	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
139	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD
140	PIPE END	1 1/2"	1	1	1	1	1	1	1	1	1	1	1	GOOD

ALL THE INFORMATION, THE APPROVALS OF THE MANUFACTURER AND CERTIFICATION OF THE MATERIALS, AND ALL THE INFORMATION OF THE TEST CERTIFICATE ARE THE PROPERTY OF THE MANUFACTURER AND WILL BE FURNISHED TO THE BUYER FOR HIS INFORMATION ONLY. THE BUYER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE INFORMATION.

MANAGER OF QUALITY

RECEIVED
MAR 06 2006

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MAR 06 2006

ATTN: B.U.

(A04)



V & M FRANCE
Tuberie de St-Saulve
rue du Galibou ZI n°4 - BP 2
59880 Sain-Saulve FRANCE

tel.: 03.27.23.13.01
fax: 03.27.23.15.63

MATERIAL TEST REPORT

(A03)

INSPECTION CERTIFICATE EN 10204 3.1.B

ISO 9001

(A03) Réf: 26-06-018035 1 / 3
(A08) N° V&M: LA1119/08
856/3879 3

(A06) Purchaser : **VAN LEEUWEN PIPE & TUBE (CANADA)**

(A07) Order n° : VM1569 45000360

(B01) SEAMLESS STEEL PIPE, HOT FINISHED (KILLED STEEL)

(B04) HOT FINISHED NORMALIZED CONDITION 928°C (1689 F) min-4h-

ENDS BEVELLED 30° ANTI-RUST COATING DRY VARNISH

(B02) Specification : Service H2S+API 5L(D27000)+PSL H+ASTM A 106 (01/10/04) +ASME SA 106 (01/07/04) + GRADE B +CSA Z245-1 (01/03/99) + GRADE 290 CAT I +NACE MR0175 (17/01/04) + VL/CN-3 RE V.D+ ASTM A 530 (01/10/04) +ASME SA 530 (01/07/04) +ASME SECT. II PART.A PART.D(2004) ADD (2005)

(B06-907)

Steel marking: V & M FRANCE SL 0061 API DATE OF MARKING A/SA106 Z245-1 4 1/2 10.79 B + 290 CAT I PSL I S 2654 PSI HT HEAT NUMBER SCH 40 4 1/2 X 0.237 VM1569 45000360

LENGTH

Y/R	O/R	(B11-B12) Size	(B13) single length	(B10) Quantity	length A	(B14) Weight lb	(B09) Item ref. Item Code 919	(B08) Heat
08	08	NPS 4 SCH 40 114.30 X 6.02 MM	05486/06706MM 215.99/264.03in	982	19371.23	209701		36716
				204	4053.54	43900		
				778	15317.68	165801		36719

(C71-C92)

LADLE ANALYSIS

CE = C + F (MN/6 + SI/24 + CU/15 + NI/20 + (CR + MO + V + NB) / 5 + 5 B) < 0.40% ; HEAT 36716 = 0.35% and HEAT 36719 = 0.35%

(C70) Process	(B08) Heat	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	Nb	V	B
MIN.		0.30	0.10	0.29	0.06	0.030	0.035	0.40	0.15	0.40	0.11	0.11	0.08	0.001
MAX.		%	%	%	%	%	%	%	%	%	%	%	%	%
E	36716	0.17	0.20	0.77	0.011	0.007	0.16	0.04	0.10	0.22	0.02	0.00	0.00	0.000
E →	36719	0.17	0.23	0.76	0.012	0.004	0.15	0.04	0.10	0.16	0.00	0.00	0.00	0.000

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MAR 06 2006



(A03) VALLOUREC & MANNESMANN TUBES
V & M FRANCE
Usine de St Skévie

rue du Galibot ZI n°4 - BP 2
 59880 Saint-Sauve FRANCE
 tel.: 03.27.23.13.01
 fax: 03.27.23.15.63

INSPECTION CERTIFICATE EN 10204 3.1.B

ISO 9001

(A03)R&F: 26-05-018035 2/3
(A08)N°V&M: LA1119/08
856/3879 3

(C71-C92)

PRODUCT ANALYSIS

CE = C + F {MN/6 + SI/24 + CU/15 + NI/20 + (CR+MO+V+NB)/5 + SB } < 0.40% ; Tests 1FD044 = 0.35% and 2FD044 = 0.35%
Tests 1FD045 = 0.33% and 2FD045 = 0.34%

(C00) Test	(B08) Heat	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	Nb	V	B
MIN.		0.30	0.10	0.29	0.030	0.035	0.40	0.15	0.40	0.40	0.11	0.11	0.08	0.001
MAX.		0.30	0.50	1.06	0.030	0.035	0.40	0.15	0.40	0.40	0.11	0.11	0.08	0.001
1FD044	36719	0.17	0.23	0.77	0.012	0.004	0.15	0.04	0.10	0.15	0.00	0.00	0.00	0.000
1FD045	36716	0.16	0.19	0.75	0.011	0.004	0.15	0.04	0.10	0.20	0.02	0.00	0.00	0.000
2FD044	36719	0.17	0.23	0.76	0.012	0.004	0.15	0.04	0.10	0.15	0.00	0.00	0.00	0.000
2FD045	36716	0.16	0.20	0.76	0.011	0.005	0.15	0.04	0.10	0.20	0.02	0.00	0.00	0.000

(C10-C02-C03) RECTANGULAR SPECIMEN LONGITUDINAL TENSILE TEST AT ROOM TEMPERATURE

(C00) Test	(B08) Heat	width	thick.	sect.	(C11) Y.S.	(C12) T.S.	(C13) Elong. 2"
MIN.					42000	69000	29
MAX.							
01FD044	36719	19.9	5.6	112.07	44684	71814	33
01FD045	36716	19.9	5.8	117.08	45410	70073	35

ROCKWELL C HARDNESS < OR = 22 GUARANTEED

(D01-D99) NON DESTRUCTIVE TESTS

Test	test rate	specification	pressure psi	hold time sec	result
APPEARANCE & DIMENSIONS	100% LOT				OK
EDDY CURRENT TEST	100% LOT	CSA Z245-1			OK
HYDROSTATIC TEST	100% LOT		2654	5	OK

RECEIVED
MAR 06 2006

(A04)



V&M
V&M FRANCE
Tuberies de St Sauve
rue du Galibot ZI n°4 - BP 2
59880 Saint-Sauve FRANCE
tel.: 03.27.23.13.01
fax: 03.27.23.15.63

V&M
V&M FRANCE
Tuberies de St Sauve

MATERIAL TEST REPORT

(A02)

INSPECTION CERTIFICATE EN 10204 3.1.B

ISO 9001

(A03)R&E: 26-06-018035 3 / 3
(A08)N°V&M: LA11119/08
856/3879 3

(C30-C69)
TECHNOLOGICAL TESTS

test	result
FLATTENING TEST	OK

(201)18/01/2006

(Z02)
Original computer copy - authenticity is guaranteed by the V&M logo.
All the pipes/tubes conform to the requirements of the order and standard regarding the grade, quality and heat treatment throughout their whole length.

(A05)
The authorized expert in Quality Control Section
Mr SKORUPKA

RECEIVED
MAR 06 2006

CERTIFIED

MILL TEST REPORT



The Best Value
Price, Quality, Service
All The Time.

LOG NO. 226062 PAGE 1
BOLTON METALS LTD. 100 SOUTH MOUNTAIN AVENUE
EDMONTON ALBERTA T6E 2W6 CANADA
(514) 546-2260 FAX (514) 546-2262
www.boltonmetals.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 01/26/06

CUSTOMER'S Order No.: 9106201-00

RECEIVED

Shipment Order No: 026260

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
5105 75TH STREET

MAR 06 2006

341928

EDMONTON ALBERTA
EDMONTON ALBERTA, T6E2W6 CANADA

BA/A105N

034 72 3357 7523661 11/2 3M A105N COUP T
C .200 MN 1.110 P .010 S .021 SI .200
NI .020 CU .080 CO .003 CR .030 MO .010
V .000 AL .024 NB .016
CE(LONG FORMULA) = 0.40
T/S 78625 Y/B 53625 EL 32.80 RA 67.00
BRINELL HARDNESS1: 137 HARDNESS2: 139

039 620 3359 7523882 2 3000 A105N HCP T
HT 3359
C .200 MN 1.030 P .008 S .019 SI .200
NI .030 CU .120 CO .004 CR .040 MO .010
V .000 AL .015 NB .015
CE(LONG FORMULA) = 0.39
T/S 78500 Y/B 56375 EL 32.10 RA 65.15
BRINELL HARDNESS1: 137 HARDNESS2: 139

042 2 56658 7524390 4 2M A105N 90EL T
C .180 MN 1.100 P .012 S .016 SI .200
NI .060 CU .170 CO .007 CR .110 MO .020
V .038 AL .031 NB .002
CE(LONG FORMULA) = 0.41
T/S 78625 Y/B 53625 EL 32.55 RA 68.80
BRINELL HARDNESS1: 139 HARDNESS2: 141

049 60 2977 7525044 11/2X 1 3M/6M A105N HXBU T
C .210 MN 1.020 P .010 S .022 SI .200
NI .020 CU .130 CO .003 CR .070 MO .014
V .023 AL .001 NB .002
CE(LONG FORMULA) = 0.41
T/S 79625 Y/B 54875 EL 30.30 RA 60.80
BRINELL HARDNESS1: 156 HARDNESS2: 150

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the manufacturer, or as obtained by additional laboratory checks.

Cris Childers

CONF: REV 1

DELCORTE S.A.
RACCORDS ACIER-STEEL FITTINGS



17, Avenue du Corbeau - BP 597
 59605 MAUBEUGE CEDEX FRANCE
 Tél : 27 69.14.14 Fax : 27.64.25.69

CERTIFICAT DE RECEPTION - ACCEPTANCE CERTIFICATE (DIN 50049 3.1.b - EN 10204 3.1.b)

Customer: _____ Order: _____

Certificate n° 129125/3 23/12/2005 Dispatch note 129125 22/12/2005

Material specification **ASME/ASTM A/SA.105/03 - CONFORMITY NACE MR 0175/03**
 Heat Treatment **NORMALIZED T° C 843-927**

DESCRIPTION

Item	Qty	Designation	Heat N°	Identification	Spec dimension	Location
28	300	CPLG API 3000 1 1/2	24341	JWG	ASME B16.11/01	0404 17007
30		25/CROSS API 3000 2"	73845	DCE	ASME B16.11/01	1206 18314
33	4 000	HALF CPLG API 3000 1/2"	340182	KAS	ASME B16.11/01	0804 17022
34	2 000	HALF CPLG API 3000 3/4"	74855	JXT	ASME B16.11/01	0804 16973
35	1 600	HALF CPLG API 3000 1"	31116	KHV	ASME B16.11/01	0405 17821
37		50 HALF CPLG API 3000 1 1/2	22378	JRC	ASME B16.11/01	0103 16763
38	850	HALF CPLG API 3000 2"	23604	JZM	ASME B16.11/01	0604 17006
39		75 RED TEE API 3000 2" X 1"	74288	CDE	ASME B16.11/01	0505 17917
43		150 STR. ELBOW API 3000 1/2"	78018	H25	DRAWING-THREAD ASME B1.20.1/03	0105 18056
46		250 STR. ELBOW API 3000 1"	74378	H55	DRAWING-THREAD ASME B1.20.1/03	0705 18223
46	35	STR. ELBOW API 3000 1 1/2	72409	ELR	DRAWING-THREAD ASME B1.20.1/03	1109 11826
49		500 TEE API 3000 1"	1T-14874	FIO	ASME B16.11/01	1004 17090
51		150 FF UNION API 3000 2"	20598	D1	BS 3799/74	1305 18217
51		200 FF UNION API 3000 2"	20598	D1	BS 3799/74	1005 18212

CHEMICAL ANALYSIS

Item	Identif.	C %	Si%	Mn%	P%	S%	Cr%	Mo%	V%	Ni%	Cu%	Cb%
		0.260	0.100	0.900								
		maxi	0.360	1.350	0.036	0.040						
28	JWG	0.180	0.180	1.020	0.011	0.030	0.180	0.080	= 0.000	0.080	0.110	= 0.000
30	DCE	0.180	0.150	1.010	0.020	0.027	0.100	0.010	0.002	0.050	0.220	= 0.000
33	KAS	0.200	0.280	1.180	0.019	0.027	0.160	0.020	0.050	0.090	0.021	0.001
34	JXT	0.195	0.190	0.910	0.013	0.024	0.050	0.010	0.002	0.050	0.150	0.000
35	KHV	0.190	0.230	1.040	0.009	0.027	0.180	0.070	= 0.000	0.060	0.130	= 0.000
37	JRC	0.180	0.210	1.040	0.011	0.029	0.080	0.030	= 0.000	0.060	0.160	= 0.000
38	JZM	0.180	0.180	1.080	0.010	0.032	0.140	0.050	= 0.000	0.070	0.100	= 0.000
39	CDE	0.185	0.240	0.950	0.017	0.021	0.100	0.010	0.002	0.050	0.180	0.001
43	H25	0.190	0.200	0.940	0.021	0.020	0.120	0.010	0.003	0.070	0.250	= 0.000
45	H55	0.190	0.220	0.920	0.013	0.018	0.120	0.010	0.002	0.060	0.230	= 0.000
46	ELR	0.180	0.230	0.880	0.003	0.006	0.160	0.020	0.003	0.010	0.170	0.000
49	FIO	0.200	0.240	0.820	0.009	0.010	0.050	0.010	0.001	0.070	0.160	0.002
51	D1	0.200	0.190	0.820	0.010	0.015	0.050	0.020	= 0.000	0.100	0.200	= 0.000
51	D1	0.200	0.190	0.820	0.010	0.016	0.050	0.020	= 0.000	0.100	0.200	= 0.000

MECHANICAL TESTS

Item	Identif.	Re 0.2% N/mm²	Rm N/mm²	A%	Z%	HB
		250.0	485.0	22.0	30.0	
		mini				
		maxi			187	
28	JWG	328.0	512.0	35.0	59.0	148 - 160
30	DCE	321.0	519.0	33.0	68.0	156 - 159
33	KAS	407.0	578.0	23.5	44.0	178 - 177
34	JXT	318.0	514.0	32.5	96.0	180 - 162
35	KHV	358.0	537.0	35.0	82.0	166
37	JRC	348.0	627.0	34.0	66.0	153 - 156
38	JZM	332.0	506.0	37.0	57.0	145
39	CDE	333.0	538.0	34.0	68.0	164 - 166
43	H25	326.0	520.0	33.5	55.5	160 - 166
45	H55	318.0	518.0	30.0	98.0	158 - 159
46	ELR	363.0	520.0	28.0	68.0	182 - 188
49	FIO	365.0	626.0	28.0	66.0	154 - 155
51	D1	353.0	525.0	28.0	53.3	144 - 150
51	D1	356.0	525.0	28.0	83.3	144 - 150

RECEIVED
MAR 16 2006

CERTIFICAT DE RECEPTION - ACCEPTANCE CERTIFICATE (DIN 50049 3.1.b - EN 10204 2.1.1)

Customer: _____ Order: _____	
---------------------------------	--

Certificate n°: 123845 / 2	25/04/2005	Dispatch note 123845
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Material specification: **ASME/ASTM A/SA.105/02 - CONFORMITY NACE MR 0175/03**
 Heat Treatment: **NORMALIZED T° C 843-927**

DESCRIPTION

Item	Qty	Designation	Heat N°	Identification	Spec dimension	Localisation
12	100	COUPLING SW 3000 1"1/2	24341	JWG	ASME B16.11/91	04/04 17007
13	25	COUPLING SW 3000 2"1/2	22540	JZW	ASME B16.11/91	07/04 17010
14	20	CROSS API 3000 3/4"	78043	T19	ASME B16.11/91	03/01 14296
15	50	CROSS API 3000 2"	77973	77973	ASME B16.11/91	10/03 16398
16	100	HALF CPLG API 30001/8"	46825	GMN	ASME B16.11/91	02/00 13409
17	1 200	HALF CPLG API 30001/4"	49575	JZT	ASME B16.11/91	04/04 16900
18	172	HALF CPLG API 30003/8"	73139	HXP	ASME B16.11/91	12/01 14875
19	3 500	HALF CPLG API 30001/2"	227072	JXB	ASME B16.11/91	05/04 16741
20	1 500	HALF CPLG API 30003/4"	74655	JXT	ASME B16.11/91	09/04 16973
21	400	HALF CPLG API 30001"	28763	KDG	ASME B16.11/91	12/04 17323
22	100	HALF CPLG API 30001"1/2	22376	JRC	ASME B16.11/91	01/43 16753
23	650	HALF CPLG API 30002"	22376	JRD	ASME B16.11/91	12/03 16508
23	350	HALF CPLG API 30002"	22376	JRD	ASME B16.11/91	12/03 16508
24	25	CAP API 3000 1"1/4	71941	HTN	ASME B16.11/91	09/01 14534
25	10	CAP API 3000 2"1/2	03/30139	JSZ	ASME B16.11/91	02/04 16748

CHEMICAL ANALYSIS

Item	Identifi.	C%	Si%	Mn%	P%	S%	Cr%	Mo%	V%	Ni%	Cu%	Cb%
mini		0.250	0.100	0.600								
maxi		0.350	1.350	0.035	0.040							
12	JWG	0.180	0.180	1.020	0.011	0.030	0.190	0.060	= 0.000	0.080	0.110	= 0.000
13	JZW	0.178	0.186	1.050	0.016	0.025	0.159	0.040	0.001	0.108	0.211	0.000
14	T19	0.180	0.240	0.890	0.015	0.021	0.070	0.010	0.002	0.060	0.160	0.001
15	77973	0.150	0.190	1.090	0.013	0.015	0.060	0.010	0.003	0.060	0.170	0.001
16	GMN	0.200	0.260	0.660	0.017	0.017	0.100	0.010	0.002	0.070	0.290	0.000
17	JZT	0.190	0.190	0.670	0.010	0.035	0.140	0.010	0.002	0.070	0.160	0.000
18	HXP	0.205	0.210	0.930	0.018	0.022	0.090	0.010	0.002	0.060	0.200	= 0.000
19	JXB	0.200	0.330	1.200	0.024	0.026	0.080	0.010	0.005	0.070	0.150	0.000
20	JXT	0.195	0.190	0.910	0.013	0.024	0.050	0.010	0.002	0.050	0.150	0.000
21	KDG	0.180	0.200	1.040	0.017	0.023	0.170	0.030	= 0.000	0.100	0.230	= 0.000
22	JRC	0.180	0.210	1.040	0.011	0.029	0.080	0.030	= 0.000	0.060	0.100	= 0.000
23	JRD	0.180	0.210	1.040	0.011	0.029	0.080	0.030	= 0.000	0.060	0.100	= 0.000
23	JRD	0.180	0.210	1.040	0.011	0.029	0.080	0.030	= 0.000	0.060	0.100	= 0.000
24	HTN	0.180	0.200	0.880	0.010	0.019	0.060	0.010	0.002	0.060	0.180	= 0.000
25	JSZ	0.180	0.220	0.910	0.012	0.022	0.140	0.020	= 0.000	0.070	0.170	= 0.000

JXT 3/4
JXB 1/2

MECHANICAL TESTS


Item	Identifi-	Re 0.2%	Rm	A%	Z%	HB
mini		250.0	485.0	22.0	30.0	
maxi						187
12	JWG	329.0	512.0	35.0	59.0	149 - 150
13	JZW	331.0	516.0	36.5	65.0	157
14	T19	299.0	518.0	31.0	62.0	164 - 166
15	77973	316.0	510.0	34.0	60.0	154 - 157
16	GMN	345.0	503.0	32.1	45.0	162 - 165
17	JZT	343.0	497.0	32.4	45.0	151 - 153
18	HXP	324.0	524.0	32.0	56.1	155 - 159
19	JXB	369.0	527.0	27.0	45.0	145 - 147
20	JXT	319.0	514.0	32.5	56.8	160 - 162
21	KDG	339.0	525.0	29.0	61.0	150 - 153
22	JRC	348.0	527.0	34.0	55.0	153 - 156
23	JRD	345.0	524.0	34.0	51.0	149 - 150
23	JRD	345.0	524.0	34.0	51.0	149 - 150
24	HTN	310.0	499.0	33.4	58.4	149 - 150
25	JSZ	312.0	503.0	33.2	54.4	174 - 176

REC
AUG 2005

Notre Société garantie que les produits objets du présent certificat respectent en leur totalité les spécifications suivantes (pour les aciers carbone)
 C <= 0.25 % P <= 0.05 % S <= 0.05 % Rm <= 700 N/mm² A > 16 % Rm (A-2) >= 10500 Re <= 0.9 Rm (LO SUR 5.65 V So)

Nous certifions que les produits énumérés ci-dessous sont conformes aux prescriptions de la commande et des spécifications et ont subi, sans objection, les contrôles d'aspect et de dimensions.

We hereby certify that above mentioned products are in accordance with the requirements of the order and specifications and have been checked without objection for surface and dimensional control.

Quality département


KEDDCO MFG. LTD.
 PO Box 999
 645 Keddoe St.
 Sarnia, Ontario N7T 7K6
 Tel: (519) 336-2960
 Fax: (519) 344-3181
 Toll Free: 1-866-511-1381



KEDDCO MFG. LTD.
 4120 - 78 Av.
 Edmonton, AB T6D 3M8
 Tel: (780) 438-4944
 Fax: (780) 435-3917
 Toll Free: 1-800-661-3809

Material Test Report

Report Number: 14008
 Description: 1/2" HEX SWAGES & BULL PLUGS
 Specification: A234-WPB/SA234-WPB
 1/2" X 1/4" SWAG X 1/4" WPB

Date: 6-Oct-05
 Heat Treatment: H.R.
 Material: C1018
 CRN: OA7470.5C

Chemical Analysis

Heat Code: → **K1033**

Heat Number: 598636

C	0.200	Cu	0.140	Al	0.028
Mn	0.830	Ni	0.060		
P	0.014	Cr	0.120		
S	0.026	Mo	0.020	Ti	0.000
Si	0.230	V	0.004		
N	0.000	Nb	0.001		

Mechanical Tests

Yield PSI: 66862
 Elongation @ 2"%: 25.3
 Size: 7/8" HEX

Brinell Hardness:

Tensile PSI: 83345
 Reduction of Area %: 65.1
 CE= 0.380

Charpy Impact Test

Individual Values (ft/lbs.)

(1) (2) (3) @ N/A

We hereby Certify that the material described has been tested in accordance with the specifications, and the results are correct as contained in the records of the Company.



This Material Test Report
 meets DIN50049/en10204
 3.1B Standard 1991

Ian Shields
 Quality Assurance Manager

KEDDCO MFG LTD

KEDDCO MFG. LTD.
 PO Box 999
 645 Kedcco St.
 Sarnia, Ontario N7T 7K6
 Tel: (519) 336-2960
 Fax: (519) 344-3181
 Toll Free: 1-866-511-1381



KEDDCO MFG. LTD.
 4120 - 78 Av.
 Edmonton, AB T6B 3M8
 Tel: (780) 438-4944
 Fax: (780) 435-3917
 Toll Free: 1-800-661-3809

Material Test Report

Report Number: 12537
 Description: 3/4" HEX SWAGES & BULL PLUGS
 Specification: A234-WPB/SA234-WPB

Date: 7-Dec-04
 Heat Treatment: COLD DRAWN
 Material: C1018
 CRN: OA7470.5C

Chemical Analysis

Heat Code: **→ K864**
 Heat Number: 496908

C	0.190	Cu	0.070	Al	0.027
Mn	0.840	Ni	0.040		
P	0.010	Cr	0.100		
S	0.016	Mo	0.020	Ti	0.000
Si	0.220	V	0.003		
N	0.000	Nb	0.001		

Mechanical Tests

Yield PSI: 60430
 Elongation @ 2"%: 26.9
 Size: 1-1/8" HEX

Brinell Hardness:

Tensile PSI: 78430
 Reduction of Area %: 65.2
 CE= 0.362

Charpy Impact Test

Individual Values (ft/lbs.)

(1) (2) (3) @ N/A

We hereby Certify that the material described has been tested in accordance with the specifications, and the results are correct as contained in the records of the Company.



This Material Test Report meets DIN50049/en10204 3.1B Standard 1991

Ian Shields
 Quality Assurance Manager

KEDDCO MFG LTD

KEDDCO MFG. LTD.
 PO Box 999
 645 KeddcO St.
 Samia, Ontario N7T 7K6
 Tel: (519)336-2960
 Fax: (519)344-3181
 Toll Free: 1-866-511-1381



KEDDCO MFG. LTD.
 4120 - 78 Av.
 Edmonton, AB T6B 3M8
 Tel: (780)438-4944
 Fax: (780)435-3917
 Toll Free: 1-800-661-3809

Material Test Report

Report Number:	13826	Date:	24-Aug-05
Description:	1" HEX SWAGES & BULL PLUGS	Heat Treatment:	COLD DRAWN
Specification:	A234-WPB/SA234-WPB	Material:	C1018
		CRN:	OA7470.5C

Chemical Analysis

Heat Code: → **K1010**
Heat Number: 598636

C	0.200	Cu	0.140	Al	0.028
Mn	0.830	Ni	0.060		
P	0.014	Cr	0.120		
S	0.026	Mo	0.020	Ti	0.000
Si	0.230	V	0.004		
N	0.000	Nb	0.001		

Mechanical Tests

Yield PSI:	56988	Tensile PSI:	75424
Elongation @ 2"%	28.3	Reduction of Area %	65
Size:	1-3/8" HEX	Brinell Hardness:	156
		CE=	0.380

Charpy Impact Test

Individual Values (ft/lbs.) (1) (2) (3) @ N/A

We hereby Certify that the material described has been tested in accordance with the specifications, and the results are correct as contained in the records of the Company.



This Material Test Report meets DIN50049/en10204 3.1B Standard 1991

Ian Shields
 Quality Assurance Manager

KEDDCO MFG LTD

CSP Products Ltd
3911-76 Ave
Edmonton, AB
T6B 2S8
Phone: (780) 465-0303 Fax : () 465-0304

MILL TEST REPORT
Date: 06/02/06
10:34:51

Heat Code: SADH
Mill Heat#: 511265
Item Description: 2 X 1 80 CONC TBE PTD
Specification: A234 WPB
Raw Description: 63 MM Rnd. Bar

Chemical Analysis:

C: 0.117	MN: 0.646	P: 0.012	S: 0.027
SI: 0.204	CR: 0.001	NI: 0.054	CU: 0.016
MO: 0.000	CO: 0.000	AL: 0.000	V: 0.000
CB/NB: 0.000	TI: 0.000	W: 0.000	FE: 0.000
SR: 0.000	ZN: 0.000	SN: 0.000	CE: 0.226

Mechanical Tests:

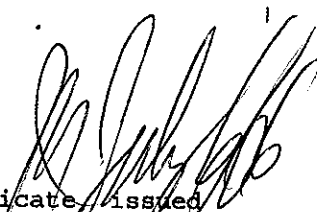
Yield PSI: 48540	Yield MPA:
Tensile PSI: 68382	Tensile MPA:
Elongation: 36	Reduction: 0.0
BHN Hard: 150	Charpy Temp:
Charpy 1: 0.0	Charpy 2: 0.0
Charpy 3: 0.0	Charpy 2: 0.0

Other Tests:

Heat Treatment Process Type:

Certification:

We certify that this is a true & correct copy of the mill certificate issued by the manufacturer of the steel employed or the laboratory which has determined it, as retained in the records of the company. CSP makes no representation beyond those of the manufacturer or its agent. CSP certifies that the material used to manufacture swage nipples, bull plugs, spec blinds & bleed rings have been processed & heat treated to comply with all requirements of DI N/EN 10204 & the chemical & physical properties of the raw material fall within the required ranges. CSP also certifies that this product meets the requirements of NACE MR0175-03 revision, MSS-SP95 & ASME B16-48 specifications.



