



TEST CERTIFICATE

Page 1 of 2 Certificate No.: W136267 Transmission Date: 16/07/20

CERTIFICATION: Supplier

INSPECTION: Supplier

Customer: STEEL AND TUBE NEW ZEALAND LTD
PRIVATE BAG 30543
LOWER HUTT
LOWER HUTT
Sales Order No: Solds
Sales Order No: 716/07/2020
Printed on: 16/07/2020

Sampling undertaken by Liberty Primary Steel 20348
Approved Signatory - M. Bubicich
Chemical results as identified are from Bureau
Veritas Minerals Pty Ltd, Whyalla 0626
Approved Signatory - K. Barsby
Mechanical results as identified are from
Bureau Veritas Minerals Pty Ltd, Whyalla 0626

Approved Signatory - I. Harrison

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STEELMAKING: SPECIFICATION

Basic Oxygen - Slab Cast AS/NZS3679.1-300PLUS 150X150X12ANG SPECIFICATION:

ITEMS COVERED BY THIS TEST CERTIFICATE

геидги	Customer Order	Heat ON	meni oM
000.6	PO00172618	988169	6980
9.000	PO00172618	896169	6980
000.6	PO00172618	666169	6980
12,000	PO00172618	820769	0370
12,000	PO00172618	068969	0370

			14.	100.	7000.	0900.	£00.	₽ 000.	200.	100.	٦	9790	896169	6980
			ZÞ.	100.	7000.	9500.	£00.	3000.	100.	100.	٦	9790	988169	6980
												Гар	oN JinU	oN
		L	CEI	ΙZ	Ca	N	Λ	В	!I	qΝ	d/П	ATAN	Heat /	Item
400.	£00.	600.	100.	££0.	400.	410.	061.	74.1	210.	071.	- 1	9290	068969	0370
£00.	£00.	£00.	200.	820.	₽ 00.	E10.	002.	84.1	G10.	971.	٦	9290	870468	0750
200.	100.	300.	010.	820.	200.	SZ0.	06r.	94.1	p10.	391.	٦	9790	666169	6980
200.	100.	₽ 00.	100.	020.	100.	800.	061.	1.24	900.	861.	٦	9290	896169	6980
1 00.	100.	900.	١٥٥.	₽ 20.	r00.	310.	052.	44.1	410.	0۲۲.	٦	9790	988169	6980
			5765 1175611									Гар	oM JinU	oN
A	us	no	oM	Cr	!N	S	!S	иМ	Ь	0	d/П	ATAN	\ teaH	metl
	(x	sM=x ,ni	iM=n ,slui	mo I Isoi	E=Chem	=Total, C	T- ,əldulo	nct, -S=S	P=Prod	(L=Cast		mass	of element by	ercentage
												SIS	Y JANA JA	CHEWIC

and the second second				-	-	_		-			
ZÞ.	100.	1000.	pp00°	200.	⊅ 000.	200.	100.	٦	9790	068969	075
£43	100.	1000.	Z700.	200.	3000.	100.	100.	٦	9790	840769	0750
Z4.	100.	7000.	2900.	₽ 00.	⊅ 000.	200.	100.	٦	9790	666169	698
14.	100.	7000.	0900.	£00.	₽ 000°	200.	100.	٦	9790	896169	698
Z4.	100.	7000.	9900.	£00.	3000.	100.	100.	اد	9790	988169	698
									Lab	oN JinU	oN
LIO	17	PO	NI	۸	a l	11	UND	-1/7	MIMMI	/ IPALI	IIIOII

CF1=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15

MECHANICAL TESTING

AliznaT

35	067	345	06969	9790	068969	068969	0370
36	067	345	06969	9790	068969	068969	0370
33	930	355	79869	9790	870468	870468	0370
31	019	345	79869	9790	870468	840469	0370
35	067	340	81169	9790	666169	666169	6980
35	480	335	81169	9790	666169	666169	6980
34	920	345	81169	9790	896169	896169	6980
34	084	325	81169	9790	988169	988169	6980
%	MPa	MPa	Report	Lab	tinU	oN	oN
ELONGN	МЯ	НэЯ	Test	ATAN	Tested	Heat	Item