CERTIFIED MILL TEST REPORT



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LOG NO. 225415 PAGE 1

BONNEY FORGE
P.O. BOX 330 • U.S. RTE 522 SOUTH • MOUNT UNION, PA 17066-0330
(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 01/09/06

CUSTOMER'S Order No.: 9105834-00

Bonney Order No. 1024886

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
5105 75TH STREET

337893

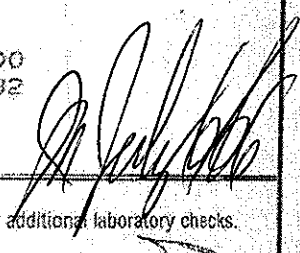
EDMONTON ALBERTA
EDMONTON ALBERTA, T6E5S5 CANAD

5 3m 90 EL

ITEM	QUANTITY	LOT NO	GRADE OR SPECIFICATION NO	CHEMICAL ANALYSIS	PHYSICAL PROPERTIES	REMARKS
SA/A105N						
002	25	56498	7520034	3/4 3M A105N STEEL T		
				C .190 MN 1.040 P .013 S .018 SI 190		
				NI .040 CU .140 CO .003 CR .060 MO .020		
				V .001 AL .027 NB .011		
				CE(LONG FORMULA) = 0.39		
				T/S 75127 Y/S 52284 EL 33.15 RA 71.62		
				BRINELL HARDNESS1: 137 HARDNESS2: 135		
005	100	3322	7520220	1/4 3000 A105N HCF T		
				C .200 MN 1.050 P .007 S .021 SI 220		
				NI .020 CU .070 CO .004 CR .030 MO .010		
				V .000 AL .021 NB .014		
				CE(LONG FORMULA) = 0.39		
				T/S 77750 Y/S 54125 EL 33.25 RA 70.75		
				BRINELL HARDNESS1: 139 HARDNESS2: 137		
017	575	56613	7522657	1/2 3000 A105N 90EL T		
				C .190 MN 1.000 P .008 S .018 SI 230		
				NI .040 CU .160 CO .004 CR .050 MO .020		
				V .000 AL .020 NB .013		
				CE(LONG FORMULA) = 0.36		
				T/S 75625 Y/S 53500 EL 32.00 RA 67.25		
				BRINELL HARDNESS1: 132 HARDNESS2: 132		
023	700	3334	7523572	3/4 3M A105N COUP T		
				C .180 MN .980 P .014 S .021 SI 180		
				NI .040 CU .130 CO .003 CR .070 MO .020		
				V .000 AL .018 NB .013		
				CE(LONG FORMULA) = 0.37		
				T/S 75000 Y/S 54375 EL 32.35 RA 67.00		
				BRINELL HARDNESS1: 135 HARDNESS2: 132		

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by 
Cris Childers

CMTR: REV 1

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



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LOG NO. 222951 PAGE 10

BONNEY FORGE
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(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 10/07/05

CUSTOMER'S Order No.: 9104512-00

Bonney Order No 020052

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
5105 73TH STREET

324147

EDMONTON ALBERTA
EDMONTON ALBERTA, T6E5B5 CANAD

ITEM	QUANTITY	LOT NO	GRADE OR SPECIFICATION NO	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS
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030	225	06554	7522683	<p style="text-align: center;">SA/A105N</p> <p>3/4 3M A105N 90EL T C .200 MN 1.050 P .011 S .020 SI .180 NI .030 CU .150 CO .003 CR .060 MO .010 V .000 AL .021 NB .014 CE(LONG FORMULA) = 0.40 T/S 75125 Y/S 50875 EL 33.20 RA 67.90 BRINELL HARDNESS1: 135 HARDNESS2: 135</p>
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031	145 → 56546	7522711	1 3000 A105N 90EL T	<p>C .190 MN 1.120 P .007 S .025 SI .200 NI .030 CU .109 CO .003 CR .060 MO .010 V .000 AL .022 NB .014 CE(LONG FORMULA) = 0.40 T/S 76500 Y/S 53750 EL 31.80 RA 60.55 BRINELL HARDNESS1: 139 HARDNESS2: 139</p>
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032	50 2869	7522732	3/8 3M A105N CAP T	<p>C .190 MN 1.040 P .007 S .027 SI .240 NI .020 CU .090 CO .002 CR .040 MO .010 V .023 AL .001 NB .000 CE(LONG FORMULA) = 0.39 T/S 79250 Y/S 55250 EL 30.15 RA 66.75 BRINELL HARDNESS1: 144 HARDNESS2: 144</p>
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033	160 3279	7522762	3/4 3000 A105N CAP T	<p>C .200 MN 1.140 P .009 S .019 SI .210 NI .050 CU .150 CO .004 CR .050 MO .020 V .000 AL .019 NB .012 CE(LONG FORMULA) = 0.42 T/S 76508 Y/S 55025 EL 30.35 RA 56.38 BRINELL HARDNESS1: 137 HARDNESS2: 137</p>
-----	----------	---------	----------------------	---

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by
Cris Childers

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



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LOG NO. 226516 PAGE 4

BONNEY FORGE
P.O. BOX 330 • U.S. RTE 522 SOUTH • MOUNT UNION, PA 17066-0330
(814) 542-2545 • (800) 345-7546 • FAX (814) 642-4008
www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 02/08/06

CUSTOMER'S Order No.: 9106523-00

Bonney Order No. 027654

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
3105 75TH STREET

344636

EDMONTON ALBERTA
EDMONTON ALBERTA, T6E5S5 CANAD

GRADE OR SPECIFICATION NO.
CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS.

SA/A105N

ITEM	QUANTITY	LOT NO.	DESCRIPTION	C	MN	P	S	SI	CU	CO	CR	MO	AL	NB	V	REMARKS
030	135	56671	7522819 2 3000 A105N 90EL T	.200	1.110	.010	.021	.200	.020	.080	.003	.030	.000	.024	.016	CE(LONG FORMULA) = 0.40 T/S 76375 Y/S 50625 EL 32.70 RA 68.35 BRINELL HARDNESS1: 137 HARDNESS2: 132
036	375	3322	7523483 1/4 3M A105N COUP T	.200	1.050	.007	.021	.220	.020	.070	.004	.030	.000	.021	.014	CE(LONG FORMULA) = 0.39 T/S 77750 Y/S 54125 EL 33.25 RA 70.75 BRINELL HARDNESS1: 139 HARDNESS2: 137
053	1500	3377	7524838 1 X 1/2 3M/6M A105N HXBU T	.220	1.010	.013	.018	.200	.040	.110	.003	.070	.000	.019	.017	CE(LONG FORMULA) = 0.42 T/S 78500 Y/S 54500 EL 31.65 RA 63.50 BRINELL HARDNESS1: 139 HARDNESS2: 137
054	275	3388	7524862 1X3/4 3M/6M A105N HXBU T	.200	1.140	.010	.022	.190	.020	.060	.030	.010	.018	.014	.000	CE(LONG FORMULA) = 0.40 T/S 76375 Y/S 53625 EL 32.35 RA 67.90 BRINELL HARDNESS1: 137 HARDNESS2: 135

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

[Signature]
Cris Childers

CMTR: REV 1

QUALITY PROCESS MANAGER



U.S. ROUTE 522 SOUTH
 P.O. BOX 330
 MOUNT UNION, PA 17066
 (814) 542-2545 (800) 345-7546
 FAX (814) 542-9977 TELEX 910-240-9091

CERTIFIED MILL TEST REPORT

CCTF - DIV. OF EMCO LTD.

05/29/06

LOT NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS
----------------	--

56790 2" 3M A105N 45 Degree Elbow Threaded

C	0.200	MN	1.040	P	0.010	S	0.018	SI	0.210
NI	0.040	CR	0.040	MO	0.010	CU	0.190	CO	0.004
V	0.000	AL	0.019	NB	0.015				
CE (LONG FORMULA) = 0.399									
T/S 78518 Y/S 54271 EL 33.000 RA 67.740									
BRINELL HARDNESS: 139									

1. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF NACE MRO175-2003 AND MRO103-2003
2. THE MATERIAL SUPPLIED WAS INSPECTED AND MANUFACTURED IN ACCORDANCE WITH EN DIN 10204 3.1.B.
3. CERTIFYING ASTM A105-05 / ASME SA105-04 EDITION
4. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM HEAT TREATING REQUIREMENTS.

This document has been electronically submitted.

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U.S. ROUTE 522 SOUTH
 P.O. BOX 330
 MOUNT UNION, PA 17066
 (814) 542-2545 (800) 345-7546
 FAX (814) 542-9977 TELEX 910-240-9091

CERTIFIED MILL TEST REPORT

Westlund

04/18/06

LOT NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS																																																												
<div style="text-align: right; margin-bottom: 5px;">→</div> 56687	1/2" 2MA105 90 Degree Elbow Threaded <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 5%;">C</td><td style="width: 10%;">0.200</td><td style="width: 5%;">MN</td><td style="width: 10%;">1.030</td><td style="width: 5%;">P</td><td style="width: 10%;">0.005</td><td style="width: 5%;">S</td><td style="width: 10%;">0.019</td><td style="width: 5%;">SI</td><td style="width: 10%;">0.210</td></tr> <tr> <td>NI</td><td>0.030</td><td>CR</td><td>0.040</td><td>MO</td><td>0.020</td><td>CU</td><td>0.150</td><td>V</td><td>0.000</td></tr> <tr> <td>AL</td><td>0.024</td><td>NB</td><td>0.014</td><td colspan="6"></td></tr> <tr> <td colspan="10" style="text-align: center;">CE (LONG FORMULA) = 0.396</td></tr> <tr> <td colspan="10" style="text-align: center;">T/S 80750 Y/S 53750 EL 30.250 RA 63.000</td></tr> <tr> <td colspan="10" style="text-align: center;">BRINELL HARDNESS: 156</td></tr> </table>	C	0.200	MN	1.030	P	0.005	S	0.019	SI	0.210	NI	0.030	CR	0.040	MO	0.020	CU	0.150	V	0.000	AL	0.024	NB	0.014							CE (LONG FORMULA) = 0.396										T/S 80750 Y/S 53750 EL 30.250 RA 63.000										BRINELL HARDNESS: 156									
C	0.200	MN	1.030	P	0.005	S	0.019	SI	0.210																																																				
NI	0.030	CR	0.040	MO	0.020	CU	0.150	V	0.000																																																				
AL	0.024	NB	0.014																																																										
CE (LONG FORMULA) = 0.396																																																													
T/S 80750 Y/S 53750 EL 30.250 RA 63.000																																																													
BRINELL HARDNESS: 156																																																													

1. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF NACE MRO175-2003 AND MRO103-2003.
2. THE MATERIAL SUPPLIED WAS INSPECTED AND MANUFACTURED IN ACCORDANCE WITH EN DIN 10204 3.1.B.
3. CERTIFYING ASTM A105-03 / ASME SA105-04 EDITION

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CERTIFIED MILL TEST REPORT



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LOG NO. 223016 PAGE 8

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 www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 10/10/05

CUSTOMER'S Order No.: 7165221-00

Bonney Order No 020419

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
 7703 EDGAR INDUSTRIAL DRIVE
 UNIT #6

325020

RED DEER, AB, T4P 3R2 CANADA

1 3M TEE

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
------	----------	---------	----------------------------	--

SA/A105N

028	230 56440	7523238	1 3000 A105N TEE T	C .200 MN .960 P .009 S .020 SI .250 NI .040 CU .200 CO .003 CR .050 MO .009 V .024 AL .001 NB .001 CE(LONG FORMULA) = 0.39 T/S 79000 Y/S 51125 EL 32.60 RA 66.30 BRINELL HARDNESS1: 150 HARDNESS2: 147
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029	35	56457	7523297	1 1/2 3M A105N TEE T C .210 MN 1.070 P .008 S .020 SI .260 NI .020 CU .080 CO .002 CR .060 MO .007 V .018 AL .001 NB .000 CE(LONG FORMULA) = 0.41 T/S 81030 Y/S 54271 EL 33.00 RA 68.84 BRINELL HARDNESS1: 137 HARDNESS2: 141
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030	240	56510	7523327	2 3000 A105N TEE T C .200 MN 1.090 P .003 S .018 SI .220 NI .030 CU .160 CO .003 CR .040 MO .010 V .000 AL .023 NB .009 CE(LONG FORMULA) = 0.40 T/S 76403 Y/S 54337 EL 32.75 RA 70.36 BRINELL HARDNESS1: 135 HARDNESS2: 135
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031	50	3116	7523513	3/8 3M A105N COUP T C .200 MN 1.080 P .009 S .018 SI .220 NI .010 CU .050 CO .003 CR .060 MO .007 V .021 AL .000 NB .000 CE(LONG FORMULA) = 0.40 T/S 79000 Y/S 53500 EL 32.45 RA 70.10 BRINELL HARDNESS1: 135 HARDNESS2: 141
-----	----	------	---------	--

***** CONTINUED ON NEXT PAGE *****

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[Signature]
 by *[Signature]*

Cris Childers

QUALITY PROCESS MANAGER

CMTR: REV 1

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LOG NO. 225407 PAGE

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www.borneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 01/09/06

CUSTOMER'S Order No.: 7165731-00

Borney Order No. 023861

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
7703 EDGAR INDUSTRIAL DRIVE
UNIT #6

338407

RED DEER, AB, T4P 3R2 CANADA

2 3M TEE

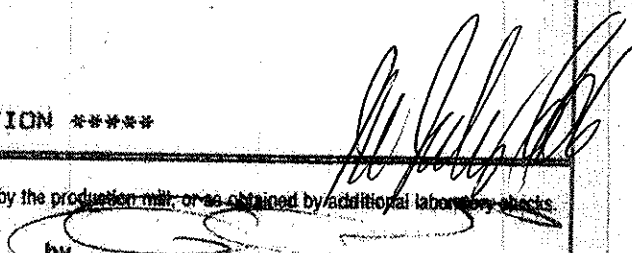
SA/A105N

008 → 56657 7523327 2 3000 A105N TEE T
C .200 MN 1.020 P .007 S .023 SI 250
NI .050 CU .170 CD .004 CR .040 MO 020
V .000 AL .020 NB .013
CE(LONG FORMULA) = 0.40
T/S 77375 Y/S 53500 EL. 30.95 RA 63.00
BRINELL HARDNESS1: 135 HARDNESS2: 137

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
3. CERTIFYING ASTM A105-03 / ASME SA105-04 EDITION.
4. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
5. THE MATERIAL SUPPLIED WAS INSPECTED AND MANUFACTURED IN ACCORDANCE WITH EN DIN 10204 3.1.8.
6. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2003 AND NACE MR0175-2003.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by 
Cris Childers

CMTR: REV 1

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www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 02/13/06

CUSTOMER'S Order No.: 487582E-00

Bonney Order No. 027272

SHIPPED TO: CCTF CORPORATION

344796

5407 - 53 AVENUE

EDMONTON ALBERTA, T6B 3G2 CANA

2X1 TEE 3M A105

HEAT: 56701 SKU: 7520190 DESC: 2X1 3000 FS SCRD RED TEE

SA/A105N

006	25	56682	7522711	1 3000 A105N 90EL T				
				C .200 MN 1.040 P .005 S .020 SI .240				
				NI .050 CU .170 CR .030 MO .016 V .000				
				AL .017 NB .014				
				CE(LONG FORMULA) = 0.40				
				T/S 75250 Y/S 53500 EL 31.85 RA 64.45				
				BRINELL HARDNESS1: 141 HARDNESS2: 144				
009	400	56646	7523173	1/2 3000 A105N TEE T				
				C .190 MN 1.100 P .010 S .019 SI .210				
				NI .040 CU .120 CO .003 CR .040 MO .020				
				V .000 AL .019 NB .014				
				CE(LONG FORMULA) = 0.40				
				T/S 75750 Y/S 52125 EL 33.00 RA 69.00				
				BRINELL HARDNESS1: 137 HARDNESS2: 132				
013	340	56701	7520190	2X2X1 3M A105N TEE T				
				C .180 MN 1.000 P .011 S .022 SI .230				
				NI .066 CU .190 CR .104 MO .017 V .025				
				CB .009				
				CE(LONG FORMULA) = 0.39				
				T/S 79250 Y/S 53375 EL 30.80 RA 62.75				
				BRINELL HARDNESS1: 137 HARDNESS2: 147				
001	120	2807 MALE	7527101	1 6M A105N UNAR T				
				C .190 MN 1.040 P .024 S .026 SI .240				
				NI .040 CU .140 CO .004 CR .060 MO .012				
				V .025 AL .001 NB .000				
				CE(LONG FORMULA) = 0.39				
				T/S 78375 Y/S 51750 EL 31.65 RA 64.70				
				BRINELL HARDNESS1: 139 HARDNESS2: 139				

***** CONTINUED ON NEXT PAGE *****

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By:
Greg Childers



BONNEY FORGE

U.S. ROUTE 522 SOUTH
 P.O. BOX 330
 MOUNT UNION, PA 17066
 (814) 542-2545 (800) 345-7546
 FAX (814) 542-9977 TELEX 910-240-9091

1 am 90 EL

CERTIFIED MILL TEST REPORT

Westlund

01/24/06

LOT NO.

CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS

56611

1" 2MA105N 90 Degree Elbow Threaded

C	0.190	MN	1.020	P	0.009	S	0.019	SI	0.170
NI	0.040	CR	0.070	MO	0.020	CU	0.210	CO	0.004
V	0.000	AL	0.020	NB	0.012				
CE(LONG FORMULA) = 0.395									
T/S 73375 Y/S 51250 EL 33.400 RA 66.550									
BRINELL HARDNESS: 127									

1. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF NACE MRO175-2003 AND MRO103-2003
2. THE MATERIAL SUPPLIED WAS INSPECTED AND MANUFACTURED IN ACCORDANCE WITH EN DIN 10204 3.1.B.
3. CERTIFYING ASTM A105-03 / ASME SA105-04 EDITION
4. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM HEAT TREATING REQUIREMENTS.

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CERTIFIED MILL TEST REPORT



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www.bonneyforge.com

CUSTOMER: CCTF CORPORATION

Date 12/29/05

CUSTOMER'S Order No.: 4875219-00

Bonney Order No. 023767

SHIPPED TO: CCTF CORPORATION

335919

5407 - 53 AVENUE

EDMONTON ALBERTA, T6B 3G2 CANA

1 2M TEE

HEAT: 56597 SKU: 7522436 DESC: 1 2000 FS SCRD TEE

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION	CHEMICAL ANALYSIS (WGT %)
			SA/A105N	
002	420	56606	7522126 2 2M A105N 90 EL T	C .200 MN 1.040 P .013 S .021 SI .190 NI .050 CU .130 CO .004 CR .060 MO .020 V .000 AL .023 NB .013 CE(LONG FORMULA) = 0.40 T/S 78125 Y/S 53750 EL 31.70 RA 63.95 BRINELL HARDNESS1: 132 HARDNESS2: 132
004	424	56606	7522312 2 2000 A105N 45EL T	C .200 MN 1.040 P .013 S .021 SI .190 NI .050 CU .130 CO .004 CR .060 MO .020 V .000 AL .023 NB .013 CE(LONG FORMULA) = 0.40 T/S 78125 Y/S 53750 EL 31.70 RA 63.95 BRINELL HARDNESS1: 132 HARDNESS2: 132
008	1	56597	7522436 1 2M A105N TEE T	C .180 MN .980 P .014 S .021 SI .180 NI .040 CU .130 CO .003 CR .070 MO .020 V .000 AL .018 NB .013 CE(LONG FORMULA) = 0.37 T/S 74875 Y/S 31625 EL 32.90 RA 66.55 BRINELL HARDNESS1: 130 HARDNESS2: 132
009	990	56302	7522533 2 2M A105N TEE T	C .200 MN 1.050 P .012 S .025 SI .250 NI .030 CU .090 CO .002 CR .030 MO .008 V .025 AL .001 NB .003 CE(LONG FORMULA) = 0.40 T/S 83125 Y/S 54500 EL 30.50 RA 67.45 BRINELL HARDNESS1: 150 HARDNESS2: 150

***** CONTINUED ON NEXT PAGE *****

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by

Cris Childers

QUALITY PROCESS MANAGER

CMTR: REV 1

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LOG NO. 225195 PAGE 6

BONNEY FORGE
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CUSTOMER: CCTF CORPORATION

Date 12/29/05

CUSTOMER'S Order No.: 4875219-00

Bonney Order No.023767

SHIPPED TO: CCTF CORPORATION

335919

5407 - 53 AVENUE

EDMONTON ALBERTA, T6B 3G2 CANA

QUANTITY	LOT NO
----------	--------

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
3. CERTIFYING ASTM A105-03 / ASME SA105-04 EDITION.
4. THE MATERIAL SUPPLIED WAS INSPECTED AND MANUFACTURED IN ACCORDANCE WITH EN DIN 10204 3.1. B.
5. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
6. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF BOTH NACE MR0103-2003 AND NACE MR0175-2003.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

Cris Childers

CMTR: REV 1

QUALITY PROCESS MANAGER

HEAT: 56597 SKU: 7522436 DESC: 1 2000 FS SCRD TEE

CERTIFIED MILL TEST REPORT



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LOG NO. 221096 PAGE 19

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 www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 07/25/05

CUSTOMER'S Order No.: 9102980-00

Bonney Order No. 1015630

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
 5105 75TH STREET

313475

EDMONTON ALBERTA
 EDMONTON ALBERTA, T6E5S5 CANAD

15 am cross

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
------	----------	---------	----------------------------	--

SA/A105N

042	50	2912	7524745	3/4 X 3/8 3M/6M A105N HXBU T	
				C .190 MN 1.050 P .011 S .025 SI .240	
				NI .030 CU .080 CD .002 CR .050 MO .010	
				V .024 AL .001 NB .000	
				CE(LONG FORMULA) = 0.39	
				T/S 77764 Y/S 53769 EL 30.95 RA 61.86	
				BRINELL HARDNESS1: 147 HARDNESS2: 147	

043		56435	7525370	1/2 2000 A105N CROSS T	
				C .210 MN 1.000 P .009 S .026 SI .240	
				NI .040 CU .120 CD .003 CR .070 MO .011	
				V .024 AL .001 NB .001	
				CE(LONG FORMULA) = 0.41	
				T/S 79000 Y/S 53125 EL 33.15 RA 65.60	
				BRINELL HARDNESS1: 141 HARDNESS2: 144	

044	75	56500	7525486	3/4 3000 A105N 90EL S	
				C .200 MN 1.050 P .008 S .017 SI .180	
				NI .040 CU .130 CD .003 CR .040 MO .010	
				V .000 AL .019 NB .009	
				CE(LONG FORMULA) = 0.40	
				T/S 76375 Y/S 54750 EL 32.25 RA 65.60	
				BRINELL HARDNESS1: 139 HARDNESS2: 139	

045	50	56445	7525737	3/4 3000 A105N TEE S	
				C .200 MN 1.050 P .008 S .016 SI .240	
				NI .040 CU .180 CD .003 CR .050 MO .017	
				V .000 AL .023 NB .012	
				CE(LONG FORMULA) = 0.40	
				T/S 76875 Y/S 54000 EL 31.85 RA 65.85	
				BRINELL HARDNESS1: 144 HARDNESS2: 144	

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill or as obtained by additional laboratory checks.

[Handwritten Signature]
 by _____

Cris Childers

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www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 07/25/05

CUSTOMER'S Order No.: 9102980-00

Bonney Order No. 1015630

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
5105 75TH STREET

313475

EDMONTON ALBERTA
EDMONTON ALBERTA, T6E5S5 CANAD

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
------	----------	---------	--

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
3. CERTIFYING ASTM A105-03 / ASME SA105-04 EDITION.
4. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
5. THE MATERIAL SUPPLIED WAS INSPECTED AND MANUFACTURED IN ACCORDANCE WITH EN DIN 10204 3.1. B.
6. THE MATERIAL SUPPLIED IDENTIFIED AS A105QT WAS QUENCHED AND TEMPERED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
7. THE MATERIAL OF THE FITTINGS SUPPLIED IS ASTM A350-LF2 BUT MEETS THE REQUIREMENTS OF ASME SA350-LF2.
8. THE CHARPY V-NOTCH IMPACT TEST WAS PERFORMED AT -50 DEGREES FAHRENHEIT IN ACCORDANCE WITH A350-LF2.
9. CERTIFYING TO ASTM A350 LF2 04A REVISION.
10. THE MATERIAL SUPPLIED WAS NORMALIZED IN ACCORDANCE WITH ASTM A350 HEAT TREATING REQUIREMENTS.

***** END OF CERTIFICATION *****

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Cris Childers

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 www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 11/07/05

CUSTOMER'S Order No.: 7165528-00

Bonney Order No 022222

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
 7703 EDGAR INDUSTRIAL DRIVE
 UNIT #6

328659

RED DEER, AB, T4P 3R2 CANADA

-5 3m-6m PLUG

ITEM QUANTITY LOT NO. GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:

SA/A105-QT

004	1480	3109	7522541	1/2 3M/6M A105 Q&T HXPL T					
				C .170 MN .770 P .008 S .007 SI .210					
				NI .000 CU .010 CR .030 MD .005 V .000					
				CB .020					
				CE(LONG FORMULA) = 0.31					
				BRINELL HARDNESS1: 139 HARDNESS2: 156					
				→ 3329 7522541 1/2 3M/6M A105 Q&T HXPL T					
				C .170 MN .790 P .006 S .005 SI .220					
				NI .010 CU .020 CR .020 MD .006 V .000					
				CB .020					
				CE(LONG FORMULA) = 0.31					
				BRINELL HARDNESS1: 139 HARDNESS2: 144					

***** CONTINUED ON NEXT PAGE *****

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Cris Childers

QUALITY PROCESS MANAGER

CMTR: REV 1

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LOG NO. 224588 PAGE 2

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www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 12/06/05

CUSTOMER'S Order No.: 9105572-00

Bonney Order No. 023862

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
5105 75TH STREET

333105

EDMONTON ALBERTA
EDMONTON ALBERTA, T6E5S5 CANAD

75 3M 1/4 PLUG

ITEM QUANTITY LOT NO. GRADE OR SPECIFICATION NO.
CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:

SA/A105-QT

014 8160 3329 7522541 1/2 3M/6M A105 Q&T HXPL T
C .170 MN .790 P .008 S .005 SI .220
NI .010 CU .020 CR .020 MO .006 V .000
CB .020
CE(LONG FORMULA) = 0.31
BRINELL HARDNESS1: 139 HARDNESS2: 144

015 673 3218 7522550 3/4 3M/6M A105 Q&T HXPL T
C .200 MN .960 P .007 S .005 SI .230
NI .080 CU .060 CR .080 MO .000 V .009
AL .041 NB .000
CE(LONG FORMULA) = 0.39
BRINELL HARDNESS1: 185 HARDNESS2: 141

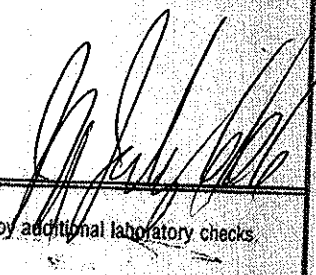


3268 7522550 3/4 3M/6M A105 Q&T HXPL T
C .200 MN .960 P .007 S .005 SI .230
NI .080 CU .060 CR .080 MO .000 V .009
AL .041 NB .000
CE(LONG FORMULA) = 0.39
BRINELL HARDNESS1: 185 HARDNESS2: 141

037 100 3306 7527004 1/8 3M/6M A105 Q&T HXPL T
C .210 MN .880 P .008 S .007 SI .190
NI .010 CU .040 CR .030 MO .012 V .000
CB .020
CE(LONG FORMULA) = 0.37
BRINELL HARDNESS1: 139 HARDNESS2: 147

***** CONTINUED ON NEXT PAGE *****

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by 
Cris Childers

QUALITY PROCESS MANAGER

CMTR: REV 1

CERTIFIED MILL TEST REPORT



BONNEY FORGE

U.S. ROUTE 522 SOUTH
 P.O. BOX 330
 MOUNT UNION, PA 17066
 (814) 542-2545 (800) 345-7546
 FAX (814) 542-9977 TELEX 910-240-9091

LOG NO. 220911 PAGE 4

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 07/19/05

CUSTOMER'S Order No.: 9102637-00

Bonney Order No. 014543

SHIPPED TO: WESTLUND INDUSTRIAL
 5105 75TH STREET

Mark 0836

EDMONTON ALBERTA
 EDMONTON ALBERTA, T6E5S5 CANAD

1 3M-6M PLUG

ITEM QUANTITY LOT NO. GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS.

SA/A105N

ITEM	QUANTITY	LOT NO.	DESCRIPTION	C	MN	P	S	SI	CU	CO	CR	MO	NB	AL
011	2150	2985	7522576 1 3M/6M A105N HXPL T	.200	1.080	.011	.029	.270	.010	.050	.001	.050	.000	
			CE(LONG FORMULA) = 0.40											
			T/S 77500 Y/S 55500 EL 30.30 RA 62.30											
			BRINELL HARDNESS1: 147 HARDNESS2: 147											
	3057	7522576	1 3M/6M A105N HXPL T	.190	1.020	.010	.023	.260	.020	.080	.002	.050	.001	
			CE(LONG FORMULA) = 0.38											
			T/S 77000 Y/S 49100 EL 36.00 RA 71.00											
			BRINELL HARDNESS1: 153 HARDNESS2: 150											
	3094	7522576	1 3M/6M A105N HXPL T	.190	1.070	.008	.026	.260	.020	.080	.002	.030	.001	
			CE(LONG FORMULA) = 0.39											
			T/S 76000 Y/S 51875 EL 31.80 RA 64.90											
			BRINELL HARDNESS1: 144 HARDNESS2: 137											
012	1090	3028	7522614 2 3M/6M A105N HXPL T	.200	1.020	.012	.022	.230	.020	.080	.002	.060	.001	
			CE(LONG FORMULA) = 0.40											
			T/S 76500 Y/S 49625 EL 30.15 RA 64.90											
			BRINELL HARDNESS1: 135 HARDNESS2: 132											

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill or as obtained by additional laboratory checks.



[Signature]
 by _____

Cris Childers
 QUALITY CONTROL MANAGER

CERTIFIED MILL TEST REPORT



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LOG NO. 225709 PAGE 4

BONNEY FORGE
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(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4906
www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 01/16/06

CUSTOMER'S Order No.: 7166006-00

Bonney Order No. 026258

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
7703 EDGAR INDUSTRIAL DRIVE
UNIT #6

3A0325

RED DEER, AB. T4P 3R2 CANADA

2 3M-6M PLUG

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
			SA/A105N	
019	825	3330 7522576	1 3M/6M A105N HXPL T	C .180 MN 1.010 P .007 S .019 SI .180 NI .050 CU .210 CO .004 CR .060 MO .020 V .000 AL .020 NB .017 CE(LONG FORMULA) = 0.38 T/S 74749 Y/S 52638 EL 31.75 RA 67.54 BRINELL HARDNESS1: 135 HARDNESS2: 135
022	1190	3305 <i>←</i> 7522614	2 3M/6M A105N HXPL T	C .200 MN .990 P .010 S .020 SI .200 NI .030 CU .110 CO .003 CR .040 MO .010 V .000 AL .018 NB .015 CE(LONG FORMULA) = 0.38 T/S 77125 Y/S 54250 EL 32.45 RA 64.70 BRINELL HARDNESS1: 137 HARDNESS2: 139
026	25	3314 7522747	1 3000 A105N CAP T	C .210 MN 1.050 P .008 S .021 SI .260 NI .020 CU .100 CO .003 CR .030 MO .010 V .000 AL .022 NB .011 CE(LONG FORMULA) = 0.40 T/S 78141 Y/S 56030 EL 32.00 RA 63.32 BRINELL HARDNESS1: 139 HARDNESS2: 139
028	55	56570 7523084	2 3000 A105N 45EL T	C .220 MN .990 P .010 S .022 SI .190 NI .020 CU .090 CO .002 CR .040 MO .010 V .000 AL .022 NB .012 CE(LONG FORMULA) = 0.40 T/S 80750 Y/S 55000 EL 31.95 RA 67.25 BRINELL HARDNESS1: 139 HARDNESS2: 139

**** CONTINUED ON NEXT PAGE ****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by 

Cris Childers

CMTR: REV 1

QUALITY PROCESS MANAGER

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 www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 01/14/05

CUSTOMER'S Order No.: 9198964-00

Bonney Order No. 004000

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
 5105 75TH STREET

284806

EDMONTON ALBERTA
 EDMONTON ALBERTA, T6E5S5 CANAD

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
------	----------	---------	--

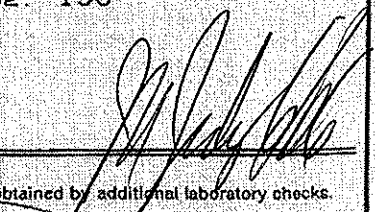
SA/A105N-02

0.7	360	2535 FEMALE	7524005	1/2 3000 A105N UNAR T					
				C .200 MN 1.000 P .020 S .023 SI .260					
				NI .030 CU .120 CR .060 MD .010 V .024					
				AL .001 NB .000					
				CE(LONG FORMULA) = 0.40					
				T/S 77750 Y/S 54000 EL 29.90 RA 52.20					
				BRINELL HARDNESS1: 144 HARDNESS2: 141					
		2785 NUT-DK	7524005	1/2 3000 A105N UNAR T					
				C .200 MN .740 P .013 S .024 SI .300					
				NI .070 CU .160 CR .080 MD .020 V .002					
				AL .038 NB .001					
				CE(LONG FORMULA) = 0.39					
				T/S 77847 Y/S 53094 EL 33.40 RA 68.66					
				BRINELL HARDNESS1: 139 HARDNESS2: 141					
		2995 NUT-DN	7524005	1/2 3000 A105N UNAR T					
				C .190 MN .970 P .010 S .024 SI .290					
				NI .120 CU .140 CR .120 MD .030 V .003					
				AL .036 NB .001					
				CE(LONG FORMULA) = 0.40					
				T/S 77000 Y/S 50000 EL 32.50 RA 69.25					
				BRINELL HARDNESS1: 141 HARDNESS2: 141					
		8831 MALE	7524005	1/2 3000 A105N UNAR T					
				C .190 MN .970 P .012 S .022 SI .220					
				NI .040 CU .140 CR .080 MD .012 V .020					
				NB .000					
				CE(LONG FORMULA) = 0.39					
				T/S 75375 Y/S 49125 EL 32.15 RA 64.90					
				BRINELL HARDNESS1: 147 HARDNESS2: 150					



***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records or material furnished us by the production mill, or as obtained by additional laboratory checks.


 by _____
 Chris Childers
 QUALITY PROCESS MANAGER

CMTR: REV 1

QUALITY PROCESS MANAGER

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 www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 08/22/05

CUSTOMER'S Order No.: 9103483-00

Bonney Order No. 016842

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
 5105 75TH STREET

316513

EDMONTON ALBERTA
 EDMONTON ALBERTA, T6E5S5 CANAD

1 3/4 Union

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS.
------	----------	---------	----------------------------	--

SA/A105N

020 1000 3190 7524064 1 3000 A105N UNAR T
 → NUT-KY
 C .190 MN .970 P .027 S .027 SI .260
 NI .180 CU .240 CR .250 MO .041 V .005
 NB .002
 CE(LONG FORMULA) = 0.44
 T/S 83250 Y/S 56250 EL 30.30 RA 61.80
 BRINELL HARDNESS1: 150 HARDNESS2: 150

021 16 2002 7524099 1 1/4 3M A105N UNAR T
 MALE
 C .190 MN .970 P .007 S .024 SI .230
 NI .140 CU .280 CR .100 MO .039 V .037
 CB .001
 CE(LONG FORMULA) = 0.42
 T/S 82500 Y/S 57500 EL 30.00 RA 59.00
 BRINELL HARDNESS1: 159 HARDNESS2: 162

2819 7524099 1 1/4 3M A105N UNAR T
 FEMALE
 C .190 MN 1.170 P .010 S .014 SI .290
 NI .020 CU .080 CR .002 CR .060 MO .012
 V .022 AL .001 NB .002
 CE(LONG FORMULA) = 0.41
 T/S 76375 Y/S 51000 EL 34.25 RA 69.00
 BRINELL HARDNESS1: 144 HARDNESS2: 144

2998 7524099 1 1/4 3M A105N UNAR T
 NUT-EE
 C .190 MN .990 P .019 S .023 SI .260
 NI .150 CU .170 CR .250 MO .033 V .003
 NB .002
 CE(LONG FORMULA) = 0.43
 T/S 78875 Y/S 54875 EL 31.20 RA 67.70
 BRINELL HARDNESS1: 147 HARDNESS2: 147

***** CONTINUED ON NEXT PAGE *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.



[Signature]
 by *[Signature]*

Cris Childers

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



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LOG NO. 221767 PAGE 35

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www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 08/22/05

CUSTOMER'S Order No.: 9103483-00

Bonney Order No. 016842

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
5105 75TH STREET

316513

EDMONTON ALBERTA
EDMONTON ALBERTA, T6E5S5 CANAD

ITEM QUANTITY LOT NO.

GRADE OR SPECIFICATION NO.
CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
3. CERTIFYING ASTM A105-03 / ASME SA105-04 EDITION.
4. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
5. THE MATERIAL SUPPLIED WAS INSPECTED AND MANUFACTURED IN ACCORDANCE WITH EN DIN 10204 3.1. B.
6. THE MATERIAL SUPPLIED IDENTIFIED AS A105QT WAS QUENCHED AND TEMPERED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
7. THE MATERIAL OF THE FITTINGS SUPPLIED IS ASTM A350-LF2 BUT MEETS THE REQUIREMENTS OF ASME SA350-LF2.
8. THE CHARPY V-NOTCH IMPACT TEST WAS PERFORMED AT -50 DEGREES FAHRENHEIT IN ACCORDANCE WITH A350-LF2.
9. CERTIFYING TO ASTM A350 LF2 04A REVISION.
10. THE MATERIAL SUPPLIED WAS NORMALIZED IN ACCORDANCE WITH ASTM A350 HEAT TREATING REQUIREMENTS.

THE MATERIAL SUPPLIED WAS QUENCH AND TEMPERED IN ACCORDANCE WITH ASTM A350 HEAT TREATING REQUIREMENTS.

HEAT #'S 55962, 8833, 36594, 2842, 56019, 2181.

***** END OF CERTIFICATION *****

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.



By

Cris Childers

QUALITY PROCESS MANAGER

CERTIFIED MILL TEST REPORT



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LOG NO. 223310 PAGE 10

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 www.bonneyforge.com

CUSTOMER: WESTLUND INDUSTRIAL SUPPLY

Date 10/19/09

CUSTOMER'S Order No.: 9104902-00

Bonney Order No. 021327

SHIPPED TO: WESTLUND INDUSTRIAL SUPPLY
 5105 75TH STREET

326986

EDMONTON ALBERTA
 EDMONTON ALBERTA, T6E5S5 CANAD

2 3M RR UNION

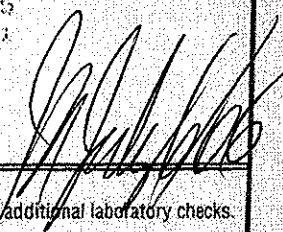
ITEM QUANTITY LOT NO. GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
			SA/A105N	
032	1525	3259	7524084	1 3000 A105N UNAR T
		MALE		C .190 MN 1.100 P .006 S .022 SI 210
				NI .040 CU .140 CR .004 CR .050 MO 010
				V .000 AL .024 NB .010
				CE(LONG FORMULA) = 0.40
				T/S 74250 Y/S 51375 EL 33.75 RA 69.70
				BRINELL HARDNESS1: 135 HARDNESS2: 135
033	783	2927	7524153	2 3M A105N UNAR T
		MALE		C .190 MN 1.020 P .012 S .026 SI 260
				NI .030 CU .170 CR .002 CR .060 MO 009
				V .025 AL .001 NB .000
				CE(LONG FORMULA) = 0.39
				T/S 78000 Y/S 54625 EL 28.15 RA 57.25
				BRINELL HARDNESS1: 144 HARDNESS2: 147
		3158	7524153	2 3M A105N UNAR T
		NUT-JU		C .210 MN 1.010 P .020 S .027 SI 280
				NI .150 CU .230 CR .210 MO .068 V 004
				NB .002
				CE(LONG FORMULA) = 0.45
				T/S 77375 Y/S 52250 EL 32.15 RA 64.90
				BRINELL HARDNESS1: 141 HARDNESS2: 141
		3159	7524153	2 3M A105N UNAR T
		NUT-JT		C .190 MN 1.000 P .015 S .029 SI 250
				NI .080 CU .150 CR 140 MO .016 V 004
				NB .002
				CE(LONG FORMULA) = 0.40
				T/S 77750 Y/S 53125 EL 32.35 RA 64.45
				BRINELL HARDNESS1: 139 HARDNESS2: 141



***** CONTINUED ON NEXT PAGE *****

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by 
 Cris Childers

CMTR: REV 1

QUALITY PROCESS MANAGER

CLIENTE / Customer / Client
CGIF CORPORATION (EDMONTON)
 5407, 53 AVENUE NW
 EDMONTON, AB T6B 3G2
 CANADA

CERTIFICADO DE INSPECCION
 Works Certificate - Certificat d'Usine
 DIN EN 10204 / 3.1
 ISO 10474 / 3.1

FECHA / Date: 20/01/2006
 N°: 104469
 HOJA / Page: 1

PRODUCTO / Product: **FLANGES**
 NORMAS APLICABLES / Norms Aplicables: **ASME B16.5-96**
 REQUISITOS - Norms Aplicables: **ASME B16.5-96**

SU PEDIDO N° / Your Order No.: 4875330-00
 Vols Cde. N°:

DE of. de 29/11/2005



MATERIAL CORRESPONDIENTE / Material Correspondent - Qualité: **ASTMA106N-03**
 MODO DE FUSION / Steel Making - Elaboration de l'acier: **ASME SA106N-03**
 E = Elec. V = Oxígeno básico: **NACE MR-01-75/03**

MARCA DEL FABRICANTE / Mark of factory: **ULMA**
 MARCA DE LA FABRICA / Marque du fabricant: **ULMA**



8° Zubiraga, 3 - Apart. 14
 20560 ONATI (Gipuzkoa) SPAIN
 Tel.: 34 - 943 780552
 Fax: 34 - 943 781808
 E-mail: orja@orjagintulma.es
 49862

DEPARTAMENTO / Department: **QUALITY ASSURANCE**

PARTIDA / Item / Poste	CANTIDAD / Quantity / Quantité	DESCRIPCION / Description / Description	COLADA N° / Heat No. / N° Coulee	RESISTENCIA / T. Strength / Resist Rupt / N/mm2	ALARGAM. / Elongation / Allongem. / Le. %	ESTRACION / Red. Area / Strain %	RESILIANCIA / Impact test / Résistance / Joules	MEIA / Average / Moyenne	DUREZA / Hardness / Dureté
23 7530927	17	THR 2 600LB RF A106N	210A4	508	312	64.00			150
23 7530927	333	THR 2 600LB RF A106N	433A5	495	308	87.00			147

C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Nb %	V %	Cu %	CEQ %	
210A4 433A5	0.200 0.180	0.280 0.240	0.820 0.870	0.009 0.014	0.024 0.007	0.060 0.020	0.110 0.010	0.020 0.003	0.003 0.002	0.001 0.003	0.270 0.160	0.378 0.342

- Las dimensiones y la condición superficial se hallaron satisfactorias
- Dimensions et surface condition were found acceptable
- Les dimensions et état de surface sont satisfaisants
- Los materiales citados cumplen las normas aplicables
- Manufacturing requirements are satisfied
- Les normes applicables sont respectées

EL INSPECTOR / Works Inspector - L'inspecteur



(1) OBSERVACIONES / Remarks: **NORMALIZED AT 900 C AND ALLOWED TO COOL IN STILL AIR**
 Observations



METALFAR

PRODOTTI INDUSTRIALI S.P.A.
 23061 CESANA BRIANZA (LG) ITALY
 Tel. 031/655441 - Fax 031/655149
 MATERIAL TEST DEPARTMENT
 SALA PROVE ED ANALISI MATERIALI

COMPANY
 WITH QUALITY MANAGEMENT
 SYSTEM CERTIFIED BY CNV
 = ISO 9001 : 2000 =

TRADE LIMITED
 CASTLE HOUSE - STANTON ROAD
 NEW BARNET HERTFORD GB

INSPECTION CERTIFICATE EN 10204/B.1

CERTIFICATO DI COLLAUDO

NO: 2898/
 INVOICE / FATTORE: 2111/
 S: 12570
 DEL. NOTE / BOLLA: 4619/
 05/08/2005
 05/08/2005

HEAT CODE COD. COLATA	HEAT COLATA	ITEM POS.	YOUR P.O. NS. ORDINE	OUR REFERENCE NS. ORDINE	QUANTITY QUANTITA'	DESCRIPTION DESCRIZIONE	DIM. ACCORDANCE TO DIM. IN ACCORDO A	VISUAL & DIMENSIONS VISTO E DIMENSIONALE
15763		0011	16999	05402837 00271	150	A105	A105	SATISFACTORY
15763		0011	16999	05402837 00272	150	A105	A105	SATISFACTORY
15763		0011	16999	05402837 00277	150	A105	A105	SATISFACTORY
15763		0011	16999	05402837 00277	150	A105	A105	SATISFACTORY
14325		0006	16999	05002837 00222	44	A105	A105	SATISFACTORY
14304		0007	16999	05402837 00223	125	A105	A105	SATISFACTORY

HEAT CODE COD. COLATA	HEAT COLATA	ITEM POS.	MATERIAL MATERIALE	YIELD POINT Sovrapunto Nivel 2 0.2 %	TENSILE STRENGTH Resistenza Nivel 2	ELONGATION Allungamento % 2	REDUCTION OF AREA Riduzione Area % 2	IMPACT TEST - Residualia (Coup / Cou)	HEAT TREATMENT TRATTAMENTO TERMICO		YIELD POINT Sovrapunto Nivel 2 0.2 %			
									U.M.	U.M.				
15763		0011	ASRN A 105	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN A 105	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN A 105	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN A 105	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
14325		0006	ASRN A 105	310.0	518	32.4	58.0	KV	20	62	56	50	1	0.4
14304		0007	ASRN A 105	330.0	510	32.6	57.0	KV	20	83	81	81	1	0.4

HEAT CODE COD. COLATA	HEAT COLATA	ITEM POS.	TEST SPECIMEN Sovrapunto Nivel 2 0.2 %	YIELD POINT Sovrapunto Nivel 2 0.2 %	TENSILE STRENGTH Resistenza Nivel 2	ELONGATION Allungamento % 2	REDUCTION OF AREA Riduzione Area % 2	IMPACT TEST - Residualia (Coup / Cou)	HEAT TREATMENT TRATTAMENTO TERMICO	YIELD POINT Sovrapunto Nivel 2 0.2 %				
15763		0011	ASRN/ASNE A 105/SA 105 K - 02	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN/ASNE A 105/SA 105 K - 02	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN/ASNE A 105/SA 105 K - 02	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN/ASNE A 105/SA 105 K - 02	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
14325		0006	ASRN/ASNE A 105/SA 105 K - 02	310.0	518	32.4	58.0	KV	20	62	56	50	1	0.4
14304		0007	ASRN/ASNE A 105/SA 105 K - 02	330.0	510	32.6	57.0	KV	20	83	81	81	1	0.4

HEAT CODE COD. COLATA	HEAT COLATA	ITEM POS.	TEST SPECIMEN Sovrapunto Nivel 2 0.2 %	YIELD POINT Sovrapunto Nivel 2 0.2 %	TENSILE STRENGTH Resistenza Nivel 2	ELONGATION Allungamento % 2	REDUCTION OF AREA Riduzione Area % 2	IMPACT TEST - Residualia (Coup / Cou)	HEAT TREATMENT TRATTAMENTO TERMICO	YIELD POINT Sovrapunto Nivel 2 0.2 %				
15763		0011	ASRN/ASNE A 105/SA 105 K - 02	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN/ASNE A 105/SA 105 K - 02	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN/ASNE A 105/SA 105 K - 02	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
15763		0011	ASRN/ASNE A 105/SA 105 K - 02	376.0	532	28.4	59.0	KV	20	82	86	84	1	0.9
14325		0006	ASRN/ASNE A 105/SA 105 K - 02	310.0	518	32.4	58.0	KV	20	62	56	50	1	0.4
14304		0007	ASRN/ASNE A 105/SA 105 K - 02	330.0	510	32.6	57.0	KV	20	83	81	81	1	0.4

NOTE
 MATERIAL IN ACCORDANCE WITH NACE MR-0175/2003

QUALITY CONTROL DEPARTMENT UFFICIO CONTROLLO QUALITA'	INSPECTION AUTHORITY ENTE VERIFICA COLATA	MANUFACTURER'S SYMBOL MARCHIO PRODUTTORE
BRACCHI FLAVIO		MFE

(11) 17002

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS (Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only) As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by Universal Industries Corp., 5014 - 65th Street, Lloydminster, AB T9V 2K2
(Name and address of Manufacturer)

2. Manufactured for Stettler Oil and Gas, Box 652, Stettler, AB. T0C 2L0
(Name and address of Purchaser)

3. Location of installation Stock
(Name and address)

4. Type: Vertical 06-01-54 R4871.231 EDS 6079 Rev. 4 N/A 2006
(Horiz. or vert., tank) (Mfr.'s serial no.) (CRN) (Drawing No) (Nat'l. Bd. No.) (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction and workmanship conform to ASME Rules, Section VIII, Division 1

2004 to 2005 Addenda (Date) N/A Code Case Nos. N/A Special Service per UG-120(d) N/A

6. Shell: SA-106B 1.031 .125 1' 2" 8' S/S
Mat'l. (Spec. No., Grade) Norm. Thk. (in.) Corr Allow (in) Diam I.D. (ft. & in)

7. Seams: N/A N/A 1.0 N/A N/A Butt Spot 70% 1
Long. (Welded, Dbl., Sngl., Lap, Butt) R T (Spot or full) Eff (%) H T Temp (°F) Time (hr) Girth (Welded, Dbl., Sngl., Lap, Butt) R T (Spot or Full) Eff (%) No. of Courses

8. Heads: (a) Mat'l. SA-516-70N (b) Mat'l. SA-516-70N
(Spec. No., Grade) (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	Top	0.9"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	Concave
(b)	Bottom	0.9"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	Concave

9. MAWP 1440 N/A psi at max. temp 100 N/A °F
(internal) (external) (internal) (external)

Min. design metal temp. -20 °F at 1440 psi. Hydro. pneu., or comb. test pressure 2160 psi

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diameter or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Mat'l.	How Attached	Location
See attached U-4 form								

11 Supports: Skirt Yes Lugs N/A Legs N/A Other N/A Attached N/A Welded to head N/A
(Yes or No) (No.) (Describe) (Where and how)

12 Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: N/A
(Name of part, item number, Mfr's name and identifying stamp)

Job No. 5684 PSV installed by others
Capacity 8.9 ft³ Impact tests not req'd as per UG 20(4)(1-5)

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 29238
Expires Sept 15, 2008
Date MAR 21 2006 Co. Name Universal Industries Corp. Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Universal Industries Corp. at Lloydminster, Alberta
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Alberta and employed by ABSA
have inspected the component described in this Manufacturer's Data Report on MAR 28 2006, 20
and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel property damage or a loss of any kind arising from or connected with this inspection.
Date MAR 28 2006 Signed [Signature] Commissions AB 541A1
(Authorized Inspector) (Mat'l Board incl. endorsements), State, Prov and No)

06-01-46 thru 70

U.I.C. - PRESSURE VESSEL / POWER BOILER TRAVEL SHEET

VESSEL TITLE 16" Vertical Separator
 UIC NUMBER 06-01-54
 CANADIAN REGISTRATION NUMBER R 4871.231
 PROVINCIAL "A" NUMBER (N) 549662
 WORK ORDER NUMBER 5684

CONSTRUCTION TO ASME CODE, SECTION VIII Div.1 PARAGRAPH

ITEM	HOLD POINT		REMARKS	Q.C.M.	DATE	AUTN. INSP.	DATE	CUST. INSP.
	AI	Customer						
HOLD POINTS ESTABLISHED BY AI								
SHOP DWG. CHKD.	X				Mar. 21/06			
SHELL MATERIAL					Mar. 16/06			
Mill test checked	X				Mar. 16/06			
Material inspected					Mar. 16/06		MAR 2 8 2006	
HEAD MATERIAL					Mar. 16/06			
Mill test checked	X				Mar. 16/06			
Material inspected					Mar. 16/06		MAR 2 8 2006	
SHELL AND HEAD THK. RECORDED	X				Mar. 21/06			
SHELL AND HEAD DIA. CHKD.					Mar. 21/06		MAR 2 4 2006	MAR 2 8 2006
WELDS & PROCED. REQ'D					Mar. 21/06			
CERT. DWG AND COPIES CHKD.	X				Mar. 21/06			
VESSEL LAYOUTS					Mar. 21/06			
SHELL & HEADS					Mar. 21/06		MAR 2 1 2006	
NOZZLES					Mar. 21/06		MAR 2 1 2006	
ORIENTATIONS					Mar. 21/06		MAR 2 1 2006	
RATINGS	X				Mar. 21/06		MAR 2 1 2006	
BORES & NECKS					Mar. 21/06		MAR 2 1 2006	MAR 1 7 2006
TRAY, BAFFLES, ETC.					Mar. 16/06			
WELDERS STAMPING					Mar. 16/06			
WELDS & REPADS	X				Mar. 21/06		MAR 2 4 2006	
RADIOGRAPHS	X				Mar. 21/06		MAR 2 4 2006	MAR 2 8 2006
OTHER N.D.E.					Mar. 21/06		MAR 2 4 2006	MAR 2 8 2006
NON-CONFORMITY REPORTS								
NAME PLATE & DATA REPORT	XX				Mar. 21/06		MAR 2 1 2006	MAR 2 8 2006
NAMEPLATE INSTALLATION					Mar. 28/06			
FINAL INSPECTION PRIOR TO TESTING					Mar. 28/06			
INTERNAL INSPECTION	XX				Mar. 28/06		MAR 2 4 2006	
P.W.H.T. (TIME/TEMP. CHART)					Mar. 16/06		MAR 1 7 2006	
HYDROSTATIC TESTS	XX				Mar. 16/06			
COMPLETION INSPECTION					Mar. 28/06		MAR 2 8 2006	

NOTE: AUTHORIZED INSPECTOR TO BE PRESENTED TRAVEL SHEET PRIOR TO CONSTRUCTION TO DESIGNATE HOLD POINTS

PRESSURE TEST PROCEDURE & CERTIFICATE

ITEM TESTED Vertical Separator

SERIAL NO. 06-01-54

JOB NO. 5684

CRN R4871.231

DATE March 02/2006

PREPARED BY Mark Wildman

TEST PERFORMED BY *Paul Cunningham*

DIAMETER 16"O.D.