Yield Strength - determined in accordance with requirements of nominated product standard





TEST CERTIFICATE

Page 1 of 2 Certificate No.: W144607 Certificate No.: W144607

Customer: STEEL AND TUBE NEW ZEALAND LTD
PRIVATE BAG 30543
LOWER HUTT
COWER HUTT
Sales Order No. 28/10/2020
Sales Order No. 28/10/2020
Printed on: 28/10/2020

Sampling undertaken by Liberty Primary Steel 20348
Approved Signatory - M. Bubicich
Chemical results as identified are from Bureau
Veritas Minerals Pty Ltd, Whyalla 0626
Approved Signatory - K. Barsby
Mechanical results as identified are from

Bureau Veritas Minerals Pty Ltd, Whyalla 0626 Approved Signatory - I. Harrison

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INSPECTION: Supplier CERTIFICATION: Supplier

Basic Oxygen - Slab Cast
A S/NZS3679.1-300PLUS
150X150X12ANG

STECIFICATION: SPECIFICATION: PRODUCT:

ITEMS COVERED BY THIS TEST CERTIFICATE

4	12,000	PO00188558	688969	₽280
	12.000	PO00188558	888363	₽780
5 (4	12.000	PO00188558	188969	₽780
	000.6	PO00188558	076969	£780
33337470	000.6	PO00183694	888363	0724
Unit Identities	геидұр	Customer Order	Heat No	ltem No

CHEMICAL ANALYSIS Percentage of element by mass

₽780 600 100. 410 200 910 172 9290 688969 £00. 800. 250. **700** 97.1 ₩00 600 800 100. 030 **†00** p10. 200 34.1 910. 168 9290 888969 4780 ₽780 200 100 900 100. 620 600 210. 190 44.1 410. 891 9290 **188969 †00 †00** 100 120 200 100 200 CP. L PLO 19L 97,90 016969 £780 200 **⊅**00 003 800 100 030 **†00** 10 200 971 910 891 9290 888969 0724 Гзр Unit No ON Heat / Item uΜ **ATAN**

(L=Cast, P=Product, -S=Soluble, -T=Total, CF=Chemical Formula, n=Min, x=Max)

					The State of the S			-	-	The same of the sa	the state of the state of the state of	THE RESERVE OF THE PERSON NAMED IN
Ì	24.	100.	1000.	9900	200.	3000.	200.	١٥٥.	٦	9290	688969	⊅ ∠80
	74.	١٥٥.	1000.	⊅ ∠00.	200.	3000.	100.	100.	٦	9790	888969	₽780
	14.	100.	1000.	7 900.	200.	3000.	100.	100.	٦	9790	488969	4780
	14.	100.	1000.	3900.	200.	9000.	200.	100.	٦	9790	076969	£780
	ZÞ.	100.	1000.	₽ ∠00°	200.	3000.	r00.	r00.	٦	9790	888969	0724
										Гар	ON JinU	oN
	CEJ	٦Z	EQ.	N	^	8	iT	qN	d/П	ATAN	Heat /	Item

 $CE_1 = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

MECHANICAL TESTING

Fensile

36	067	340	06969	9790	688969	688969	4780
2.1	10000				THE RESERVE OF THE PARTY OF THE	Company of the Company	
32	067	340	06969	9290	688969	688969	₽780
30	009	345	06969	9290	888969	888969	4780
34	067	335	06969	9790	888969	888969	₽780
37	900	320	96969	9790	788868	788868	₽780
34	009	320	06969	9790	01/6969	076969	£780
33	900	320	06969	9290	01/6969	076969	6780
30	900	345	06969	9290	888969	888969	0724
34	067	335	06969	9790	888969	888969	0724
%	MPa	MPa	Report	Гар	tinU	oN	oN
EFONGN	МЯ	ReH	tesT	ATAN	Tested	Heat	Item

Yield Strength - determined in accordance with requirements of nominated product standard

2-01042

DITH AUSTRALIA PTY LTD

語 废 家 Customer 語 要 家 管 理 番 号 Customer's Control No. Shipper 地 MITSUI & CO., 4503004990

LTD.