LENGTH 8'S/S

VOLUME 8.9ft³

DESIGN PRESSURE 1440 psi

TEST PRESSURE 2160 psi

HOLDING TIME 20 min.

TEST MEDIUM water

MEDIUM TEMPERATURE ambient

TEST INSTRUCTIONS

Increase pressure M.A.W.P. and hold for 1 minute, increase to 1/2 of the differential pressure between M.A.W.P. and max. test pressure, and hold for 1 minute, increase to 3/4 differential pressure and hold for 1 minute, increase to test pressure. Pressure is to be released to M.A.W.P. at the same rate.

NOTES

1. The system is to be checked by the QC Inspector prior to testing.
2. Provide a vent at the highest point during filling.
3. Test medium must be at specified temperature.
4. Two calibrated gauges must be used with one at the highest point possible.
5. Pressure gauges will be graduated to approximately four times test pressure and not less than one and one half times.
6. The QC Inspector is to be notified after 50% of the holding time has expired.
7. The pressure is not to be released until the test has been accepted by the QC Inspector or unless due to leakage or safety considerations.

Network Hydro

TEST RESULTS

TEST PRESSURE 2200 psi

HOLDING TIME 1/2 hour

RESULTS pass

TEST MEDIUM water

MEDIUM TEMPERATURE ambient

PRESSURIZING UNIT USED diaphragm pump

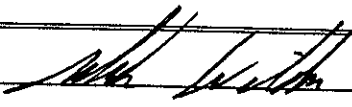
PRIMARY GAUGE QC 95

SECONDARY GAUGE QC 96

THIS CERTIFIES THE ABOVE STATEMENTS ARE CORRECT AND THE EQUIPMENT DESCRIBED WAS FREE FROM LEAKS.

SIGN OFF

WITNESS



DATE

MAR 28 2006

WITNESS

DATE

CUSTOMER REP

DATE

ULTRASONIC THICKNESS CHART

VESSEL SERIAL NO. 06-01-54

JCB NO. 5684

VESSEL TYPE 16" Vertical Separator

DIAMETER 16" O.D.

THICKNESS 1.031" Nom. / .907 min.

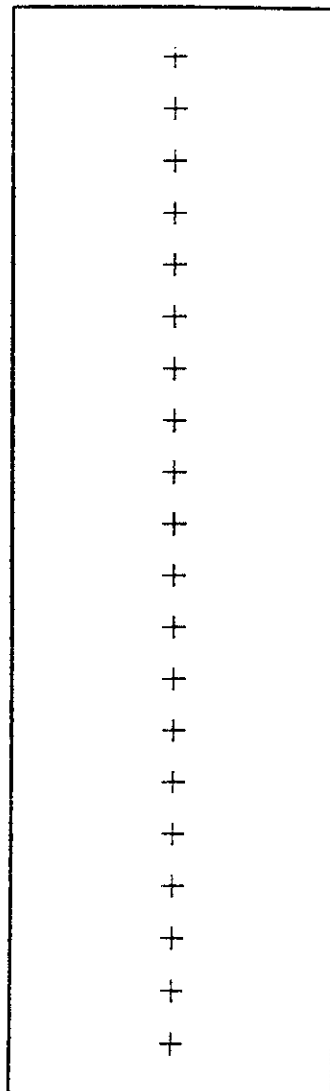
MATERIAL GRADE SA 106 B

HEAT NO'S.

INCREMENTS 1 at each 1/4 mark SHEET SIZE: 8' 5/5

LONG. SEAM NO.

minimum found = .971



0° .971

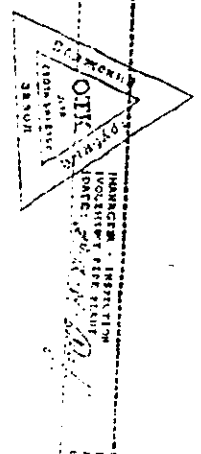
90° 1.030

180° 1.137

270° 1.111

SECTION	NO.	DESCRIPTION	AMOUNT	TOTAL
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5	5
6	6
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100	100

THE CLAIMANT HAS BEEN COVERED BY THIS CERTIFICATE OF WORKMANSHIP, INDEMNITY, FIDELITY AND INSURANCE IN ACCORDANCE WITH APPLICABLE PROVISIONS AND SPECIFICATIONS.



Certificate of Compliance

#2

Customer UNIVERSAL INDUSTRIES CORP. Purchase Order PO-018918 Work Order C62047 Date 2006/01/23 Page 1 of

Item#	Description	Qty	Heat#	Certified Min Thk	Form. Proc.
H62047-1	HEAD(S) - Semi-Elliptical 2:1 - 1.0000" NOM (0.9375" MIN) X 16" OD (Material Spec: SA 516-70 Normalized)	11	75617-032	0.9375"	1
		18	75617-032	0.9600"	1
		5	18339-517456	0.9380"	1

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

34

Supplementary Requirements

The heads listed above comply with the requirements of ASME Code Section I (PG-29 & 81), and Section VIII, Div. 1, including Paragraphs UG-79 and UG-81. Material being supplied conforms to the latest ASME Code Section II, Part A, 2004 Edition, Addenda July 1, 2005.

Steve Zubrycky (QAM)

Supplementary Examination - Items

WO- 5671

PO-018918
 Rev-C62047

ENTERED JAN 25 2006

Jmc

Edmonton Exchanger & Manufacturing Ltd.

5545-89 Street, Edmonton, Alberta T6E 5W9
 Telephone (780) 468-6722 Fax (780) 466-5155

QCC-001
 Rev.7
 Date: April 1, 2006
 Approved By: S.Z

Certificate of Compliance

#3

Customer UNIVERSAL INDUSTRIES CORP. Purchase Order PO-018918 Work Order C62047 Date 2006/01/24 Page 1 of 1

Item#	Description	Qty	Heat#	Certified Min Thk	Form Pro
H62047-4	HEAD(S) - Semi-Elliptical 2:1 - 1.0000" NCM (0.9375" MIN) X 16" OD (Material Spec: SA 516-70 Normalized)	20	75617-041	0.9550"	1
		17	75617-041	0.9550"	1
		5	75615-033	0.9375"	1
		4	75857-032	0.9400"	1
		3	75857-031	0.9400"	1
		1	18339-517456	0.9380"	1

Forming Procedure:

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

Supplementary Requirements

The heads listed above comply with the requirements of ASME Code Section I (PG-29 & 81), and Section VIII, Div. 1, including Paragraphs UG-79 and UG-81. Material being supplied conforms to the latest ASME Code Section II, Part A, 2004 Edition, Addenda July 1, 2005.

Steve Zubryckj (QAM)

Supplementary Examination - Items

WO-5684

PO-018918
 Rev-C62047

ENTERED JAN 25 2006

JMC

RUUKKI

VASTAANOTTOTODISTUS INSPECTION CERTIFICATE ABNAHMEPRÜFZEUGNIS CERTIFICAT DE RECEPTION

EN 10 204-3.1.B (1995)

A 1/22
17072 -01

Tilaja Purchaser Besteller Acheteur

Vastaanottaja Consignee Empfänger Destinatäre

Päivämäärä Date Datum Date

OLBERT METAL SALES LIMITED
ONTARIO L5T 2J8 CANADA

FEDERAL MARINE TERMINALS
HAMILTON, ON L8L 7W9 CANADA

04.11.2005

#2d3

TOIMITUSERA DELIVERY LIEFERUNG LIVRAISON

Tilaus Order
Bestellung Commande
Merkki Mark
Zeichen Marque
Tilauvahvistus Order Confirmation
Auftragsbestätigung Accuse de reception
Lähtö Shipping
Verschiffung Embarquement
Toimitustyyppi Delivery type
Versandart Type de livraison
Todistus Certificate
Zeugnis Certificat

VA-08708

17072
VANCOUVERBORG
TOTAL DELIVERY
3B

Laatuleimaus Quality Stamping
Markenbezeichnung Qualité
SA516GR70MPLTV

Sulatus nro levy nro Cast No. plate No. x x x x x x x x x
Schmelzen Nr. Walztafel Nr. Coulee No. tole No
Valmistajan merkki Mark of the Manufacturer
Zeichen des Herstellers Signe du producteur
Tarkastajan leima Stamp of work's Inspector
Vastaanottajan leima Stamp of Surveyor
Stempel des Sachverständigen Poinçon d'expert
Muut leimaukset Other Stamps
Andere Stempelung Les autres repères poinçonnes



Tuote Product
Erzeugnisform Product
Laatu Quality
Werkstoff Qualität
Laatusehtyys Quality Specification
Qualitätspezifikation Specification de qualité

HEAVY PLATES
ASME SA-/ASTM A 516 GR 70
PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05
ASME SA516-04/ASTM A516-04

Toleranssit Tolerances Toleranzen Tolerances
ASME SA-20 ED. 2004

Tekniset vaatimukset ja/tai viralliset määräykset
Lieferbedingungen und/oder amtliche Vorschriften
Technical terms of Delivery and/or Official Regulations
Stipulations de la commande et/ou prescriptions officielles

Positus Item Poste	Mitat mm Dimensions mm Abmessungen mm Dimensions mm	Merkki Mark Zeichen Marque	Kpl Pcs Stück Quantité	Paino kg Weight kg Gewicht kg Poids kg	Sulatus levy nro Cast plate No. Schmelz Walztafel Nr. Coulee Tole No	Koe nro Test No Pruf No Essai No
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PRODUCED WITH SULFIDE SHAPE CONTROL
NORMALIZED STEEL PLATES



MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
PROPERTIES ACC. TO STEEL GRADE.

001	9.53 X 2451	X	12192 8708 3/8X96.5X480	2	4472	75860 032 032
001	9.53 X 2451	X	12192	2	4472	75860 042 042
001	9.53 X 2451	X	12192	2	4472	75860 059 059
001	9.53 X 2451	X	12192	2	4472	76147 031 031
001	9.53 X 2451	X	12192	2	4472	76147 032 032
001	9.53 X 2451	X	12192	2	4472	76147 041 041
001	9.53 X 2451	X	12192	2	4472	76147 042 042

MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
PROPERTIES ACC. TO STEEL GRADE.

003	12.70 X 2451	X	12192 8708 1/2X96.5X480	2	5958	76145 021 021
003	12.70 X 2451	X	12192	2	5958	76145 022 022
003	12.70 X 2451	X	12192	2	5958	76145 023 023
003	12.70 X 2451	X	12192	2	5958	76145 031 031
003	12.70 X 2451	X	12192	2	5958	76145 032 032
003	12.70 X 2451	X	12192	2	5958	76145 033 033

MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
PROPERTIES ACC. TO STEEL GRADE.

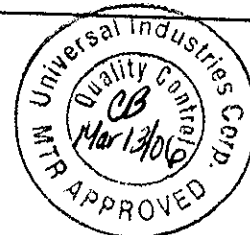
004	12.70 X 3060	X	12192 8708 1/2X120.5X480	2	7440	75825 012 012
004	12.70 X 3060	X	12192	2	7440	75860 031 031
004	12.70 X 3060	X	12192	2	7440	75860 041 041
004	12.70 X 3060	X	12192	2	7440	75860 051 051

07.11.2005

RUUKKI PRODUCTION
Raabe Steel Works

Todistus ja tarkastus
Testing and Inspection
Prüfung und Kontrolle

Tämän todistuksen, että toimitus on tilauhvahvistuksen mukainen.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht.
Nous certifions que la livraison est conforme aux stipulations de l'acceptation de la commande.



M. Valkama
MINNA VALKAMA
Valmistuksen tarkastaja Authorized Inspector
Werkstoffprüfer Inspecteur autorisé

RUUKKI PRODUCTION
Yhtiön nimi Company Name

Osoite Address
PL 93, P.O. Box 93
FN-92101 RAAHE, FINLAND
Ketupaikka Registered Office

Puhelin Telephone
020 5911
+358 20 5911

Telekopio Telefax
020 592 2736
+358 20 592 2736

Y-tunnus Business ID
0113276-9

EN 10 204-3.1.B (1995)

Tilaja Purchaser Besteller Acheteur

Vastaanottaja Consignee Empfänger Destinataire

Päivämäärä Date Datum Date

CLBERT METAL SALES LIMITED
 ONTARIO L5T 2J8 CANADA

FEDERAL MARINE TERMINALS
 HAMILTON, ON L8L 7W9 CANADA

04.11.2005

TOIMITUSERA DELIVERY LIEFERUNG LIVRAISON

Tilaus Order
 Bestellung Commande
 Merkki Mark
 Zeichen Marque
 Tilauksen vahvistus Order Confirmation
 Auftragsbestätigung Accusé de réception
 Laitaus Shipping
 Verschiffung Embarquement
 Toimitustyyppi Delivery type
 Versandart Type de livraison
 Todistus Certificate
 Zeugnis Certificat

VA-08708

17072

VANCOUVERBORG

TOTAL DELIVERY

3B

Laatuleimäus Quality Stamping
 Markenbezeichnung Qualite
 SA516GR70MTLTV

Sulatus nro levy nro Cast No. plate No. XXXXX XX XX
 Schmelzen Nr. Walztafel Nr. Coulee No. tole No
 Valmistajan merkki Mark of the Manufacturer
 Zeichen des Herstellers Signe du producteur
 Tarkastajan leima Stamp of work's Inspector
 Stempel des Werkstschverständigen Poinçon de controle
 Vastaanottajan leima Stamp of Surveyor
 Stempel der Sachverständigen Poinçon d'expert
 Muut leimaukset Other Stamps
 Andere Stempelung Les autres repères poinçonnes



Tuote Product
 Erzeugnisform Produkt
 Laatu Quality
 Werkstoff Qualite
 Laatuvaatimus Quality Specification
 Qualitätspezifikation Specification de qualite

HEAVY PLATES

ASME SA- /ASTM A 516 GR 70

PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05

Toleranssit Tolerances Toleranzen Tolerances
 ASME SA-20 ED. 2004

ASME SA516-04/ASTM A516-04

Tekniset vaatimukset ja/tai viralliset määräykset
 Lieferbedingungen und/oder amtliche Vorschriften
 Technical terms of Delivery and/or Official Regulations
 Supulations de la commande et/ou prescriptions officielles

Posite Item Poste	Mitat mm Dimensions mm Abmessungen mm Dimensions mm	Merkki Mark Zeichen Marque	Kpl Pcs Stuck Quantite	Paino kg Weight kg Gewicht kg Poids kg	Sulatus levy nro Cast plate No. Schmelz Walztafel Nr. Coulee Tole No	Koe nro Test No Prüf No Essai No
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PRODUCED WITH SULFIDE SHAPE CONTROL
 NORMALIZED STEEL PLATES

MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

004	12.70 X 3060	X	12192	8708	1/2X120.5X480	2	7440	76142	011	011
004	12.70 X 3060	X	12192			2	7440	76142	012	012
004	12.70 X 3060	X	12192			2	7440	76142	021	021
004	12.70 X 3060	X	12192			1	3720	76142	022	022
004	12.70 X 3060	X	12192			2	7440	76142	023	023
004	12.70 X 3060	X	12192			2	7440	76142	031	031
004	12.70 X 3060	X	12192			2	7440	76142	032	032
004	12.70 X 3060	X	12192			2	7440	76142	033	033
004	12.70 X 3060	X	12192			2	7440	76142	041	041
004	12.70 X 3060	X	12192			2	7440	76142	042	042
004	12.70 X 3060	X	12192			2	7440	76142	043	043
004	12.70 X 3060	X	12192			2	7440	76143	051	051
004	12.70 X 3060	X	12192			2	7440	76143	052	052
004	12.70 X 3060	X	12192			2	7440	76143	053	053
						1	3720	76147	043	043

MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

005	15.88 X 2451	X	12192	8708	5/8X96.5X480	2	7450	76145	011	011
005	15.88 X 2451	X	12192			2	7450	76145	012	012
005	15.88 X 2451	X	12192			2	7450	76147	012	012
005	15.88 X 2451	X	12192			2	7450	76147	021	021
005	15.88 X 2451	X	12192			2	7450	76147	022	022

07.11.2005

RUUKKI PRODUCTION
 Raabe Steel Works

Tarkastus ja tarkastus
 Prüfung und Kontrolle

Testing and Inspection
 Essais et Contrôle

Tilien todistamme, että toimitus on
 tilauksen mukainen.
 We hereby certify that the material described above has been
 tested and complies with the terms of the order contract.
 Es wird bestätigt, dass die Lieferung geprüft wurde und
 den Vereinbarungen bei der Bestellung entspricht.
 Nous certifions que la livraison est conforme aux
 stipulations de l'acceptation de la commande.

M. Valkama

MINNA VALKAMA

Vahvistettu tarkastaja
 Werkstschverständiger

Authorized Inspector
 Inspecteur autorisé

RUUKKI PRODUCTION

Osoite Address
 PL 93, P.O. Box 93
 FIN-92101 RAAHE, FINLAND
 Kotipaikka Registered Office

Puhelin Telephone
 020 5911
 +358 20 5911

Telekopio Telefax
 020 592 2736
 +358 20 592 2736

Y-tunnus Business ID
 0115275-9

Yhtiön nimi Company Name

RUUKKI

VASTAANOTTOTODISTUS INSPECTION CERTIFICATE ABNAHMEPRÜFZEUGNIS CERTIFICAT DE RECEPTION

EN 10 204-3.1.B (1995)

A 3/22
17072 -01

Tilaja Purchaser Besteller Acheteur

Vastaanottaja Consignee Empfänger Destinataire

Päivämäärä Date Datum Date

OLBERT METAL SALES LIMITED
ONTARIO L5T 2J8 CANADA

FEDERAL MARINE TERMINALS
HAMILTON, ON L8L 7W9 CANADA

04.11.2005

TOIMITUSERA DELIVERY LIEFERUNG LIVRAISON

Tilaus Order
Bestellung Commande
Merkki Mark
Zeichen Marque
Tilausvahvistus Order Confirmation
Auftragsbestätigung Accuse de reception
Lähtö Shipping
Verschiffung Embarquement
Toimitustyyppi Delivery type
Versandart Type de livraison
Todistus Certificate
Zeugnis Certificat

VA-08708

17072
VANCOUVERBORG
TOTAL DELIVERY
3B

Laatuleimaus Quality Stamping
Markenbezeichnung Qualité
SAS16GR70MTLTV

Sulatus nro levy nro Cast No. plate No. x x x x x x x x x
Schmelzen Nr. Walztafel Nr. Coulee No. tole No
Valmistajan merkki Mark of the Manufacturer
Tarkastajan leima Stamp of work's Inspector
Stempel des Werksachverständigen Poinçon de controle
Vastaanottajan leima Stamp of Surveyor
Stempel des Sachverständigen Poinçon d'expert
Muut leimaukset Other Stamps
Andere Stempelung Les autres repères poinçonnes



Tuote Product
Erzeugnisform Produit
Lähtö Quality
Werkstoff Qualität
Lähtöspecifikaatio Quality Specification
Qualitätsspezifikation Specification de qualité

HEAVY PLATES
ASME SA-/ASTM A 516 GR 70
PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05
ASME SA516-04/ASTM A516-04

Toleranssit Tolerances Toleranzen Tolerances
ASME SA-20 ED. 2004

Tekniset vaatimukset ja tai viralliset määräykset
Lieferbedingungen und/oder amtliche Vorschriften
Technical terms of Delivery and/or Official Regulations
Stipulations de la commande et/ou prescriptions officielles

Positie Item Poste	Mitat mm Dimensions mm Abmessungen mm	Merkki Mark Zeichen	Kpl Pcs Stück	Paino kg Weight kg Poids kg	Sulatus levy nro Cast plate No. Schmelz Walztafel Nr. Coulee Tole No	Koe nro Test No Prüf No Essai No
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PRODUCED WITH SULFIDE SHAPE CONTROL
NORMALIZED STEEL PLATES

MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
PROPERTIES ACC. TO STEEL GRADE.

006	15.88 X 3060	X	12192 8708 5/8X120.5X480	2	9304	75632 011 011
006	15.88 X 3060	X	12192	2	9304	75632 021 021
006	15.88 X 3060	X	12192	2	9304	75632 022 022
006	15.88 X 3060	X	12192	2	9304	75632 031 031
006	15.88 X 3060	X	12192	2	9304	75632 032 032
006	15.88 X 3060	X	12192	2	9304	75632 041 041
006	15.88 X 3060	X	12192	2	9304	75632 051 051
006	15.88 X 3060	X	12192	2	9304	75632 052 052
006	15.88 X 3060	X	12192	2	9304	75634 023 023
006	15.88 X 3060	X	12192	2	9304	75634 031 031
006	15.88 X 3060	X	12192	2	9304	75634 032 032
006	15.88 X 3060	X	12192	2	9304	75634 041 041
006	15.88 X 3060	X	12192	2	9304	75634 042 042
006	15.88 X 3060	X	12192	2	9304	75638 014 014
006	15.88 X 3060	X	12192	1	4652	75638 033 033
006	15.88 X 3060	X	12192	1	4652	76147 051 051

MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
PROPERTIES ACC. TO STEEL GRADE.

007	19.05 X 2451	X	12192 8708 3/4X96.5X480	2	8938	75634 014 014
007	19.05 X 2451	X	12192	2	8938	75634 021 021
007	19.05 X 2451	X	12192	2	8938	75634 022 022

07.11.2005

RUUKKI PRODUCTION
Raabe Steel Works

Testaus ja tarkastus Testing and Inspection
Prüfung und Kontrolle Essais et Contrôle

Täten todistamme, että toimitus on tilausvahvistuksen mukainen.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht.
Nous certifions que la livraison est conforme aux stipulations de l'acceptation de la commande.

H. Valkama

MINNA VALKAMA

Valtuutettu tarkastaja Authorized Inspector
Werksachverständiger Inspector autorisé

RUUKKI PRODUCTION

Osoite Address
P.O. Box 93
FIN-92101 RAAHE, FINLAND
Kotipaikka Registered Office

Puhelin Telephone
020 5911
+358 20 5911

Telekopio Telefax
020 592 2736
+358 20 592 2736

Y-tunnus Business ID
0113276-9

Yhtiön nimi Company Name

Tilaja Purchaser Besteller Acheteur
 OLBERT METAL SALES LIMITED
 ONTARIO L5T 2J8 CANADA

Vastaanottaja Consignee Empfänger Destinataire
 FEDERAL MARINE TERMINALS
 HAMILTON, ON L8L 7W9 CANADA

Paivamaara Date Datum Date
 04.11.2005

TOIMITUSERÄ DELIVERY LIEFERUNG LIVRAISON

Tilaus Order
 Bestellung Commande
 Merkki Mark
 Zeichen Marque
 Tilausvahvistus Order Confirmation
 Auftragsbestätigung Accuse de reception
 Lähtö Shipping
 Verschiffung Embarquement
 Toimitustyyppi Delivery type
 Versandart Type de livraison
 Todistus Certificate
 Zeugnis Certificat

VA-08708
 17072
 VANCOUVERBORG
 TOTAL DELIVERY
 3B

Laatumerkaus Quality Stamping
 Markenbezeichnung Qualite
 SA516GR70MPLTV

Sulatus nro levy nro Cast No. plate No. x x x x x
 Schmelzen Nr. Walztafel Nr. Coulee No. tôle No. x x x x
 Valmistajan merkki Mark of the Manufacturer
 Zeichen des Herstellers Signe du producteur
 Tarkastajan leima Stamp of work's Inspector
 Stempel des Werksachverständigen Poinçon de controle
 Vastaanottajan leima Stamp of Surveyor
 Stempel des Sachverständigen Poinçon d'expert
 Muut leimaukset Other Stamps
 Andere Stempelung Les autres repères poinçonnés



Tuote Product
 Erzeugnisform Produit
 Laatu Quality
 Werkstoff Qualite
 Laatuselvitys Quality Specification
 Qualitätsspezifikation Specification de qualite

HEAVY PLATES
 ASME SA-/ASTM A 516 GR 70
 ASME SA516-04/ASTM A516-04
 PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05

Toleranssit Tolerances Toleranzen Toleranzen
 ASME SA-20 ED. 2004

Tekniset vaatimukset ja/tai viralliset määräykset
 Lieferbedingungen und/oder amtliche Vorschriften
 Technical terms of Delivery and/or Official Regulations
 Stipulations de la commande et/ou prescriptions officielles

Positie Item Post	Mitat mm Dimensions mm Abmessungen mm Dimensions mm	Merkki Mark Zeichen Marque	Kpl Pcs Stück Quantite	Paino kg Weight kg Gewicht kg Poids kg	Sulatus levy nro Cast plate No. Schmelz Walztafel Nr. Coulee Tole No	Koe nro Test No Prüf No Essai No
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PRODUCED WITH SULFIDE SHAPE CONTROL
 NORMALIZED STEEL PLATES

MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

008	19.05 X 3060	X	12192 8708 3/4X120.5X480	1	5580	72894 033 033
008	19.05 X 3060	X	12192	1	5580	75632 012 012
008	19.05 X 3060	X	12192	1	5580	75632 042 042
008	19.05 X 3060	X	12192	1	5580	75634 011 011
008	19.05 X 3060	X	12192	1	5580	75634 012 012
008	19.05 X 3060	X	12192	1	5580	75634 013 013
008	19.05 X 3060	X	12192	1	5580	75636 011 011
008	19.05 X 3060	X	12192	1	5580	75636 012 012
008	19.05 X 3060	X	12192	1	5580	75636 013 013
008	19.05 X 3060	X	12192	1	5580	75636 014 014
008	19.05 X 3060	X	12192	1	5580	75636 022 022
008	19.05 X 3060	X	12192	1	5580	75636 023 023
008	19.05 X 3060	X	12192	1	5580	75636 024 024
008	19.05 X 3060	X	12192	1	5580	75636 031 031
008	19.05 X 3060	X	12192	1	5580	75636 032 032
008	19.05 X 3060	X	12192	1	5580	75636 033 033
008	19.05 X 3060	X	12192	1	5580	75636 034 034
008	19.05 X 3060	X	12192	1	5580	75636 041 041
008	19.05 X 3060	X	12192	1	5580	75636 042 042
008	19.05 X 3060	X	12192	1	5580	75636 043 043
008	19.05 X 3060	X	12192	1	5580	75636 044 044
008	19.05 X 3060	X	12192	1	5580	75638 011 011
008	19.05 X 3060	X	12192	1	5580	75638 012 012

07.11.2005

RUUKKI PRODUCTION
 Raabe Steel Works

Testaus ja tarkastus
 Prüfung und Kontrolle
 Testing and Inspection
 Essais et Contrôle

Tämä todistamme, että toimitus on
 tilausvahvistuksen mukainen.
 We hereby certify that the material described above has been
 tested and complies with the terms of the order contract.
 Es wird bestätigt, dass die Lieferung geprüft wurde und
 den Vereinbarungen bei der Bestellannahme entspricht.
 Nous certifions que la livraison est conforme aux
 stipulations de l'acception de la commande.

M. Valkama

MINNA VALKAMA
 Vastuullinen tarkastaja
 Werksachverständiger
 Authorized Inspector
 Inspecteur autorisé

RUUKKI PRODUCTION
 Yhtiön nimi Company Name

Osioite Address
 PL 93, P.O. Box 93
 FIN-92101 RAAHE, FINLAND
 Kotipaikka Registered Office

Puhelin Telephone
 020 5911
 +358 20 5911

Telekopio Telefax
 020 592 2736
 +358 20 592 2736

Y-tunnus Business ID
 0113276-9

Tilaja Purchaser Besteller Acheteur

Vastaanottaja Consignee Empfänger Destinataire

Päivämäärä Date Datum Date

OLBERT METAL SALES LIMITED
 ONTARIO L5T 2J8 CANADA

FEDERAL MARINE TERMINALS
 HAMILTON, ON L8L 7W9 CANADA

04.11.2005

TOIMITUSERA DELIVERY LIEFERUNG LIVRAISON

Tilaus Order
 Bertellung Commande
 Merkki Mark
 Zeichen Marque
 Tilausvahvistus Order Confirmation
 Auftragsbestätigung Accusé de réception
 Laitaus Shipping
 Verschiffung Embarquement
 Toimitustyyppi Delivery type
 Versandart Type de livraison
 Todistus Certificate
 Zeugnis Certificat

VA-08708

17072
 VANCOUVERBORG
 TOTAL DELIVERY
 3B

Laatuleimäus Quality Stamping
 Markenbezeichnung Qualite
 SAS16GR70MTLTV

Sulatus nro levy nro Cast No. plate No. x x x x x
 Schmelzen Nr. Walztafel Nr. Coulee No. tole No. x x x x
 Valmistajan merkki Mark of the Manufacturer
 Zeichen des Herstellers Signe du producteur
 Tarkastajan leima Stamp of work's Inspector
 Stempel des Werksachverständigen Poinçon de controle
 Vastaanottajan leima Stamp of Surveyor
 Stempel des Sachverständigen Poinçon d'expert
 Muut leimaukset Other Stamps
 Andere Stempelung Les autres repères poinçonnées



Tuote Product
 Erzeugnisform Produkt
 Laatu Quality
 Werkstoff Quaité
 Laatuselvitys Quality Specification
 Qualitätsspezifikation Specification de qualite

HEAVY PLATES
 ASME SA-/ASTM A 516 GR 70
 PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05
 ASME SA516-04/ASTM A516-04

Toleranssit Tolerances Toleranzen Toleranzen
 ASME SA-20 ED. 2004

Tekniset vaatimukset ja/tai viralliset määräykset
 Lieferbedingungen und/oder amtliche Vorschriften
 Technical terms of Delivery and/or Official Regulations
 Stipulations de la commande et/ou prescriptions officielles

Positiio Item Pos. Poste	Mitat mm Dimensions mm Abmessungen mm Dimensionen mm	Merkki Mark Zeichen Marque	Kpl Pcs Stück Quantité	Paino kg Weight kg Gewicht kg Poids kg	Sulatus levy nro Cast plate No. Schmelz Walztafel Nr. Coulee Tole No	Koe nro Test No Prüf No Essai No
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PRODUCED WITH SULFIDE SHAPE CONTROL
 NORMALIZED STEEL PLATES

MAX: CEQ 0.43%, C 0.21%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

008 19.05 X 3060 X 12192 8708 3/4X120.5X480 1 5580 75638 013 013

MAX: CEQ 0.43%, C 0.22%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

009 22.23 X 2451 X 12192 8708 7/8X96.5X480 1 5215 75860 011 011
 009 22.23 X 2451 X 12192 1 5215 75860 012 012
 009 22.23 X 2451 X 12192 1 5215 75860 013 013
 009 22.23 X 2451 X 12192 1 5215 75860 014 014
 009 22.23 X 2451 X 12192 1 5215 75860 021 021
 009 22.23 X 2451 X 12192 1 5215 75860 022 022

MAX: CEQ 0.43%, C 0.22%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

010 22.23 X 3060 X 12192 8708 7/8X120.5X480 1 6512 75827 041 041
 010 22.23 X 3060 X 12192 1 6512 75827 421 421
 010 22.23 X 3060 X 12192 1 6512 75856 012 012
 010 22.23 X 3060 X 12192 1 6512 75856 020 020
 010 22.23 X 3060 X 12192 1 6512 75856 022 022
 010 22.23 X 3060 X 12192 1 6512 75856 031 031
 010 22.23 X 3060 X 12192 1 6512 75856 032 032
 010 22.23 X 3060 X 12192 1 6512 75856 033 033
 010 22.23 X 3060 X 12192 1 6512 75856 041 041
 010 22.23 X 3060 X 12192 1 6512 75856 042 042

07.11.2005

RUUKKI PRODUCTION
Raahe Steel Works

Testaus ja tarkastus
 Prüfung und Kontrolle
 Testing and Inspection
 Essais et Contrôle

Toten todistamme, että toimitus on
 tilausvahvistuksen mukainen.
 We hereby certify that the material described above has been
 tested and complies with the terms of the order contract.
 Es wird bestätigt, dass die Lieferung geprüft wurde und
 den Vereinbarungen bei der Bestellannahme entspricht.
 Nous certifions que la livraison est conforme aux
 stipulations de l'acceptation de la commande.

H. Valkama

MINNA VALKAMA

Valtuutettu tarkastaja - Authorized Inspector
 Werksachverständiger - Inspector autorisé

RUUKKI PRODUCTION

Osoite Address
 PL 93, P.O. Box 93
 FIN-92101 RAAHE, FINLAND
 Kotipaikka Registered Office

Puhelin Telephone
 020 5911
 +358 20 5911

Telekopio Telefax
 +20 592 2736
 +358 20 592 2736

Y-tunnus Business ID
 0113276-9

Yhtiön nimi Company Name

Tilaja Purchaser Besteller Acheteur: **OLBERT METAL SALES LIMITED**
 Vastaanottaja Consignee Empfänger Destinataire: **FEDERAL MARINE TERMINALS**
 Päivämäärä Date Datum Date: **04.11.2005**
ONTARIO L5T 2S8 CANADA **HAMILTON, ON L8L 7W9 CANADA**

TOIMITUSERA DELIVERY LIEFERUNG LIVRAISON

Tilaus Order
 Bestellung Commande
 Merkki Mark
 Zeichen Marque
 Tilausvahvistus Order Confirmation
 Auftragsbestätigung Accuse de reception
 Laivaus Shipping
 Verschiffung Embarquement
 Toimitustyyppi Delivery type
 Versandart Type de livraison
 Todistus Certificate
 Zeugnis Certificat

VA-08708
 17072
 VANCOUVERBORG
 TOTAL DELIVERY
 3B

Laatuleimaus Quality Stamping
 Markenbezeichnung Qualite
 SA516GR70MTLTV

Sulatus nro Levy ero Cast No. plate No. X X X X X X X X X
 Schmelzen Nr. Walztafel Nr. Coulee No. tole No
 Valmistajan merkki Mark of the Manufacturer
 Zeichen des Herstellers Signe du producteur
 Tarkastajan leima Stamp of work's Inspector
 Stempel des Werkssachverständigen Poinçon de controle
 Vastaanottajan leima Stamp of Surveyor
 Stempel des Sachverständigen Poinçon d'expert
 Muut leimaukset Other Stamps
 Andere Stempelung Les autres reperes poinçonnes



Tuote Product
 Erzeugnisform Produit
 Laatu Quality
 Werkstoff Qualite
 Laatuselvitys Quality Specification
 Qualitätspezifikation Specification de qualite

HEAVY PLATES
 ASME SA-/ASTM A 516 GR 70
 ASME SA516-04/ASTM A516-04
 PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05

Toleranssit Tolerances Toleranzen Toleranzen
 ASME SA-20 ED. 2004

Tekniset vaatimukset ja/tai viralliset määräykset
 Lieferbedingungen und/oder amtliche Vorschriften
 Technical terms of Delivery and/or Official Regulations
 Stipulations de la commande et/ou prescriptions officielles

Positie Item Poste	Mitat mm Dimensions mm Abmessungen mm Dimensions mm	Merkki Mark Zeichen Marque	Kpl Pcs Stück Quantite	Paino kg Weight kg Poids kg	Sulatus levy nro Cast plate No. Schmelz Walztafel Nr. Coulee Tole No	Koe nro Test No Prüf No Essai No
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PRODUCED WITH SULFIDE SHAPE CONTROL
 NORMALIZED STEEL PLATES

MAX: CEQ 0.43%, C 0.22%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

010	22.23 X 3060	X	12192 8708 7/8X120.5X480	1	6512	75856 043 043
010	22.23 X 3060	X	12192	1	6512	75856 051 051
010	22.23 X 3060	X	12192	1	6512	75856 052 052
010	22.23 X 3060	X	12192	1	6512	75857 043 043
010	22.23 X 3060	X	12192	1	6512	75857 051 051
010	22.23 X 3060	X	12192	1	6512	75857 052 052
010	22.23 X 3060	X	12192	1	6512	75857 053 053
010	22.23 X 3060	X	12192	1	6512	75860 024 024

MAX: CEQ 0.43%, C 0.22%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

011	25.40 X 2451	X	12192 8708 1X96.5X480	1	5959	75857 011 011
011	25.40 X 2451	X	12192	1	5959	75857 012 012
011	25.40 X 2451	X	12192	1	5959	75857 013 013
011	25.40 X 2451	X	12192	1	5959	75857 021 021
011	25.40 X 2451	X	12192	1	5959	75857 022 022
011	25.40 X 2451	X	12192	1	5959	75857 023 023
011	25.40 X 2451	X	12192	1	5959	75857 031 031
011	25.40 X 2451	X	12192	1	5959	75857 032 032
011	25.40 X 2451	X	12192	1	5959	75857 033 033
011	25.40 X 2451	X	12192	1	5959	75857 041 041
011	25.40 X 2451	X	12192	1	5959	75857 042 042
011	25.40 X 2451	X	12192	1	5959	75860 023 023

07.11.2005

RUUKKI PRODUCTION
Raabe Steel Works

Todistus ja tarkastus Testing and Inspection
 Prüfung und Kontrolle Basis et Contrôle

Tämän todistuksen, että toimitus on tilausvahvistuksen mukainen.
 We hereby certify that the material described above has been tested and complies with the terms of the order contract.
 Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht.
 Nous certifions que la livraison est conforme aux stipulations de l'acceptation de la commande.

M. Valkama

MINNA VALKAMA
 Valmistuksen tarkastaja Authorized Inspector
 Werkssachverständiger Inspector autorisé

RUUKKI PRODUCTION
 Yhtiön nimi Company Name

Osioite Address
 PL93, P.O. Box 93
 FIN-92101 RAAHE, FINLAND
 Kotipaikka Registered Office

Puhelin Telephone
 020 5911
 +358 20 5911

Telekopio Telefax
 020 592 2736
 +358 20 592 2736

Y-tunnus Business ID
 0115276-9

Tilaja Purchaser Besteller Acheteur
 OLBERT METAL SALES LIMITED
 ONTARIO LST 2J8 CANADA

Vastaanottaja Consignee Empfänger Destinataire
 FEDERAL MARINE TERMINALS
 HAMILTON, ON L8L 7W9 CANADA

Päivämäärä Date Datum Date
 04.11.2005

TOIMITUSERA DELIVERY LIEFERUNG LIVRAISON

Tilaus Order
 Bestellung Commande
 Merkki Mark
 Zeichen Marque
 Tilausvahvistus Order Confirmation
 Auftragsbestätigung Accuse de reception
 Luvaus Shipping
 Verschiffung Embarkement
 Toimitustyyppi Delivery type
 Versandanti Type de livraison
 Todistus Certificate
 Zeugnis Certificat

VA-08708

17072

VANCOUVERBORG

TOTAL DELIVERY

3B

Laatuleimaus Quality Stamping
 Markenbezeichnung Qualite
 SAS16GR70MTLTV

Sulatus nro levy nro Cast No. plate No. x x x x x x x x x x
 Schmelzen Nr. Walztafel Nr. Coulee No. tôle No.
 Valmistajan merkki Mark of the Manufacturer
 Zeichen des Herstellers Signe du producteur
 Tarkastajan leima Stamp of work's Inspector
 Stempel des Werkstoffverständigen Poinçon de controle
 Vastaanottajan leima Stamp of Surveyor
 Stempel des Sachverständigen Poinçon d'expert
 Muut leimaukset Other Stamps
 Andere Stempelung Les autres repères poinçonnes

Tuote Product
 Erzeugnisform Produit
 Laatu Quality
 Werkstoff Qualite
 Laatuselvitys Quality Specification
 Qualitätspezifikation Specification de qualite

HEAVY PLATES

ASME SA-/ASTM A 516 GR 70

ASME SA516-04/ASTM A516-04

PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05

Toleranssit Tolerances Toleranzen Toleranzen

ASME SA-20 ED. 2004

Tekniset vaatimukset ja tai viralliset määräykset
 Lieferbedingungen und/oder amtliche Vorschriften

Technical terms of Delivery and/or Official Regulations
 Supulations de la commande et/ou prescriptions officielles

Position Item Pos. Poste	Mitat mm Dimensions mm Abmessungen mm Dimensions mm	Merkki Mark Zeichen Marque	Kpl Pcs Stück Quantite	Paino kg Weight kg Gewicht kg Poids kg	Sulatus levy nro Cast plate No. Schmelz Walztafel Nr. Coulée Tôle No	Koe nro Test No Prüf No Essai No
-----------------------------------	--	-------------------------------------	---------------------------------	---	---	---

PRODUCED WITH SULFIDE SHAPE CONTROL
 NORMALIZED STEEL PLATES

MAX: CEQ 0.43%, C 0.22%, S 0.003%, P 0.02%; VACUUM DEGASSED,
 TESTING AS DELIV. COND. AND RENORMALIZED COND.; MECHANICAL
 PROPERTIES ACC. TO STEEL GRADE.

012	25.40 X 3060	X	12192 8708 1X120.5X480	1	7440	75615 011 011
012	25.40 X 3060	X	12192	1	7440	75615 014 014
012	25.40 X 3060	X	12192	1	7440	75615 021 021
012	25.40 X 3060	X	12192	1	7440	75615 022 022
012	25.40 X 3060	X	12192	1	7440	75615 023 023
012	25.40 X 3060	X	12192	1	7440	75615 031 031
012	25.40 X 3060	X	12192	1	7440	75615 032 032
012	25.40 X 3060	X	12192	1	7440	75615 033 033
012	25.40 X 3060	X	12192	1	7440	75617 011 011
012	25.40 X 3060	X	12192	1	7440	75617 012 012
012	25.40 X 3060	X	12192	1	7440	75617 013 013
012	25.40 X 3060	X	12192	1	7440	75617 021 021
012	25.40 X 3060	X	12192	1	7440	75617 022 022
012	25.40 X 3060	X	12192	1	7440	75617 023 023
012	25.40 X 3060	X	12192	1	7440	75617 031 031
012	25.40 X 3060	X	12192	1	7440	75617 032 032
012	25.40 X 3060	X	12192	1	7440	75617 033 033
012	25.40 X 3060	X	12192	1	7440	75617 041 041
012	25.40 X 3060	X	12192	1	7440	75617 042 042
012	25.40 X 3060	X	12192	1	7440	75617 043 043

07.11.2005

RUUKKI PRODUCTION
Raahe Steel Works
 Testaus ja tarkastus
 Prüfung und Kontrolle

Täten todistamme, että toimitus on
 täsmävastuksen mukainen.
 We hereby certify that the material described above has been
 tested and complies with the terms of the order contract.
 Es wird bestätigt, dass die Lieferung geprüft wurde und
 den Vereinbarungen bei der Bestellannahme entspricht.
 Nous certifions que la livraison est conforme aux
 stipulations de l'acceptation de la commande.

M. Valkama
MINNA VALKAMA
 Valvonta- ja tarkastaja
 Werkstoffverständiger

RUUKKI PRODUCTION
 Yhtiön nimi Company Name
 FIN-20101 RAAHE, FINLAND
 Kotipaikka Registered Office


Osoite Address
 PL 93, P.O. Box 93
 FIN-20101 RAAHE, FINLAND

Puhelin Telephone
 020 5911
 +358 20 591 1

Telekopio Telefax
 020 592 2736
 +358 20 592 2736

Y-tunnus Business ID
 0113275-9

Tilaja Purchaser Bertsteller Acheteur: **OLBERT METAL SALES LIMITED**
 Vastaanottaja Consignee Empfänger Destataire: **FEDERAL MARINE TERMINALS**
 Päivämäärä Date Datum Date: **04.11.2005**
 Osoite Address: **ONTARIO L5T 2J8 CANADA**
 Paikannimi Location: **HAMILTON, ON L8L 7W9 CANADA**

TOIMITUSERA DELIVERY LIEFERUNG LIVRAISON: **VA-08708**
 Laatuleimas Quality Stamping: **SA516GR7CMTLTV**
 Tilaus Order: **17072**
 Schmelzen Nr. Walztafel Nr. Coulee No. tole No: **XXXXX XX XX**
 Merkki Mark: **VANCOUVERBORG**
 Zeichen Marque: **TOTAL DELIVERY**
 Tilausvahvistus Order Confirmation: **3B**
 Auftragsbestätigung Accuse de reception: 
 Laivaus Shipping: **ASME SA516-04/ASTM A516-04**
 Verschiffung Embarquement: **ASME SA516-04/ASTM A516-04**
 Toimitustyyppi Delivery type: **ASME SA516-04/ASTM A516-04**
 Versandart Type de livraison: **ASME SA516-04/ASTM A516-04**
 Todistus Certificate: **ASME SA516-04/ASTM A516-04**
 Zeugnis Certificat: **ASME SA516-04/ASTM A516-04**

Tuote Product: **HEAVY PLATES**
 Erzeugnisform Product: **ASME SA- /ASTM A 516 GR 70**
 Laatu Quality: **ASME SA516-04/ASTM A516-04**
 Werkstoff Qualite: **ASME SA516-04/ASTM A516-04**
 Laatuselytyk Quality Specification: **ASME SA516-04/ASTM A516-04**
 Qualitätspezifikation Specification de qualite: **ASME SA516-04/ASTM A516-04**
 Tekniset vaatimukset ja tai viralliset määräykset: **ASME SA516-04/ASTM A516-04**
 Lieferbedingungen und/oder amtliche Vorschriften: **ASME SA516-04/ASTM A516-04**

Positio Item Pos. Poste	Mitat mm Dimensions mm Abmessungen mm	Merkki Mark Zeichen Marque	Kpl Pcs Stück Quantite	Paino kg Weight kg Gewicht kg Poids kg	Sulatus levy nro Cast plate No. Schmelz Walztafel Nr. Coulee Tole No	Koe nro Test No Prüf No Essai No
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PRODUCED WITH SULFIDE SHAPE CONTROL
 NORMALIZED STEEL PLATES

*	188	907330
**	188	907330
***	188	907330

07.11.2005

RUKKI PRODUCTION
Raaha Steel Works

Tarkastus ja tarkastus Testing and Inspection
 Prüfung und Kontrolle Essai et Contrôle

Täten todistamme, että toimitus on tilausvahvistuksen mukainen.
 We hereby certify that the material described above has been tested and complies with the terms of the order contract.
 Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellanahme entspricht.
 Nous certifions que la livraison est conforme aux stipulations de l'acceptation de la commande.

M. Valkama
MINNA VALKAMA

Vahvistettu tarkastaja Authorized Inspector
 Werksachverständiger Inspector autorisé

RUKKI PRODUCTION	Osoite Address: PL 93, P.O. Box 93 FIN-92101 RAAHE, FINLAND	Puhelin Telephone: 020 5911 +358 20 59111	Telekopio Telefax: 020 592 2736 +358 20 592 2736	Y-tunnus Business ID: 0113276-9
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Tilaja Purchaser Besteller Acheteur OLBERT METAL SALES LIMITED SUITE 305 Tilaus nro Order No. Bestellung Nr. Commande No. VA-08708	Vastaanottaja Consignee Empfänger Destinataire FEDERAL MARINE TERMINALS Lab. markki Shipping mark Versandzeichen Marque d'expédition	Päivämäärä Date Datum Date 04.11.2005 Valmistajan merkki Mark of the Manufacturer Zeichen des Herstellerwerkes Signe de producteur
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Lähtö Quality Werkstoff Nuance ASME SA- /ASTM A 516 GR 70 Lähtöselvitys Quality Specifications Qualifizierung Specification de qualité PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05	Lisävaat. Add. requirem. Weitere Anforder. Autres prescript. ASME SA-20 ED. 2004	Jatkuvavalettua happiterästä Oxygen steel, continuous casting Oxygenstahl, Strangguss Acier à l'oxygène, coulée continue
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Position Item Pos. Poste	Paksuus Thickness Dicke Epais.	Sulatus nro Cast No. Schmelz-Nr. No coulée	CEKV Ceq Ceq Ceq	Sulatusanalyysi % Chemical composition of cast % Chem. Zusammensetzung auf schmelze % Composition Chimique de coulée %															
				C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N		
001	9.53	75860	.41	.20	.38	1.13	.015	.003	.034	.016	.014	.003	.022	0.06	0.05	.010	.004		
001	9.53	76147	.40	.20	.35	1.12	.010	.001	.030	.014	.004	.003	.017	0.03	0.04	.001	.004		
003	12.70	76145	.40	.20	.38	1.14	.009	.001	.032	.015	.006	.004	.026	0.04	0.04	.002	.004		

N 920C, T=1.1 (MIN) XTHICKN (MM)
CEKV=C+MN/6+ (CR+MO+V) /5+ (NI+CU) /15

Pos. Item Pos. Poste	Sulatus, kerrä nro Cast, test No. Schmelze Prüf Nr. Coulée, Essai No	T-tila Cond Zust Etat	Vetokoe, Tensile test Zugversuch, Essai de traction				Täivutusk Bend test Falvers. Edeplage D = X t	Iskutkoe, Impact test Kerbschlagversuch, Essai de resilience					Erikoiskokeet Special tests Sonderversuche Essais Speciaux		
			K2	Re N/mm ²		Rm N/mm ²		A %	K3	°C	Keskiarvo Average Mittelw. Moyenne				
				Y/T	RP02						5	200		1	2
001	75860 032 N	F1	F1	.70	380	542	31	25	A15	-46	099	094	098	097	HARDNESS/HB 0165
			F7	.69	362	526	31	25	115	-46	096	116	097	103	
001	75860 042 N	F1	F1	.70	379	541	31	25	A15	-46	092	088	086	089	HARDNESS/HB 0162
			F7	.70	366	525	33	27	115	-46	111	112	093	105	
001	75860 059 N	F1	F1	.71	390	546	33	26	A15	-46	087	088	085	087	HARDNESS/HB 0169
			F7	.70	376	535	35	28	115	-46	122	123	099	115	
001	76147 031 N	F1	F1	.70	375	539	31	25	A15	-46	113	101	110	108	HARDNESS/HB 0165
			F7	.68	352	516	32	26	115	-46	108	098	108	105	
001	76147 032 N	F1	F1	.70	376	535	32	25	A15	-46	102	093	079	091	HARDNESS/HB 0163
			F7	.69	356	519	32	26	115	-46	118	103	158	126	
001	76147 041 N	F1	F1	.70	381	543	33	26	A15	-46	085	110	109	101	HARDNESS/HB 0159
			F7	.69	358	520	35	28	115	-46	103	105	107	105	
001	76147 042 N	F1	F1	.71	385	542	32	25	A15	-46	120	118	120	119	HARDNESS/HB 0159
			F7	.69	362	521	32	25	115	-46	104	109	118	110	
003	76145 021 N	F1	F1	.70	378	537	33	28	A11	-46	147	141	126	138	HARDNESS/HB 0153
			F7	.69	358	522	33	27	111	-46	131	119	130	127	
003	76145 022 N	F1	F1	.71	381	538	33	28	A11	-46	117	131	110	119	HARDNESS/HB 0160
			F7	.69	356	516	34	29	111	-46	122	141	115	126	
003	76145 023 N	F1	F1	.69	370	539	30	25	A11	-46	112	136	146	131	HARDNESS/HB 0164
			F7	.69	355	518	32	27	111	-46	077	122	116	105	

K2: F1=TOP, TRANSV., F7=NORM., TOP, TRANSV. K3: A15=NORMALIZED, CH-V/ISO-V (J), 7.5X10, TOP, LONGIT., 115=CH-V/ISO-V (J), 7.5X10, TOP, LONGIT, KV600, A11=NORMALIZED, CH-V/ISO-V (J), 10X10, TOP, LONGIT., 111=CH-V/ISO-V (J), 10X10, TOP, LONGIT, KV600

RUUKKI PRODUCTION
Raabe Steel Works
Tilastus ja tarkastus
Prüfung und Kontrolle

Tilien todistamme, että toimitus on tilauseräilytysten mukainen.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht.
Nous certifions que la livraison est conforme aux stipulations de l'acceptation de la commande.

07.11.2005 SMN

M. Valkama
MINNA VALKAMA

Välispuolisen tarkastajan
Werkstättensachverständiger

Authorized Inspector Puh. 020 5911
Inspekteur autorisé Tél. +358 20 5911

AR kuuma- ja kylmävalssattu as rolled warmgewalzt état de laminage	N normalisoitu normalized normalisiert normalisiert	NR normalisoitu valssattu normalizing rolling normalisiert gewalzt laminaze normalisat	CR kontrollitoitu valssattu controlled rolled temperatureregelt laminaze controle	TM termomek. valssattu thermomech. treated thermomech. behandelt traitement thermomechanique	QT karkaisu + päästö quenched + tempered härten + anlassen	Q karkaisu quenched gehärtet
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TEST REPORT 17072 -01

ORDER NO. VA-08708

CAST-TEST NO.	TENSILE TEST						IMPACT TEST (FT*LBF)			
	YIELD PT.		TENSILE STR.	ELONGATION		TEMP.	1.	2.	3.	AVERAGE
	KSI		KSI	%		DEG F				
	Y/T	RP02	RM	A 5	8 IN.					
75860 032	.70	55	79	31	25	-51	073	069	072	072
	.69	53	76	31	25	-51	071	086	072	076
75860 042	.70	55	78	31	25	-51	068	065	063	066
	.70	53	76	33	27	-51	082	083	069	077
75860 059	.71	57	79	33	26	-51	064	065	063	064
	.70	55	78	35	28	-51	090	091	073	085
76147 031	.70	54	78	31	25	-51	083	074	081	080
	.68	51	75	32	26	-51	080	072	080	077
76147 032	.70	55	78	32	25	-51	075	069	058	067
	.69	52	75	32	26	-51	087	076	117	093
76147 041	.70	55	79	33	26	-51	063	081	080	074
	.69	52	75	35	28	-51	076	077	079	077
76147 042	.71	56	79	32	25	-51	089	087	089	088
	.69	53	76	32	25	-51	077	080	087	081
76145 021	.70	55	78	33	28	-51	108	104	093	102
	.69	52	76	33	27	-51	097	088	096	094
76145 022	.71	55	78	33	28	-51	086	097	081	088
	.69	52	75	34	29	-51	090	104	085	093
76145 023	.69	54	78	30	25	-51	083	100	108	097
	.69	51	75	32	27	-51	057	090	086	077

RUUKKI PRODUCTION
TESTING AND INSPECTION

07.11.2005

M. Valkama
MINNA VALKAMA

Tilaja Purchaser Besteller Acheteur OLBERT METAL SALES LIMITED SUITE 305 Tilaus nro Order No. Bestellung Nr. Commande No. VA-08708	Vastaanottaja Consignee Empfänger Destinataire FEDERAL MARINE TERMINALS läh. merkki Shipping mark Versandzeichen Marque d'expédition	Päivämäärä Date Datum Date 04.11.2005 Valmistajan merkki Mark of the Manufacturer Zeichen des Herstellerwerkes Signe de producteur
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Lastu Quality Werkstoff Nuance ASME SA-/ASTM A 516 GR 70 Laatuselvitys Quality Specifications Qualitätspezifikation Spécification de qualité	Lisävaat. Add. requirem. Weitere Anforder. Autres prescript. ASME SA-20 ED. 2004	Jatkuvavalettua happeterästä Oxygen steel, continuous casting Oxygenstahl, Strangguss Acier à l'oxygène, coulée continue
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PRESS. VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05

Positio Item Pos. Poste	Paksuus Thickness Dicke Épais.	Sulatus nro Cast No Schmelz-Nr. No coulée	Cekiv Ceg Cag Cég	Sulaturanalyysi % Chemical composition of cast % Chem. Zusammensetzung auf schmelzen % Composition Chimique de coulée %															
				C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N		
003	12.70	76145	.40	.20	.38	1.14	.009	.001	.032	.015	.006	.004	.026	0.04	0.04	.002	.004		
004	12.70	75825	.41	.20	.39	1.14	.011	.003	.028	.015	.005	.004	.020	0.03	0.04	.002	.005		
004	12.70	75860	.41	.20	.38	1.13	.015	.003	.034	.016	.014	.003	.022	0.06	0.05	.010	.004		
004	12.70	76142	.39	.19	.37	1.10	.010	.002	.030	.016	.007	.003	.028	0.03	0.04	.004	.005		

N 920C, T=1.1 (MIN) XTHICKN (MM)
CEKV=C+MN/6+(CR+MO+V)/5+(NI+CU)/15

Pos. Item Pos. Poste	Sulatus, kera nro Cast, test No Schmelze Prüf Nr. Coulée, Essai No	T-tila Cond Zust Etat	Vetokoe, Tensile test Zugversuch, Essai de traction				Täivutus Bend test Fallvers. Édépilage D = Xt	Istukoe, Impact test Kerbschlagversuch, Essai de résilience					Erikoiskokeet Special tests Sonderversuche Essais Speciaux		
			K2	Re N/mm2	Rm N/mm2	A %		K3	°C	1	2	3		Keskisarvo Average Mittelw. Moyenne	
003	76145 031 N	F1	F1	.69	372	538	29	25	A11	-46	136	132	105	124	HARDNESS/HB 0167
			F7	.68	356	522	30	25	111	-46	154	122	140	139	
003	76145 032 N	F1	F1	.70	378	539	31	26	A11	-46	135	122	146	134	HARDNESS/HB 0169
			F7	.69	361	525	31	26	111	-46	107	135	139	127	
003	76145 033 N	F1	F1	.70	374	537	35	29	A11	-46	130	130	140	133	HARDNESS/HB 0170
			F7	.69	360	524	33	27	111	-46	144	115	120	126	
004	75825 012 N	F1	F1	.70	381	547	30	25	A11	-46	094	126	113	111	HARDNESS/HB 0164
			F7	.70	374	538	32	27	111	-46	132	092	137	120	
004	75860 031 N	F1	F1	.69	375	541	31	26	A11	-46	126	140	145	137	HARDNESS/HB 0176
			F7	.68	356	520	32	28	111	-46	129	127	127	128	
004	75860 041 N	F1	F1	.70	374	538	32	27	A11	-46	093	086	106	095	HARDNESS/HB 0158
			F7	.69	362	522	36	30	111	-46	097	121	073	097	
004	75860 051 N	F1	F1	.68	369	543	32	27	A11	-46	114	135	125	125	HARDNESS/HB 0156
			F7	.69	362	525	32	27	111	-46	093	080	077	083	
004	76142 011 N	F1	F1	.71	377	531	33	28	A11	-46	140	126	135	134	HARDNESS/HB 0163
			F7	.69	356	517	31	26	111	-46	095	097	120	104	
004	76142 012 N	F1	F1	.69	369	531	29	24	A11	-46	141	130	105	125	HARDNESS/HB 0161
			F7	.69	358	519	32	27	111	-46	119	100	100	106	
004	76142 021 N	F1	F1	.70	370	529	30	26	A11	-46	111	133	084	109	HARDNESS/HB 0163
			F7	.68	355	519	32	27	111	-46	099	081	106	095	

K2: F1=TOP, TRANSV., F7=NORM., TOP, TRANSV.
K3: A11=NORMALIZED, CH-V/ISO-V (J), 10X10, TOP, LONGIT., 111=CH-V/ISO-V (J), 10X10, TOP, LONGIT, KV600

RUUKKI PRODUCTION
Raabe Steel Works
Tutkimus, tarkastus
Prüfung und Kontrolle

Täten todistamme, että toimitus on tilausvalmistuksen mukainen.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht.
Nous certifions que la livraison est conforme aux stipulations de l'acceptation de la commande.

07.11.2005 SMN

H. Valkama
MINNA VALKAMA
Valtuutettu tarkastaja Authorized Inspector Puh. 020 5911
Werksachverständiger Inspecteur autorisé Tel. +358 20 5911

AR zuuravaissattu as rolled warmgewalzt état de laminage	N normalisoitu normalized normalgeglüht normalisiert	NR normalisoitu valssattu normalized rolling normalisiert gewalzt laminage normalisé	CR kontrollidusti valssattu controlled rolling temperatureregelt	TM termomek valssattu thermomech. treated thermomech. behandelt	QT karkaisu + päättö quenched + tempered härten + antlassen	Q karkaisu quenched
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K1X97

TEST REPORT 17072 -01


ORDER NO. VA-08708

CAST-TEST NO.	YIELD PT.		TENSILE TEST				TEMP. DEG F	IMPACT TEST (FT*LSF)			
	KSI	RP02	TENSILE STR. KSI RM	ELONGATION %		1.		2.	3.	AVERAGE	
	Y/T			A	5	8 IN.					
76145 031	.69	54	78	29	25		-51	100	097	077	091
	.68	52	76	30	25		-51	114	090	103	103
76145 032	.70	55	78	31	26		-51	100	090	108	099
	.69	52	76	31	26		-51	079	100	103	094
76145 033	.70	54	78	35	29		-51	096	096	103	098
	.69	52	76	33	27		-51	106	085	089	093
75825 012	.70	55	79	30	25		-51	069	093	083	082
	.70	54	78	32	27		-51	097	068	101	089
75860 031	.69	54	78	31	26		-51	093	103	107	101
	.68	52	75	32	28		-51	095	094	094	094
75860 041	.70	54	78	32	27		-51	069	063	078	070
	.69	53	76	36	30		-51	072	089	054	072
75860 051	.68	54	79	32	27		-51	084	100	092	092
	.69	53	76	32	27		-51	069	059	057	061
76142 011	.71	55	77	33	28		-51	103	093	100	099
	.69	52	75	31	26		-51	070	072	089	077
76142 012	.69	54	77	29	24		-51	104	096	077	092
	.69	52	75	32	27		-51	088	074	074	078
76142 021	.70	54	77	30	26		-51	082	098	062	080
	.68	51	75	32	27		-51	073	060	078	070

RUUKKI PRODUCTION
TESTING AND INSPECTION

07.11.2005

M. Valkama
MINNA VALKAMA

Tilaja Purchaser Besteller Acheteur OLBERT METAL SALES LIMITED SUITE 305 Tilaus nro Order No. Bestellung Nr. Commande No. VA-08708	Vastaanottaja Consignee Empfänger Destinataire FEDERAL MARINE TERMINALS	Päivämäärä Date Datum Date 04.11.2005
Laatu Quality Werkstoff Nuance ASME SA-20 ED. 2004	Liisvaat. Add. requirem. Weitere Anforder. Autres prescript. ASME SA-20 ED. 2004	Valmistajan merkki Mark of the Manufacturer Zeichen des Herstellerwerkes Signe de producteur 

PRESS. VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05

Positio Item Pos. Poste	Paksuus Thickness Dicke Epaisseur	Sulatus nro Cast No Schmelz-Nr. No coulée	CEKV Ceq Ciq Cég	Sulatusanalyysi % Chemical composition of cast % Chem. Zusammensetzung auf schmelzen % Composition Chimique de coulée %													
				C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N
004	12.70	76142	.39	.19	.37	1.10	.010	.002	.030	.016	.007	.003	.028	0.03	0.04	.004	.005
004	12.70	76143	.39	.20	.37	1.11	.008	.001	.035	.017	.007	.004	.024	0.03	0.04	.002	.004

N 920C, T=1.1 (MIN) XTHICKN (MM)
CEKV=C+MN/6+ (CR+MO+V) /5+ (NI+CU) /15

Pos. Item Pos. Poste	Sulatus, k. test nro Cast. test No Schmelz. Prüf Nr. Coulée, Essai No	T-tila Cond Zust Etat	Vetokoe, Tensile test Zugversuch, Essai de traction				Täivutus Bend test Faltvers. Edeplage D = X t	Iskukoe, Impact test Kerbschlagversuch, Essai de résilience					Erikoiskokeet Special tests Sonderversuche Essais Speciaux		
			K2	Re N/mm2	Rm N/mm2	A %		K3	°C	1	2	3		Keskiarvo Average Mittelw. Moyenne	
004	76142 022 N	F1	.69	364	531	32	27	A11	-46	092	125	105	107	HARDNESS/HB	0165
		F7	.70	359	512	32	28	111	-46	140	140	140	140		
004	76142 023 N	F1	.69	361	527	30	25	A11	-46	102	134	125	120	HARDNESS/HB	0162
		F7	.68	352	515	33	28	111	-46	113	111	091	105		
004	76142 031 N	F1	.69	369	533	32	27	A11	-46	134	139	157	143	HARDNESS/HB	0162
		F7	.70	358	515	33	28	111	-46	153	126	134	138		
004	76142 032 N	F1	.69	368	531	32	28	A11	-46	124	097	097	106	HARDNESS/HB	0161
		F7	.69	357	518	32	28	111	-46	136	140	096	124		
004	76142 033 N	F1	.69	365	532	34	29	A11	-46	115	100	113	109	HARDNESS/HB	0161
		F7	.69	357	516	33	28	111	-46	115	144	141	133		
004	76142 041 N	F1	.69	365	532	32	27	A11	-46	094	140	122	119	HARDNESS/HB	0176
		F7	.70	360	517	33	28	111	-46	110	129	117	119		
004	76142 042 N	F1	.71	375	530	34	28	A11	-46	118	115	118	117	HARDNESS/HB	0164
		F7	.69	355	515	33	28	111	-46	136	112	141	130		
004	76142 043 N	F1	.69	363	525	32	27	A11	-46	129	096	131	119	HARDNESS/HB	0159
		F7	.69	351	512	33	28	111	-46	144	119	136	133		
004	76143 051 N	F1	.68	361	531	36	30	A11	-46	139	126	126	130	HARDNESS/HB	0172
		F7	.68	352	516	35	30	111	-46	084	055	102	080		
004	76143 052 N	F1	.69	369	532	33	28	A11	-46	109	143	131	128	HARDNESS/HB	0165
		F7	.69	358	520	32	27	111	-46	125	148	135	136		

K2: F1=TOP, TRANSV., F7=NORM., TOP, TRANSV.
K3: A11=NORMALIZED, CH-V/ISO-V (J), 10X10, TOP, LONGIT., 111=CH-V/ISO-V (J), 10X10, TOP, LONGIT, KV600

RUUKKI PRODUCTION
Raahe Steel Works

Tiesi todistamme, että toimittu on tilausvalmistuksen mukainen.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht.
Nous certifions que la livraison est conforme aux stipulations de l'acceptation de la commande.

Testaus ja tarkastus Testing and Inspection
Prüfung und Kontrolle Essai et Contrôle

M. Valkama
MINNA VALKAMA
07.11.2005 SMN

Vastuutettu tarkastaja Authorized Inspector Pub. 020 5911
Werksachverständiger Inspecteur autorisé Tel. +358 20 5911

AR kuuma- ja normaali-
wärmegewalzt normalisoi-
normalgeglüht

NR normalisointi valssattu
normalizing rolling
normalisiert gewalzt

CR kontrolloidusti valssattu
controlled rolled
temperatureregelt

TM termomek. valssattu
thermomech. treated
thermomech. behandelte

QT karkaisu + päistö
quenched + tempered

Q karkaisu
quenched

TEST REPORT 17072 -01

ORDER NO. VA-08708

CAST-TEST NO.	TENSILE TEST				IMPACT TEST (FT*LBF)					
	YIELD PT. KSI	TENSILE STR. KSI	ELONGATION %		TEMP. DEG F	1.	2.	3.	AVERAGE	
	Y/T	RP02	RM	A 5	8 IN.					
76142 022	.69	53	77	32	27	-51	068	092	077	079
	.70	52	74	32	28	-51	103	103	103	103
76142 023	.69	52	76	30	25	-51	075	099	092	089
	.68	51	75	33	28	-51	083	082	067	077
76142 031	.69	54	77	32	27	-51	099	103	116	105
	.70	52	75	33	28	-51	113	093	099	102
76142 032	.69	53	77	32	28	-51	091	072	072	078
	.69	52	75	32	28	-51	100	103	071	091
76142 033	.69	53	77	34	29	-51	085	074	083	080
	.69	52	75	33	28	-51	085	106	104	098
76142 041	.69	53	77	32	27	-51	069	103	090	088
	.70	52	75	33	28	-51	081	095	086	088
76142 042	.71	54	77	34	28	-51	087	085	087	086
	.69	51	75	33	28	-51	100	083	104	096
76142 043	.69	53	76	32	27	-51	095	071	097	088
	.69	51	74	33	28	-51	106	088	100	098
76143 051	.68	52	77	36	30	-51	103	093	093	096
	.68	51	75	35	30	-51	062	041	075	059
76143 052	.69	54	77	33	28	-51	080	105	097	094
	.69	52	75	32	27	-51	092	109	100	100

RUUKKI PRODUCTION
TESTING AND INSPECTION

07.11.2005

M. Valkama
MINNA VALKAMA

TEST REPORT 17072 -01

ORDER NO. VA-08708

CAST-TEST NO.	TENSILE TEST						IMPACT TEST (FT*LBF)					
	YIELD PT.		TENSILE	STR.	ELONGATION		TEMP.	1.	2.	3.	AVERAGE	
	KSI		KSI		%		DEG F					
	Y/T	RP02	RM		A	5	8	IN.				
76143 053	.69	54	77	31	26	-51	084	100	094	092		
	.70	53	75	33	28	-51	089	099	083	091		
76147 043	.68	53	78	33	28	-51	066	064	080	070		
	.68	51	75	34	28	-51	101	091	102	098		
76145 011	.69	53	77	30	26	-51	086	083	073	080		
	.68	51	75	29	25	-51	114	097	098	103		
76145 012	.68	52	77	30	26	-51	108	094	083	095		
	.68	51	76	31	27	-51	093	085	093	090		
76147 012	.69	54	77	33	29	-51	097	083	085	089		
	.68	51	76	33	29	-51	103	083	078	089		
76147 021	.70	55	78	30	26	-51	111	103	088	100		
	.69	51	75	30	27	-51	090	097	111	100		
76147 022	.67	52	78	33	29	-51	090	100	101	097		
	.69	52	76	33	29	-51	094	097	097	096		
75632 011	.68	54	79	29	25	-51	097	079	033	070		
	.66	51	77	28	24	-51	090	084	074	083		
75632 021	.68	53	79	30	27	-51	067	082	091	080		
	.66	51	76	29	26	-51	108	116	074	099		
75632 022	.68	54	80	30	26	-51	069	060	083	071		
	.67	52	77	29	26	-51	103	091	094	096		

RUUKKI PRODUCTION
TESTING AND INSPECTION

07.11.2005

M. Valkama
MINNA VALKAMA

Tilaja Purchaser Besteller Acheteur OLBERT METAL SALES LIMITED SUITE 305 Tilaus nro Order No. Bestellung Nr. Commande No. VA-08708	Vastaanottaja Consignee Empfänger Destinataire FEDERAL MARINE TERMINALS Läh. merkki Shipping mark Versandzeichen Marque d'expédition	Päivämäärä Date Datum Date 04.11.2005 Valmistajan merkki Mark of the Manufacturer Zeichen des Herstellers Signe de producteur
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Laatu Quality Werkstoff Nuance ASME SA-/ASTM A 516 GR 70 Laatuselvitys Quality Specifications Qualitätspezifikation Specification de qualité	Lisävaat. Add. requirem. Weitere Anforder. Autres prescript. ASME SA-20 ED. 2004	Jäturvavaletus Lappeterästä Oxygen steel, continuous casting Oxygenstahl, Strangguss Acier à l'oxygène, coulée continue
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PRESS.VESSEL STEEL ED.2004 OF ASME CODE SEC II SA20 ADD-05

Posiio Item Pos. Poste	Paksuus Thickness Dicke Épais.	Sulatus nro Cast No Schmelz-Nr. No coulée	CEKV Ceq Ceq Ceq	Sulatusanalyysi % Chemical composition of cast % Chem. Zusammensetzung auf schmelzen % Composition Chimique de coulée %															
				C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N		
006	15.88	75632	.41	.21	.38	1.15	.010	.001	.035	.015	.007	.004	.016	0.03	0.04	.006	.004		
006	15.88	75634	.39	.20	.38	1.11	.010	.000	.036	.014	.005	.004	.021	0.03	0.04	.006	.003		

N 920C, T=1.1 (MIN) XTHICKN (MM)
CEKV=C+MN/6+ (CR+MO+V) /5+ (NI+CU) /15

Pos. Item Pos. Poste	Sulatus, kerrä nro Cast. test No Schmelze Prüf Nr. Coulée, Essai No	T-tila Cond Zust Etat	Vetokoe, Tensile test Zugversuch, Essai de traction				Taivutuskoe Bend test Fallvers. Edeplage D = Xt	Irkkokoe, Impact test Kerbschlagversuch, Essai de résilience					Erikoiskokeet Special tests Sonderversuche Essais Speciaux	
			K2	Rt N/mm2	Rm N/mm2	A %		K3	°C	1	2	3		Keskiarvo Average Mittelw. Moyenne
006	75632 031 N	F1	.66	360	542	32	28	A11	-46	092	120	103	105	HARDNESS/HB 0167
			F7	.67	356	533	32	28	111	-46	103	120	136	
006	75632 032 N	F1	.68	368	544	30	26	A11	-46	088	102	109	100	HARDNESS/HB 0145
			F7	.66	351	532	33	30	111	-46	142	107	105	
006	75632 041 N	F1	.65	353	543	29	25	A11	-46	090	076	054	073	HARDNESS/HB 0159
			F7	.66	349	530	32	28	111	-46	101	089	132	
006	75632 051 N	F1	.66	356	543	32	28	A11	-46	102	082	091	092	HARDNESS/HB 0159
			F7	.66	348	530	32	28	111	-46	123	099	089	
006	75632 052 N	F1	.65	351	536	31	27	A11	-46	023	091	085	066	HARDNESS/HB 0165
			F7	.66	345	520	31	27	111	-46	117	125	097	
006	75634 023 N	F1	.67	354	528	27	25	A11	-46	075	076	117	089	HARDNESS/HB 0166
			F7	.67	350	520	29	26	111	-46	127	126	072	
006	75634 031 N	F1	.68	361	531	28	24	A11	-46	109	093	134	112	HARDNESS/HB 0158
			F7	.68	352	517	28	25	111	-46	125	133	089	
006	75634 032 N	F1	.64	340	531	29	26	A11	-46	103	094	111	103	HARDNESS/HB 0163
			F7	.65	339	519	30	26	111	-46	094	123	096	
006	75634 041 N	F1	.67	359	532	32	28	A11	-46	096	079	064	080	HARDNESS/HB 0139
			F7	.67	347	517	32	28	111	-46	124	086	117	
006	75634 042 N	F1	.67	356	534	30	27	A11	-46	028	110	084	074	HARDNESS/HB 0148
			F7	.66	340	518	32	29	111	-46	120	122	095	

K2: F1=TOP, TRANSV., F7=NORM., TOP, TRANSV.
K3: A11=NORMALIZED, CH-V/ISO-V (J), 10X10, TOP, LONGIT., 111=CH-V/ISO-V (J), 10X10, TOP, LONGIT, KV600

**RUUKKI PRODUCTION
Raabe Steel Works**

Testaus ja tarkastus
Prüfung und Kontrolle

Testing and Inspection
Essais et Contrôle

Täten todistamme, että toiminta on tilaustyhteyksien mukainen.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht.
Nous certifions que la livraison est conforme aux stipulations de l'acceptation de la commande.

07.11.2005 SMN

M. Valkama
MINNA VALKAMA

Valtuutettu tarkastaja
Werkstoffverständiger

Authorized Inspector
Inspecteur autorisé

AR kuumavalssattu as rolled warmgewalzt
N normalisoitu normalizing normalgeüht
NR normalisoitu valssattu normalizing rolling normalisiert gewalzt
CR kontrolloidusti valssattu controlled rolled temperaturregeilt
TM termomek valssattu thermomech. treated thermomech. behandelt
QT karkaisu + paastó quenched + tempered härten + anlassen
Q karkaistu quenched gehärtet

TEST REPORT 17072 -01

ORDER NO. VA-08708

CAST-TEST NO.	TENSILE TEST					IMPACT TEST (FT*LBF)				
	YIELD PT.		TENSILE STR.	ELONGATION		TEMP.	1.	2.	3.	AVERAGE
	KSI	RP02	KSI	%	8 IN.	DEG F				
	Y/T		RM	A 5						
75632 031	.66	52	79	32	28	-51	068	089	076	077
	.67	52	77	32	28	-51	076	089	100	089
75632 032	.68	53	79	30	26	-51	065	075	080	074
	.66	51	77	33	30	-51	105	079	077	087
75632 041	.65	51	79	29	25	-51	066	056	040	054
	.66	51	77	32	28	-51	074	066	097	079
75632 051	.66	52	79	32	28	-51	075	060	067	068
	.66	50	77	32	28	-51	091	073	066	077
75632 052	.65	51	78	31	27	-51	017	067	063	049
	.66	50	75	31	27	-51	086	092	072	083
75634 023	.67	51	77	27	25	-51	055	056	086	066
	.67	51	75	29	26	-51	094	093	053	080
75634 031	.68	52	77	28	24	-51	080	069	099	083
	.68	51	75	28	25	-51	092	098	066	086
75634 032	.64	49	77	29	26	-51	076	069	082	076
	.65	49	75	30	26	-51	069	091	071	077
75634 041	.67	52	77	32	28	-51	071	058	047	059
	.67	50	75	32	28	-51	091	063	086	080
75634 042	.67	52	77	30	27	-51	021	081	062	055
	.66	49	75	32	29	-51	089	090	070	083

RUUKKI PRODUCTION
TESTING AND INSPECTION

07.11.2005

M. Valkama
MINNA VALKAMA

RUUKKI PRODUCTION

ANALYYSIJUODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHEINIGUNG COMPOSITION CHIMIQUE CERTIFICAT

Sulatus nro / Cast No / Stämbeben Nr. / No de coulée
Koe nro / Test No / Prüf Nr. / Essai No
Posiio / Item / Pos. / Poste
Cekki/PCM / Analyysi % / Chemical composition % / Chem. Zusammensetzung % / Composition Chimique %
Ceq / Ceq / Ceq / Ceq

AINESTODISTUS TEST REPORT
WERKZEUGNIS RELEVÉ DE CONTRÔLE
A17072-001

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	SN	PB	
75860	.41	.197	.38	1.13	.015	.003	.034	.016	.014	.003	.022	0.06	0.05	.010	.004	.0002	.003	.001
76147	.40	.198	.35	1.12	.010	.001	.030	.014	.004	.003	.017	0.03	0.04	.001	.004	.0003	.002	.002
76145	.40	.199	.38	1.14	.009	.001	.032	.015	.006	.004	.026	0.04	0.04	.002	.004	.0003	.002	.004
75825	.41	.205	.39	1.14	.011	.003	.028	.015	.005	.004	.020	0.03	0.04	.002	.005	.0003	.003	.003
75860	.41	.197	.38	1.13	.015	.003	.034	.016	.014	.003	.022	0.06	0.05	.010	.004	.0002	.003	.001
76142	.39	.193	.37	1.10	.010	.002	.030	.016	.007	.003	.028	0.03	0.04	.004	.005	.0002	.003	.000
76143	.39	.196	.37	1.11	.008	.001	.035	.017	.007	.004	.024	0.03	0.04	.002	.004	.0003	.002	.005
76147	.40	.198	.35	1.12	.010	.001	.030	.014	.004	.003	.017	0.03	0.04	.001	.004	.0003	.002	.004
76145	.40	.199	.38	1.14	.009	.001	.032	.015	.006	.004	.026	0.04	0.04	.002	.004	.0003	.002	.004
76147	.40	.198	.35	1.12	.010	.001	.030	.014	.004	.003	.017	0.03	0.04	.001	.004	.0003	.002	.004
75632	.41	.206	.38	1.15	.010	.001	.030	.014	.004	.003	.017	0.03	0.04	.001	.004	.0003	.002	.004
75634	.39	.195	.38	1.15	.010	.001	.035	.015	.007	.004	.016	0.03	0.04	.006	.004	.0003	.003	.001
75638	.40	.201	.38	1.10	.008	.000	.036	.016	.005	.004	.021	0.03	0.04	.006	.003	.0002	.002	.000
76147	.40	.198	.35	1.12	.010	.001	.030	.014	.004	.003	.017	0.03	0.04	.001	.004	.0003	.002	.004
75634	.39	.195	.38	1.11	.010	.000	.036	.014	.004	.003	.017	0.03	0.04	.001	.004	.0003	.002	.002
72894	.40	.201	.35	1.10	.011	.002	.029	.011	.005	.004	.021	0.03	0.04	.006	.003	.0002	.002	.000
75632	.41	.206	.38	1.15	.010	.001	.035	.015	.007	.004	.016	0.03	0.04	.002	.006	.0002	.003	.000
75634	.39	.195	.38	1.11	.010	.000	.036	.014	.005	.004	.021	0.03	0.04	.006	.004	.0003	.003	.001
75636	.39	.195	.36	1.07	.010	.001	.035	.015	.005	.004	.021	0.03	0.04	.006	.003	.0002	.002	.000
75638	.40	.201	.38	1.10	.008	.000	.036	.016	.005	.004	.024	0.03	0.04	.006	.003	.0002	.002	.000
75860	.41	.197	.38	1.13	.015	.003	.034	.016	.014	.003	.022	0.06	0.05	.010	.004	.0002	.003	.001
75827	.41	.209	.39	1.14	.010	.001	.032	.017	.006	.005	.018	0.03	0.04	.000	.004	.0003	.003	.004
75856	.40	.199	.39	1.15	.012	.003	.031	.016	.009	.004	.016	0.04	0.04	.003	.004	.0003	.003	.004
75857	.40	.199	.36	1.10	.014	.002	.033	.015	.010	.004	.015	0.06	0.05	.006	.005	.0003	.003	.001
75860	.41	.197	.38	1.13	.015	.003	.034	.016	.014	.003	.022	0.06	0.05	.010	.004	.0002	.003	.002

EQ=C+MN/6+(CR+NO+V)/5+(NI+CU)/15

RUUKKI PRODUCTION
Ruukki Steel Works

staten ja tarkastus / Testing and Inspection
prüfung und Kontrolle / Essais et Contrôle

A. Valkama
MINNA VALKAMA

Ruukkiin tarkastaja / Authorized Inspector
tarkastusvaltuutettu / Inspecteur autorisé

RUUKKI PRODUCTION
Yhtiön nimi / Company Name

Osoite / Address
PL 93, P.O. Box 93
FIN-92101 RAAHE, FINLAND

Puhelin / Telephone
020 5911
+358 20 5911

Telekopio / Telex
020 591 2736

Business ID
0113276-9

07.11.2005

RUUKKI PRODUCTION

ANALYYSITODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHEINIGUNG COMPOSITION CHIMIQUE CERTIFICAT

Sulatus into Koe into
Coat No Test No
Schmelzen Nr. Prüf Nr.
No de coulées Essai No

Positio Item
Post. Poste

Cekiv/PCM
Ceq
Cqg
Cqg

AINESTODISTUS TEST REPORT
WERKZEUGNIS RELEVÉ DE CONTRÔLE

A17072-001

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	SN	PB
75857	.199	.36	1.10	.014	.002	.033	.015	.010	.004	.015	0.06	0.05	.006	.005	.0003	.003	.002
75860	.197	.38	1.13	.015	.003	.034	.016	.014	.003	.022	0.06	0.05	.010	.004	.0002	.003	.001
75615	.212	.38	1.10	.011	.002	.032	.015	.008	.005	.018	0.04	0.05	.003	.004	.0003	.003	.003
75617	.205	.40	1.16	.009	.001	.038	.015	.010	.004	.016	0.04	0.04	.003	.004	.0003	.002	.004

CEQ=C*MN/6+(CR+MO*V)/5+(NI+CU)/15

RUUKKI PRODUCTION
Raahel Steel Works
Testaus ja tarkastus
Prüfung und Kontrolle
Essais et Contrôle

M. Valkama
MINNA VALKAMA

Valtuutettu tarkastaja
Authorized Inspector
Werkzeugmeister
Inspecteur autorisé

RUUKKI PRODUCTION

Osasto Address
PL 91, P.O. Box 93
FIN-92100 RAAHIL, FINLAND

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+358 20 5911

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020 592 2736
+358 20 592 2736

Business ID
0113276-9

07.11.2005

RUUKKI PRODUCTION

ANALYYSITODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHENIGUNG COMPOSITION CHIMIQUE CERTIFICAT

Sidetus into Kee nro Positio Ckv/PCM Analyysi %
 Cast No Test No Item Ceq
 Schmelzen Nr. Prüf Nr. Pos. Chem. Zusammensetzung %
 No de coulées Essai No Poste Compos. Chimique %

AINESTODISTUS TEST REPORT
 WERKZEUGNIS RELEVÉ DE CONTRÔLE

AL7072-001

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	SM	PB		
* 75860	032	.39	.192	.36	1.09	.014	.003	.034	.013	.015	.004	.021	0.06	0.05	.007	.004	.0004	.002	.000
* 75860	042	.39	.192	.37	1.10	.014	.002	.035	.014	.015	.004	.022	0.06	0.05	.007	.005	.0004	.002	.001
* 75860	059	.39	.187	.35	1.11	.015	.003	.033	.014	.015	.004	.021	0.06	0.05	.007	.004	.0003	.002	.000
* 76147	031	.39	.195	.34	1.11	.009	.000	.029	.012	.006	.004	.016	0.03	0.04	.001	.004	.0003	.002	.000
* 76147	032	.39	.194	.34	1.12	.008	.000	.030	.012	.006	.004	.017	0.03	0.04	.001	.004	.0004	.002	.001
* 76147	041	.39	.192	.34	1.11	.009	.001	.029	.012	.006	.004	.016	0.03	0.04	.001	.004	.0004	.002	.000
* 76147	042	.39	.192	.33	1.11	.010	.001	.028	.012	.006	.004	.016	0.03	0.04	.001	.004	.0004	.002	.000
* 76145	021	.39	.190	.36	1.13	.009	.001	.030	.012	.007	.004	.027	0.04	0.04	.001	.004	.0004	.002	.000
* 76145	022	.40	.201	.37	1.13	.010	.000	.030	.012	.007	.004	.027	0.04	0.04	.001	.004	.0004	.002	.000
* 76145	023	.40	.194	.37	1.13	.009	.001	.030	.013	.007	.004	.027	0.04	0.04	.001	.004	.0004	.002	.000
* 76145	031	.40	.193	.37	1.14	.009	.000	.030	.012	.007	.004	.028	0.04	0.04	.001	.004	.0004	.002	.000
* 76145	032	.40	.199	.37	1.14	.009	.000	.030	.013	.007	.004	.028	0.04	0.04	.001	.004	.0004	.002	.000
* 76145	033	.40	.192	.36	1.15	.009	.000	.029	.012	.007	.004	.027	0.04	0.04	.001	.004	.0004	.002	.000
* 75825	012	.40	.197	.37	1.14	.009	.003	.028	.012	.007	.005	.021	0.03	0.04	.001	.004	.0004	.002	.000
* 75860	031	.39	.185	.35	1.11	.015	.003	.033	.013	.014	.004	.021	0.06	0.05	.006	.004	.0003	.002	.001
* 75860	041	.40	.189	.36	1.12	.015	.003	.034	.014	.015	.004	.021	0.06	0.05	.006	.004	.0003	.002	.000
* 75860	051	.39	.189	.36	1.11	.014	.003	.033	.013	.015	.004	.021	0.06	0.05	.007	.004	.0003	.002	.000
* 76142	011	.38	.183	.35	1.08	.008	.002	.030	.013	.008	.004	.027	0.03	0.04	.001	.004	.0003	.002	.000
* 76142	012	.38	.189	.36	1.09	.009	.003	.030	.014	.008	.004	.027	0.03	0.04	.001	.004	.0003	.002	.000
* 76142	021	.38	.185	.35	1.08	.009	.003	.030	.013	.008	.004	.027	0.03	0.04	.001	.004	.0003	.002	.000
* 76142	022	.38	.187	.36	1.08	.009	.001	.031	.013	.008	.004	.027	0.03	0.04	.001	.004	.0002	.002	.000
* 76142	023	.38	.185	.36	1.09	.009	.002	.031	.013	.008	.004	.027	0.03	0.04	.001	.004	.0003	.002	.001
* 76142	031	.40	.203	.37	1.10	.010	.001	.032	.016	.008	.004	.028	0.03	0.04	.001	.004	.0003	.002	.000
* 76142	032	.38	.189	.36	1.09	.009	.001	.032	.014	.008	.004	.028	0.03	0.04	.001	.005	.0004	.003	.001
* 76142	033	.39	.199	.37	1.10	.009	.001	.031	.014	.008	.004	.028	0.03	0.04	.001	.005	.0004	.003	.001

*=KPL-ANALYYSI, CHECK ANALYSIS, KONTROLLE ANALYSE, COMP.CHEM.DE CONTROLE

RUUKKI PRODUCTION
Raah Steel Works
 Testaus ja laastus
 Prüfung und Kontrolle: Essais et Contrôle

A. Valkama
MINNA VALKAMA

Valtuutettu tarkastaja
 Werksschwermetallprüfer
 Authorized Inspector
 Inspecteur autorisé

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 Yhtiön nimi Company Name

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07.11.2005

RUUKKI PRODUCTION

ANALYYSITODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHEINIGUNG COMPOSITION CHIMIQUE CERTIFICAT

AINISTODISTUS TEST REPORT
WERKZEUGNIS RELIEVE DE CONTROLE AL17072-001

Sidatus nro / Cast No / Schmelzen Nr. / No de coulée / Koe nro / Test No / Prof.Nr. / Essai No / Posiio / Item / Poste / Ceqv/PCM / Analyysi % / Chemical composition % / Chem. Zusammensetzung % / Ceq / Ceq / Ceq

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	SM	PB		
* 76142	041	.38	.187	.35	1.09	.008	.002	.031	.012	.008	.004	.027	0.03	0.04	.001	.004	.0003	.002	.000
* 76142	042	.38	.187	.35	1.09	.009	.002	.030	.013	.008	.004	.026	0.03	0.04	.001	.004	.0003	.002	.000
* 76142	043	.39	.191	.35	1.09	.009	.002	.030	.013	.008	.004	.025	0.03	0.04	.001	.004	.0003	.002	.000
* 76143	051	.39	.190	.35	1.10	.008	.002	.031	.012	.007	.004	.025	0.03	0.04	.001	.004	.0003	.002	.000
* 76143	052	.39	.190	.36	1.13	.009	.002	.030	.013	.007	.004	.025	0.03	0.04	.001	.004	.0003	.002	.000
* 76143	053	.39	.191	.35	1.12	.008	.002	.030	.012	.007	.004	.026	0.03	0.04	.001	.004	.0003	.002	.000
* 76147	043	.40	.199	.34	1.13	.010	.000	.029	.013	.007	.004	.026	0.04	0.04	.001	.003	.0003	.002	.000
* 76145	011	.39	.188	.36	1.13	.008	.000	.030	.013	.006	.004	.016	0.03	0.04	.001	.004	.0004	.002	.000
* 76145	012	.41	.199	.37	1.17	.012	.001	.029	.015	.007	.004	.027	0.04	0.04	.001	.004	.0004	.002	.001
* 76147	012	.39	.196	.34	1.12	.009	.001	.029	.012	.006	.004	.017	0.03	0.04	.001	.005	.0004	.002	.000
* 76147	021	.40	.202	.34	1.12	.009	.001	.028	.012	.006	.004	.016	0.03	0.04	.001	.004	.0003	.002	.001
* 76147	022	.39	.195	.34	1.10	.008	.001	.029	.011	.006	.004	.016	0.03	0.04	.001	.004	.0004	.002	.000
* 75632	011	.40	.194	.37	1.14	.011	.001	.034	.011	.008	.004	.015	0.03	0.04	.003	.004	.0003	.002	.001
* 75632	021	.40	.195	.37	1.13	.009	.001	.035	.012	.008	.004	.015	0.03	0.04	.002	.003	.0003	.002	.000
* 75632	022	.40	.196	.37	1.14	.010	.001	.035	.013	.008	.005	.015	0.03	0.04	.003	.005	.0004	.002	.000
* 75632	031	.41	.205	.38	1.16	.011	.000	.035	.014	.008	.005	.015	0.03	0.04	.004	.003	.0004	.002	.000
* 75632	032	.41	.200	.38	1.16	.011	.001	.034	.013	.008	.005	.015	0.03	0.04	.004	.003	.0004	.002	.001
* 75632	041	.39	.195	.37	1.12	.009	.000	.035	.012	.008	.005	.015	0.03	0.04	.003	.003	.0004	.002	.000
* 75632	051	.39	.197	.37	1.11	.010	.001	.035	.012	.008	.005	.015	0.03	0.04	.003	.003	.0004	.002	.000
* 75632	052	.39	.197	.37	1.11	.011	.000	.035	.012	.008	.005	.017	0.03	0.04	.004	.004	.0004	.001	.002
* 75634	023	.39	.195	.37	1.09	.010	.000	.035	.013	.007	.005	.019	0.03	0.04	.003	.003	.0003	.002	.001
* 75634	031	.38	.193	.37	1.07	.009	.000	.035	.012	.006	.005	.022	0.03	0.04	.002	.003	.0003	.002	.001
* 75634	032	.39	.197	.37	1.07	.009	.000	.036	.012	.006	.005	.022	0.03	0.04	.002	.003	.0003	.002	.000
* 75634	041	.39	.197	.37	1.07	.009	.000	.035	.013	.006	.005	.022	0.03	0.04	.003	.003	.0003	.002	.002
* 75634	042	.39	.197	.36	1.07	.010	.001	.035	.013	.006	.005	.018	0.03	0.04	.004	.003	.0003	.002	.002
* 75634	043	.39	.199	.36	1.06	.009	.000	.035	.012	.006	.005	.017	0.03	0.04	.004	.003	.0003	.002	.000

CEQ=C+M/6+(CR+MO+V)/5+(NI+CU)/15

*KPL-ANALYYSI, CHECK ANALYSIS, KONTROLLE ANALYSE, COMP.CHEM.DE CONTROLE

RUUKKI PRODUCTION
Raabe Steel Works

Asiantuntija tarkastaja / Authorized Inspector
Erksachverständiger / Inspecteur autorisé

A. Valkama
MINNA VALKAMA

Yhtiön nimi / Company Name
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Business ID

07.11.2005

RUUKKI PRODUCTION

ANALYYSITODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHEINIGUNG COMPOSITION CHIMIQUE CERTIFICAT

Sulatus nro Koe nro
Cast No Test No
Schmelzen Nr. Prof. Nr.
No de coulée Essai No

Positi
Item

Ceiv/PCM
Coq

Analysi %
Chemical composition %
Chem. Zusammensetzung %
Composition Chimique %

AINESTODISTUS TEST REPORT
WERKZEUGNIS RELEVÉ DE CONTRÔLE

AL7072-001

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	SM	PB
* 75638	014	.39	.194	.36	1.08	.008	.000	.034	.013	.006	.005	.024	0.03	0.04	.001	.003.0003	.002 .000
* 75638	033	.38	.191	.36	1.08	.008	.000	.033	.012	.006	.005	.025	0.03	0.04	.001	.003.0003	.002 .000
* 76147	051	.38	.182	.33	1.10	.009	.001	.028	.011	.006	.004	.016	0.03	0.04	.001	.003.0003	.002 .000
* 75634	014	.39	.194	.37	1.10	.008	.000	.037	.013	.007	.005	.023	0.03	0.04	.002	.003.0003	.002 .000
* 75634	021	.38	.192	.36	1.08	.009	.000	.035	.012	.006	.005	.022	0.03	0.04	.002	.003.0003	.002 .000
* 75634	022	.38	.190	.36	1.09	.010	.000	.036	.012	.006	.005	.022	0.03	0.04	.002	.003.0003	.002 .000
* 72894	033	.39	.196	.35	1.10	.010	.001	.031	.010	.005	.002	.027	0.03	0.04	.002	.003.0003	.002 .000
* 75632	012	.40	.201	.37	1.13	.009	.001	.034	.012	.008	.004	.015	0.03	0.04	.002	.003.0003	.002 .000
* 75632	042	.38	.185	.37	1.10	.009	.001	.035	.012	.008	.005	.016	0.03	0.04	.002	.003.0003	.002 .000
* 75634	011	.40	.199	.37	1.11	.010	.000	.035	.013	.007	.005	.021	0.03	0.04	.002	.003.0003	.002 .000
* 75634	012	.39	.194	.36	1.10	.010	.000	.035	.012	.006	.005	.021	0.03	0.04	.002	.003.0003	.002 .000
* 75634	013	.38	.191	.36	1.09	.010	.000	.035	.012	.006	.005	.021	0.03	0.04	.002	.003.0003	.002 .000
* 75636	011	.39	.199	.36	1.06	.009	.000	.035	.012	.006	.005	.021	0.03	0.04	.002	.003.0003	.002 .000
* 75636	012	.39	.198	.35	1.06	.011	.001	.035	.013	.006	.005	.016	0.03	0.04	.002	.003.0003	.002 .000
* 75636	013	.39	.203	.35	1.06	.009	.000	.036	.014	.006	.005	.015	0.03	0.04	.005	.003.0003	.002 .001
* 75636	014	.39	.206	.35	1.05	.009	.000	.035	.014	.006	.004	.015	0.03	0.04	.005	.003.0003	.002 .002
* 75636	022	.39	.204	.36	1.06	.010	.000	.035	.015	.007	.005	.015	0.03	0.04	.005	.003.0003	.002 .002
* 75636	023	.39	.200	.36	1.05	.009	.000	.035	.013	.006	.004	.015	0.03	0.04	.005	.003.0003	.002 .002
* 75636	024	.39	.201	.35	1.05	.009	.001	.035	.013	.006	.004	.015	0.03	0.04	.005	.003.0003	.002 .002
* 75636	031	.39	.201	.36	1.06	.009	.000	.036	.014	.007	.005	.014	0.03	0.04	.005	.004.0004	.002 .001
* 75636	032	.39	.201	.36	1.06	.009	.000	.036	.014	.007	.005	.015	0.03	0.04	.005	.003.0003	.002 .001
* 75636	033	.38	.193	.35	1.05	.010	.001	.036	.015	.007	.005	.015	0.03	0.04	.005	.003.0003	.002 .003
* 75636	034	.39	.202	.35	1.04	.009	.000	.036	.014	.006	.004	.015	0.03	0.04	.005	.004.0004	.002 .002
* 75636	041	.39	.197	.36	1.07	.009	.001	.035	.013	.006	.005	.015	0.03	0.04	.005	.003.0003	.002 .002
* 75636	042	.39	.201	.36	1.06	.008	.000	.034	.013	.006	.004	.021	0.03	0.04	.003	.003.0004	.002 .002

REQ=C+MN/6+(CR+MO+V)/5+(NI+CU)/15

**KPL-ANALYST, CHECK ANALYSIS, KONTROLLE ANALYSE, COMP. CHEM. DE CONTROLE

RUUKKI PRODUCTION
Raabe Steel Works

eskus ja tarkastus
Testing and Inspection
prüfung und Kontrolle Essais et Contrôle

A. Valkama
MINNA VALKAMA

Ilmestetty tarkastaja
Authorized Inspector
Bescheinigt Inspektor
Inspektor autorizé

RUUKKI PRODUCTION
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07.11.2005

RUUKKI PRODUCTION

ANALYYSITODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHEINIGUNG COMPOSITION CHIMIQUE CERTIFICAT

Sulatus tito Koe tito
Cast No Test No
Schmelzen Nr. Prüf Nr.
No de coulée Essai No

Positie
Iton

Cekw/PCM
Ceq
Ceq
Ceq

Analysi %
Chemical composition %
Chem. Zusammensetzung %
Composition Chimique %

AINESTODISTUS TEST REPORT
WERKZEUGNIS RELEVÉ DE CONTRÔLE

AI17072-001

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	SN	PB	
* 75636	.39	.200	.37	1.08	.009	.000	.034	.014	.006	.005	.022	0.03	0.04	.003	.003	.0003	.002	.001
* 75636	.39	.201	.36	1.07	.011	.000	.035	.015	.006	.005	.015	0.03	0.04	.005	.003	.0004	.002	.001
* 75638	.39	.198	.37	1.09	.008	.000	.035	.014	.006	.005	.023	0.03	0.04	.001	.003	.0003	.002	.000
* 75638	.39	.198	.36	1.08	.009	.001	.034	.014	.006	.005	.024	0.03	0.04	.001	.003	.0003	.002	.000
* 75860	.40	.194	.36	1.09	.014	.003	.034	.013	.014	.004	.024	0.03	0.04	.001	.003	.0003	.002	.000
* 75860	.39	.186	.36	1.11	.013	.003	.034	.014	.014	.004	.020	0.06	0.05	.007	.005	.0003	.002	.000
* 75860	.39	.188	.35	1.10	.014	.003	.034	.014	.014	.004	.021	0.06	0.05	.007	.005	.0003	.002	.000
* 75860	.39	.184	.35	1.11	.014	.002	.034	.013	.014	.004	.021	0.06	0.05	.007	.005	.0003	.002	.000
* 75860	.39	.187	.36	1.11	.015	.003	.034	.013	.014	.004	.021	0.06	0.05	.007	.005	.0003	.002	.000
* 75860	.39	.185	.35	1.10	.014	.002	.034	.013	.014	.004	.021	0.06	0.05	.007	.005	.0003	.002	.000
* 75827	.41	.210	.36	1.12	.010	.001	.031	.014	.007	.006	.018	0.06	0.05	.007	.005	.0004	.002	.001
* 75856	.39	.192	.37	1.13	.012	.003	.030	.013	.007	.006	.018	0.03	0.04	.001	.003	.0004	.002	.002
* 75856	.39	.189	.37	1.11	.011	.003	.030	.015	.009	.004	.015	0.04	0.04	.000	.004	.0004	.002	.000
* 75856	.39	.191	.37	1.12	.011	.003	.031	.013	.010	.005	.015	0.04	0.04	.003	.004	.0002	.001	.000
* 75856	.39	.192	.37	1.12	.013	.002	.030	.013	.010	.005	.015	0.04	0.04	.001	.004	.0004	.002	.001
* 75856	.39	.193	.37	1.12	.011	.002	.031	.013	.010	.005	.015	0.04	0.04	.002	.004	.0004	.002	.000
* 75856	.38	.181	.36	1.09	.011	.003	.031	.012	.010	.005	.014	0.04	0.04	.001	.003	.0004	.001	.002
* 75856	.39	.188	.36	1.12	.011	.002	.032	.013	.010	.005	.015	0.04	0.04	.001	.003	.0004	.002	.001
* 75856	.40	.203	.37	1.12	.012	.002	.031	.013	.010	.005	.015	0.04	0.04	.001	.004	.0003	.002	.000
* 75856	.39	.192	.36	1.12	.012	.002	.032	.013	.010	.005	.015	0.04	0.04	.001	.004	.0004	.002	.001
* 75856	.39	.188	.36	1.11	.012	.002	.032	.013	.011	.005	.015	0.05	0.04	.003	.004	.0004	.002	.000
* 75857	.40	.197	.36	1.11	.013	.002	.033	.014	.013	.004	.017	0.06	0.05	.009	.004	.0004	.002	.000

*=KPL-ANALYYSI, CHECK ANALYSIS, KONTROLLE ANALYSE, COMP.CHEM.DE CONTRÔLE

RUUKKI PRODUCTION
Raahel Steel Works

testaus ja tarkastus
Testing and Inspection
Prüfung und Kontrolle

A. Castronovo
MINNA VALKAMA

tuoteita tarkastaja
Inspektorschef
Produktionsleiter

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Yhtiön nimi: Ruukki Oy

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Business ID

07.11.2005

RUUKKI PRODUCTION

ANALYYSITODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHEINIGUNG COMPOSITION CHIMIQUE CERTIFICAT

Solutus into Koe into Positio Ceko/PCM Analyysi %
Cast No Test No Item Ccq
Schmelzen Nr. Prüf Nr. Pos. Ccq
No de coulée Essai No Poste Ccq

ANESTODISTUS TEST REPORT
WERKZEUGNIS RELEVÉ DE CONTRÔLE

A1.7072-001

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	SN	PB	
* 75857	.40	.197	.35	1.10	.014	.002	.032	.013	.012	.004	.016	0.06	0.05	.009	.003	.0004	.001	.002
* 75857	.40	.192	.35	1.10	.013	.002	.033	.013	.013	.004	.018	0.06	0.05	.007	.005	.0003	.002	.001
* 75857	.39	.189	.35	1.10	.015	.002	.033	.013	.014	.004	.020	0.06	0.05	.008	.004	.0003	.002	.002
* 75860	.39	.186	.36	1.11	.015	.003	.034	.014	.015	.004	.021	0.06	0.05	.007	.005	.0004	.002	.000
* 75857	.40	.193	.35	1.11	.014	.003	.031	.013	.011	.004	.015	0.06	0.04	.005	.005	.0004	.002	.000
* 75857	.40	.194	.35	1.09	.012	.002	.032	.012	.012	.004	.016	0.06	0.04	.007	.004	.0004	.002	.002
* 75857	.40	.195	.35	1.10	.012	.002	.033	.013	.012	.004	.016	0.06	0.04	.008	.004	.0004	.002	.003
* 75857	.40	.198	.35	1.11	.013	.003	.032	.013	.012	.004	.016	0.06	0.05	.007	.004	.0004	.002	.001
* 75857	.40	.196	.35	1.10	.014	.003	.032	.012	.012	.004	.016	0.06	0.05	.008	.004	.0004	.002	.001
* 75857	.40	.197	.35	1.10	.013	.002	.033	.013	.012	.004	.016	0.06	0.05	.007	.004	.0003	.002	.001
* 75857	.40	.195	.35	1.10	.014	.003	.032	.012	.012	.004	.016	0.06	0.05	.007	.005	.0004	.002	.000
* 75857	.40	.197	.35	1.09	.013	.003	.032	.011	.012	.004	.016	0.06	0.05	.007	.004	.0004	.002	.000
* 75857	.40	.194	.35	1.10	.012	.002	.033	.013	.012	.004	.016	0.06	0.05	.008	.004	.0004	.002	.003
* 75857	.40	.195	.35	1.09	.014	.002	.032	.012	.012	.004	.016	0.06	0.05	.008	.004	.0004	.002	.001
* 75857	.40	.191	.34	1.10	.014	.003	.032	.012	.012	.004	.016	0.06	0.05	.008	.004	.0004	.002	.001
* 75860	.39	.186	.36	1.11	.015	.003	.034	.013	.014	.004	.021	0.06	0.05	.007	.005	.0003	.002	.000
* 75615	.41	.212	.37	1.09	.011	.002	.029	.011	.009	.005	.018	0.04	0.05	.002	.005	.0004	.002	.000
* 75615	.40	.201	.37	1.09	.011	.002	.030	.011	.009	.005	.018	0.04	0.05	.002	.004	.0004	.002	.000
* 75615	.40	.203	.37	1.09	.011	.002	.031	.011	.009	.005	.018	0.04	0.05	.003	.004	.0003	.002	.000
* 75615	.40	.203	.37	1.08	.011	.002	.030	.011	.009	.005	.018	0.04	0.05	.002	.004	.0004	.002	.000
* 75615	.41	.209	.37	1.11	.012	.001	.031	.013	.009	.006	.018	0.04	0.05	.003	.004	.0003	.002	.000
* 75615	.40	.201	.37	1.09	.011	.002	.031	.010	.009	.005	.018	0.04	0.05	.002	.004	.0004	.002	.000
* 75615	.41	.208	.38	1.10	.012	.001	.031	.012	.009	.005	.018	0.04	0.05	.002	.004	.0003	.002	.000
* 75615	.40	.203	.37	1.10	.011	.001	.031	.011	.009	.005	.018	0.04	0.05	.003	.003	.0003	.002	.002
* 75617	.40	.200	.37	1.13	.011	.001	.035	.011	.011	.004	.017	0.04	0.04	.004	.005	.0004	.002	.000

CEQ=C+MN/6+(CR+NO+V)/5+(NI+CU)/15

*=KPL-ANALYYSI, CHECK ANALYSIS, KONTROLLE ANALYSE, COMP.CHEM.DE CONTROLE

RUUKKI PRODUCTION
Raahе Steel Works

Testaus ja tarkastus
Prüfung und Kontrolle

Testing and Inspection
Essais et Contrôle

A. Cassanen
MINNA VALKAMA

Väljaõlettu tarkastaja
Vetschäftverantwärtiger

Authorized Inspector
Inspektor autorisoid

RUUKKI PRODUCTION
Yhtiön nimi: Comp...

Osasto Address
PL-91, P.O. Box 93
FIN-92101 RAAHE, FINLAND

Puhelin Telephone
020 5911
+358 20 5911

Telekopio Telefax
020 592 2736

Business ID
01132769

07.11.2005

RUUKKI PRODUCTION

ANALYYSITODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHEINIGUNG COMPOSITION CHIMIQUE CERTIFICAT

Sulatus no / Cast No / Schmelzen Nr. / No de coulée
 Test No / Prüf Nr. / Essai No
 Positio / Item / Poste
 Ceq / Ceq / Ceq
 Ceq / Ceq / Ceq
 Analyysi % / Chemical composition % / Chem. Zusammensetzung % / Composition Chimique %

ANESTODISTUS TEST REPORT
 WERKZEUGNIS RELEVÉ DE CONTRÔLE
 A17072-001

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	SN	PB
* 75617 012	.200	.37	1.14	.010	.002	.035	.011	.011	.004	.017	0.04	0.04	.003	.005	.0003	.002	.000
* 75617 013	.201	.37	1.13	.009	.001	.035	.011	.011	.004	.017	0.04	0.04	.004	.004	.0003	.002	.001
* 75617 021	.202	.38	1.14	.010	.002	.036	.012	.011	.004	.017	0.04	0.04	.004	.005	.0004	.002	.000
* 75617 022	.200	.38	1.15	.010	.002	.035	.013	.011	.005	.017	0.04	0.04	.004	.005	.0003	.002	.000
* 75617 023	.207	.39	1.18	.010	.001	.036	.014	.012	.005	.017	0.04	0.04	.004	.005	.0003	.002	.000
* 75617 031	.199	.38	1.15	.010	.001	.037	.012	.011	.005	.017	0.04	0.04	.004	.005	.0003	.002	.001
* 75617 032	.202	.38	1.15	.010	.002	.037	.012	.011	.005	.017	0.04	0.04	.004	.006	.0003	.002	.000
* 75617 033	.193	.38	1.15	.010	.001	.037	.012	.011	.004	.017	0.04	0.04	.003	.006	.0004	.002	.000
* 75617 041	.203	.38	1.16	.010	.001	.036	.013	.011	.005	.017	0.04	0.04	.004	.005	.0003	.002	.000
* 75617 042	.206	.38	1.15	.010	.001	.033	.012	.010	.005	.019	0.04	0.04	.004	.005	.0003	.002	.000
* 75617 043	.206	.38	1.14	.009	.001	.033	.013	.009	.005	.020	0.04	0.04	.003	.005	.0004	.002	.000



CEQ=C+MN/6+(CR+MO+V)/5+(NI+CU)/15

*=KPL-ANALYYSI, CHECK ANALYSIS, KONTROLLE ANALYSE, COMP.CHEM.DE CONTROLE

07.11.2005

RUUKKI PRODUCTION

Raabe Steel Works
 Testaus ja tarkastus / Testing and Inspection
 Prüfung und Kontrolle / Essais et Contrôle

M. Valkama
MINNA VALKAMA

Vahvistettu testaus / Authorized Inspector

RUUKKI PRODUCTION

Osasto / Address

PL 93, P.O. Box 93
 FIN-02101 RAAHE, FINLAND

Puhelin / Telephone

020 5911
 +358 20 5911

Tekkoplo / Telex

070 592 2736
 +358 20 592 2736

Business ID

0113276-9

To. 017370 Kw-30829610 ENTERED 11B 14 2006

16" sch. std. S.A.S.S.L ERW Pipe #4
H7# A 83412

INSPECTION CERTIFICATE

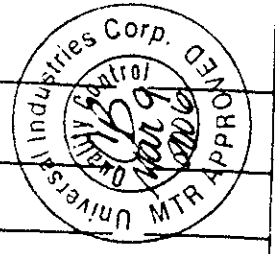
SH980317JK
P/O HAY-311
2004. 03. 10
E.R.W. STEEL PIPE
API 5L/ASTM A53B

HUSTEEL CO., LTD.
(SHINHO STEEL CO., LTD.)
HEAD OFFICE : Shinan B/D 15F. 843-18, Daechi-dong
Kangnam-Ku, Seoul 135-845, Korea A
INCHON PLANT : 469, Hagi-K-Dong, Nam-Ku, Incheon, Korea
DAEBUL PLANT : 11 BLOK, DAEBUL NATIONAL INDUSTRIAL COMPLEX,
MABUL-RI, SAMHO-BYEON, YOUNGAM-KUN, CHULLANAM-DO, KOREA

인증번호 : D040310 - 24
제조번호 : 03-11-201
주문자 : HUSTEEL CO., LTD.
수요자 : HUSTEEL USA INC.

ITEM NO.	HEAT NO. (LOT)	관종 TYPE	수량 QUANTITY (PIECES)	호칭명 NOMINAL SIZE (In)	주문치수 ORDER SIZE		중량 WEIGHT (lb/ft)	인장시험 TENSILE TEST		화학성분 CHEMICAL COMPOSITION (%)										비고 REMARKS				
					바깥지름 O.D. (mm)	두께 W.T. (in)		길이 LENGTH (ft)	인장강도 TENSILE STRENGTH (psi)	항복강도 YIELD STRENGTH (psi)	C	Si	Mn	P	S	Cu	Cr	Ni	Mo		V			
1	B07800	BPEB	25	16	406.4	0.250	40'	42.09	75126	52066	34	17	11	78	16	9	2	2	2	3	3	TR	1	
2	A71186	BPEB	4	16	406.4	0.250	40'	42.09	71936	48876	39	18	20	82	15	6	3	2	2	2	2	2	1	1
3	A83472	BPEB	25	16	406.4	0.375	40'	62.64	74111	59898	36	14	10	84	12	7	2	3	2	2	2	2	1	TR
4	A83470	BPEB	7	16	406.4	0.375	40'	62.64	76432	60478	34	14	20	85	12	9	3	2	2	2	2	2	1	1
5	A83298	BPEB	12	24	610.0	0.375	40'	94.71	73821	56997	33	13	11	88	11	7	2	2	2	2	2	3	1	1

ITEM NO.	수입시험 HYDROSTATIC TEST	열처리 온도 HEAT TREATMENT (°C)	경도시험 HARDNESS TEST (HRB)	외주경 CIRCUMFERENCE (mm)		플루이드 코팅 시험 FLUID COATING TEST	시공도 검사 VISUAL & DIMENSION TEST	평면 인장 시험 FLAT-TENSILE TEST	W D T	R G T	F R T	C R T	R F T	S.T (%)	충격 시험 IMPACT TEST	ENE-SHEAR AREA (J)	RES. MAG. (%)	잔류 자기 Res. Mag.	비고 REMARKS
				END	BODY														
1	660	930	ACCEPT			ACCEPT	ACCEPT	GOOD	GOOD	GOOD	GOOD	GOOD	0.1						
2	660	930	ACCEPT			ACCEPT	ACCEPT	GOOD	GOOD	GOOD	GOOD	GOOD	0.1						
3	980	950	ACCEPT			ACCEPT	ACCEPT	GOOD	GOOD	GOOD	GOOD	GOOD	0.1						
4	980	950	ACCEPT			ACCEPT	ACCEPT	GOOD	GOOD	GOOD	GOOD	GOOD	0.1						
5	660	950	ACCEPT			ACCEPT	ACCEPT	GOOD	GOOD	GOOD	GOOD	GOOD	0.1						



#4

LAST ITEM

① TYPE BPE BLACK PLAIN ENDS BPEB BPE BEVELLED BTE BLACK THREADED ENDS BTC BLACK THREADED & COUPLED BPE GALVANIZED PLAIN ENDS GTE GALVANIZED THREADED ENDS GTC GALVANIZED THREADED & COUPLED
 ② O.D. OUTSIDE DIAMETER ③ W.T. WALL THICKNESS ④ CHEMICAL COMPOSITION CHECK ANALYSIS 2.×100 3.×1000 TR TRACE ⑤ TP TESTING PRESSURE ⑥ NDT NONDESTRUCTIVE TEST
 E.T. Eddy Current Test U.T. Ultrasonic Test ⑦ WZC WEIGHT OF ZINC COATING CST COPPER SULPHATE TEST ⑧ WDT WELD DUCTILITY TEST RGT RING GAGE TEST FRT FRANGE TEST ⑨ RES. MAG. : RESIDUAL MAGNETISM
 CHT CHS TEST RET REVERSE FLATTENING TEST S.T. STRAIGHTNESS

본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다.
 WE HEREBY CERTIFY THAT THE PRODUCTS HEREIN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.

SIGNATURE

T. J. K.

MANAGER OF QUALITY ASSURANCE TEAM

#6

3266



Test Certificate

Form TCI Revision 1, Date 31 Oct 2000

Customer: SIEMENS LASER WORKS 511 50TH STREET EAST SASKATOON SK S7K6H3		Customer P.O. No.: 69467		Mill Order No.: 41-083519-05		Shipping Manifest : CT014724											
Product Description: ASTM A36(04)/A709(04)36/ASME SA36(01E/D) AASHTO M270(01)36				Ship Date: 09 Dec 04		Cert No: 051014855											
Size: 0.250 X 48.00 X 120.0 (IN)																	
Tested Pieces		Tensiles			Charpy Impact Tests												
Heat Id	Piece Dimensions	YS (PSI)	UTS (PSI)	Elong % of 2in 8in	Bend Test	Average Hardness	Absorbed Energy (FTLB)	% Shear	Test Temp	Test Dbr	Test Size (sq)	BDWTT					
30415680	0409(04)510	50000	64000	40	26			1 2 3 Avg									
30415680	0409(04)530	51000	63000	44	25												
		51000	64000	47	25												
		51000	63000	47	29												
Heat Id								Chemical Analysis									
30415680	C	Min	P	S	Si	Total	Cu	Ni	Mo	Cr	Cb	V	Ti	B	N	ORGN	MY
		.05	1.10	.007	.005	.13	.046	.08	.06	.04	.01	.003	.002	.000	.0000	.0067	



MATERIAL MARKED WITH AN ASTERISK IS PRODUCED FROM COIL
 50415680 0409C04520 PSES: 6, WGT: 2450

Cust Part #

WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION

Rob Mackenzie
 CHECKED BY

NUCOR

BAR MILL-PLYMOUTH

SOLD TO: VARSTEEL LTD.

#330, 220 - 4 STREET SOUTH
LETHBRIDGE, ALBERTA
CANADA T1J 4J7

SHIP TO: VARSTEEL LTD.

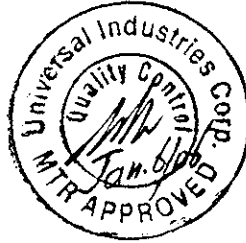
#1 - 7492 - 49 AVE
RED DEER, ALBERTA
CANADA T4P 1M2

NUCOR - PLYMOUTH IS AN I.S.O. 9001 AND AN A.B.S. CERTIFIED MILL

Requestor: SCALE

CUSTOMER PO#: 500129NI
BILL OF LADING: 24798
DATE: 1/21/05

Item Description	Heat#	Yield	Tensile	Elong	C	Mn	P	S	Si	Cu	Ni	Cr	V	Mo	Nb
Grade		P.S.I.	P.S.I.	8" Wt/Ft											
1/4 X 1	FLAT BAR 250129	49,896	69,308	26.0 00	.14	.72	.013	.047	.20	.39	.17	.13	.007	.056	.001
44W/A36-04/SA36-03		50,976	70,076	26.0	.850										



#7

STOCK - May 31/05 1/4" x 1" Flat bar 117250109

WE CERTIFY THAT ALL MANUFACTURING PROCESSES, INCLUDING MELTING OCCURRED IN STATES. ALL OF THE MATERIAL PRODUCED IS MADE FROM SCRAP STEEL AND IRON. PRODUCED ARE WELD FREE.

MICHAEL S. VERNON

Michael S. Vernon

PLANT METALLURGIST QUALITY ASSURANCE MANAGER

(A01)



VALLAUREC & MANNESMANN TUBES
V & M FRANCE
Tuberies de St Sauve

parc du Galibat ZI n° 4 - BP 2
59880 Saint-Sauve FRANCE
tel : 03.27.23.13.01
fax : 03.27.23.15.63

MATERIAL TEST REPORT

INSPECTION CERTIFICATE EN 10204 3.1.B

ISO 9001

(A01) Ref. 26-03-30362 2 / 3
(A08) N° V&M 1A0751/14

(C71-C92)

PRODUCT ANALYSIS

CE = C + F (MN/6 + Si/24 + C11/15 + Ni/20 + (Cr+Mo+V+NB)/5 + SB) < 0.40% ; Tests 1AK131 = 0.33% - 2AK131 = 0.13% and 1AK132 = 0.33% - 2AK132 = 0.13%

022. MIN/C

(C00) Test	(B08) Heat	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	Nb	V	B	022
MIN.		%	%	%	%	%	%	%	%	%	%	%	%	%	%
MAX.		%	%	%	%	%	%	%	%	%	%	%	%	%	%
1AK131	20624	0.16	0.20	0.74	0.010	0.003	0.12	0.04	0.10	0.19	0.00	0.00	0.00	0.000	4.63
1AK132	20435	0.16	0.20	0.76	0.018	0.002	0.14	0.03	0.09	0.18	0.02	0.00	0.00	0.000	4.75
2AK131	20624	0.16	0.20	0.75	0.009	0.002	0.12	0.04	0.10	0.18	0.00	0.00	0.00	0.000	4.69
2AK132	20435	0.16	0.20	0.76	0.018	0.002	0.14	0.03	0.09	0.19	0.02	0.00	0.00	0.000	4.75

(C10-C02-C03)

RECTANGULAR SPECIMEN LONGITUDINAL TENSILE TEST AT ROOM TEMPERATURE

(C00) Test	(B08) Heat	width	thick.	sect	(C11) Y.S.	(C12) T.S.	(C13) Elong. 2"
MIN.		mm	mm	mm ²	psi	psi	%
MAX.		mm	mm	mm ²	psi	psi	%
01AK131	20624	20.1	15.7	319.89	45119	72394	38
01AK132	20435	20.0	16.5	334.60	44249	70508	40

ROCKWELL C HARDNESS < OR = 22 GUARANTEED
(D01-D99)

NON DESTRUCTIVE TESTS

Test	Test rate	Specification	result
APPEARANCE & DIMENSIONS	100% LOT		OK
EDDY CURRENT TEST	100% LOT		OK
HYDROSTATIC TEST	100% LOT	CSA Z245-1	OK
C50-C69)			OK

TECHNOLOGICAL TESTS

Test	result
FLATTENING TEST	OK

(A01)



VALLOUREC & MANNESMANN TUBES
V & M FRANCE
Tuberie de St Saulve

100 rue du Calibot ZI n°4 - BP 2
59680 Saint-Saulve FRANCE

tel : 03 27 23 13 01
fax : 03 27 23 15 63

(A02)

MATERIAL TEST REPORT

INSPECTION CERTIFICATE EN 10204 3.1.B

ISO 9001

(A06) Ref: 26-03-303062 3 / 3
(A06) N° V&M: L-A0751/1-4

test	result
MANDREL BEND TEST	OK
FLARING TEST	OK

(Z01) 30/10/2003

(Z02)

Original computer copy - authenticity is guaranteed by the V&M logo.
All the pipes/tubes conform to the requirements of the order and standard regarding the grade, quality and heat treatment throughout their whole length.

(A05)

The authorized expert in Quality Control Section
Mr. SKORUPKA

CERTIFIED BY
UNIVERSAL INDUSTRIES CORP.
LLOYDMINSTER, ALBERTA

MAWP: 1440 PSI @ 100 °F

9928 KPa @ 38 °C

MAWP EXTERNAL: PSI @ °F

 KPa @ °C

MDMT: °F @ 1040 PSI

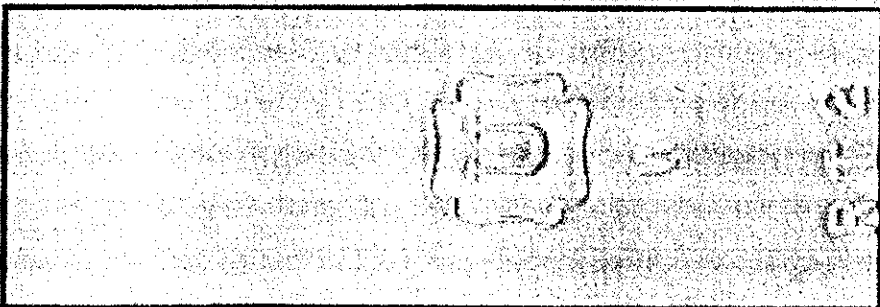
 °C @ 7028 KPa

SERIAL #: 00-01-00

YEAR BUILT: 2006 CRN: 30071330

0520002 667

COMPANY CODE: JOB #: 3334



GENERAL NOTES

DESIGN: _____
 DRAWN: _____
 CHECKED: _____
 APPROVED: _____
 COMPANY: _____
 PROJECT: _____
 SHEET NO.: _____
 TOTAL SHEETS: _____

MATERIAL SPECIFICATIONS

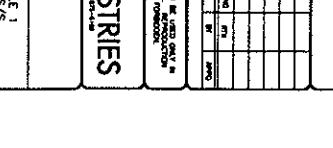
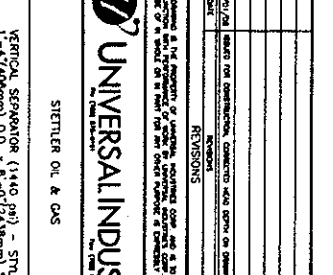
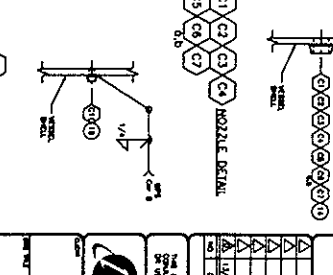
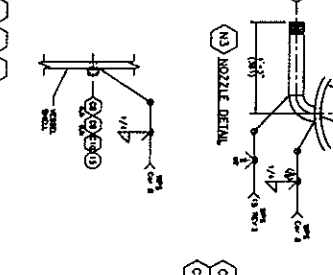
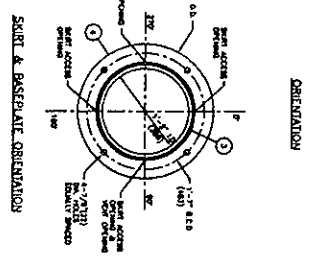
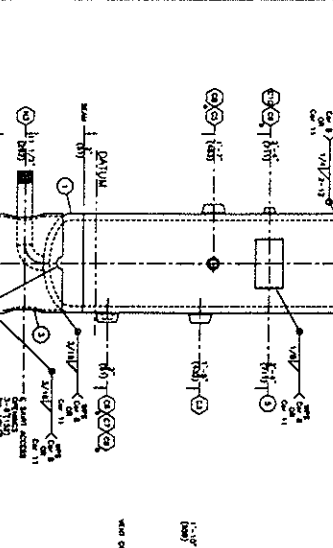
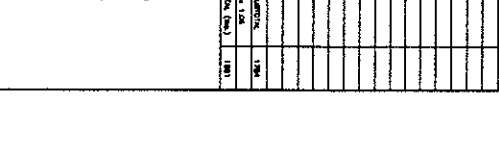
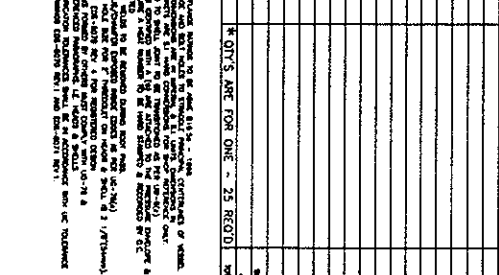
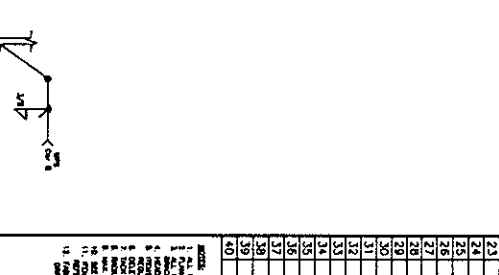
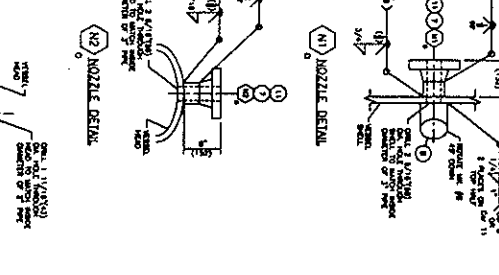
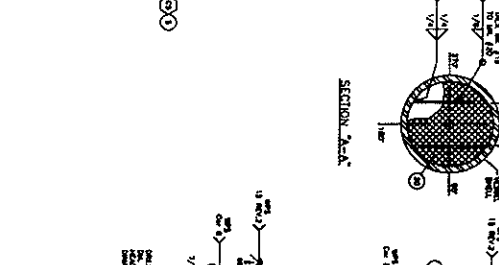
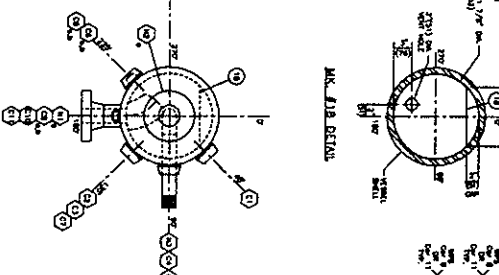
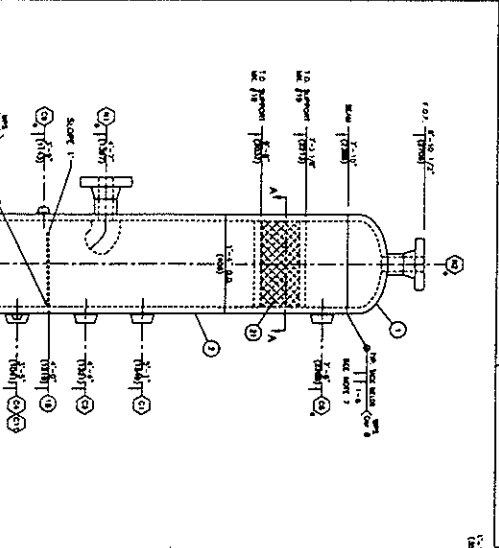
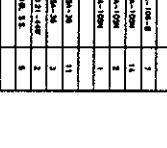
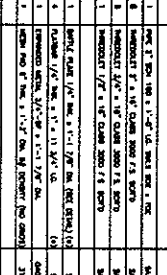
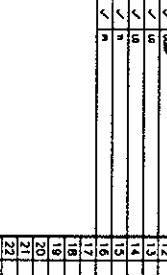
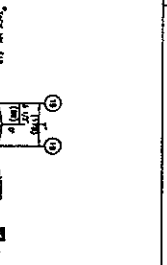
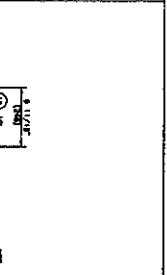
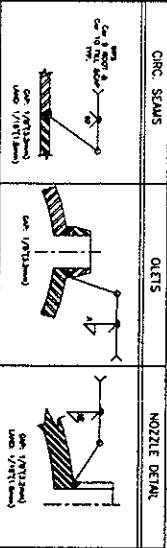
STEEL: _____
 WELDING: _____
 PAINTING AND INSULATION: _____

REGISTRATION

REGISTERED IN: _____
 REGISTERED NO.: _____
 REGISTERED DATE: _____

NOZZLE SCHEDULE

NO.	NOZZLE SIZE	NOZZLE TYPE	NO.	NO.	DESCRIPTION	MATERIAL	WT.
1	1/2"	1/2"	1	1			
2	3/4"	3/4"	2	2			
3	1"	1"	3	3			
4	1 1/4"	1 1/4"	4	4			
5	1 1/2"	1 1/2"	5	5			
6	1 3/4"	1 3/4"	6	6			
7	2"	2"	7	7			
8	2 1/4"	2 1/4"	8	8			
9	2 1/2"	2 1/2"	9	9			
10	2 3/4"	2 3/4"	10	10			
11	3"	3"	11	11			
12	3 1/4"	3 1/4"	12	12			
13	3 1/2"	3 1/2"	13	13			
14	3 3/4"	3 3/4"	14	14			
15	4"	4"	15	15			
16	4 1/4"	4 1/4"	16	16			
17	4 1/2"	4 1/2"	17	17			
18	4 3/4"	4 3/4"	18	18			
19	5"	5"	19	19			
20	5 1/4"	5 1/4"	20	20			
21	5 1/2"	5 1/2"	21	21			
22	5 3/4"	5 3/4"	22	22			
23	6"	6"	23	23			
24	6 1/4"	6 1/4"	24	24			
25	6 1/2"	6 1/2"	25	25			
26	6 3/4"	6 3/4"	26	26			
27	7"	7"	27	27			
28	7 1/4"	7 1/4"	28	28			
29	7 1/2"	7 1/2"	29	29			
30	7 3/4"	7 3/4"	30	30			
31	8"	8"	31	31			
32	8 1/4"	8 1/4"	32	32			
33	8 1/2"	8 1/2"	33	33			
34	8 3/4"	8 3/4"	34	34			
35	9"	9"	35	35			
36	9 1/4"	9 1/4"	36	36			
37	9 1/2"	9 1/2"	37	37			
38	9 3/4"	9 3/4"	38	38			
39	10"	10"	39	39			
40	10 1/4"	10 1/4"	40	40			



REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.

UNIVERSAL INDUSTRIES

SEPARATORS, OIL & GAS

VERTICAL SEPARATOR (1440 psi) - STATE 1
 1" - 4" (6000) CENTRAL ARRANGEMENT

DESIGN NO. _____
 DRAWING NO. _____
 SHEET NO. _____

DATE: _____

SCALE: _____

PROJECT: _____