Commodity 往文者照合番号 Ref. No. of Shipper HOT ROLLED STEEL ANGLES JC8V -UN00278

WITH EQUAL LEGS AS/NZS 3679.1-300:2016

Specification

裕

INSPECTION CERTIFICATE 核

JFE 条鍋 株式会社

JFE Bars & Shapes Corporation

11-3, Shinbashi 5-chome, Minato-ku, Tokyo 105-0004 Japan 社:〒105-0004 東京都港区新橋五丁目11番 3 号

証明書番号 Certificate No. 沿带又は工事都号 HEX-3251-01 2019-12-06

Project Name Ship's No. or プロジェクト名 Construction No.

契約番号 Contract No. SOXF708

	4 0582-A	4 0261-A		4 0582-A	4 0261-4		4 1109-A		3 1707-A	Heat No.	Bi .	温がいた。ロットは、かんと
SUB TOTAL TOTAL	004 150X150X12AS	004 150X150X12AS	SUB TOTAL	003 150X150X1ZAS	003 150X150X12AS	SUB TOTAL	002 150X150X10AS	SUB TOTAL	001 80X80X6. OAS		Hen AEBET Size	ry、番号 行番
	12.000	12,000		9,000	9.000		9.000		9.000		ENGTH (N)	¥
28	14	1-1	42	22	14	48	44 00	44	44	Quantity	夏 数	
9184 KGS	4592 11 18 60 262 129 10 9 2 22 3 3 26FL 320 460 36	4592 13 18 59 271926 10 14 4 22<5 \ 29FL 355 490 34		6888 11 18 60 262129 10 9 2 22<3 <3 26FL 320 460 36	344413 18 59 271926 10 14 4 22<5 <3 29FL 355 490 34	9456 KGS	9456 12 17 60 262326 10 12 3 21<5 <3 28FL 345 470 39		2908 14 19 62 272129 13 13 3 23<5 <3 SIFL 380 500 38	NXXX	T. T.Al Ced, 母先点,母妇 与免疫病,	5 级 点 Tensile Test
	ç,	G)		(1)	G)		G2		47	Visua 3 Ave.	Test 参 Lonergy Notch Notch	sions

(社) Ceq(1):C+Mn/6+Si/24,Ceq(2):C+Mn/6+Si/24+Ni/40+Cc/5+Mo/4+V/14,Ceq(3):C+Mn/6+Cu/40+Ni/15,Ceq(4):C+Mn/6+Cu/40+Ni/15,Ceq(5):C+Mn/6+Cu/40+Ni/15,Ceq(5):C+Mn/6+Cu/40+Ni/15,Ceq(5):C+Mn/6+Cu/40+Ni/15,Ceq(5):C+Mn/6+Cu/40+Ni/15,Ceq(5):C+Mn/6+Cu/40+Ni/15,Ceq(5):C+Mn/6+Cu/40+Ni/15,Ceq(5):C+Mn/6+Cu/40+Ni/15,Ceq(5):C+Mn/6+Cu/40+Ni/10+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Cu/40+Ni/10+Ni/10+Cu/40+Ni/10+Good,合格,*YR:Yield Ratio即伏比(%),UT:Ultrasonic Test,超音被漿陽試験, RA:Reduction of Area 被り(%), Normalized, 疫埠, QT: Quenched & Tempered,焼入一焼尿, NT: Normalized & Tempered,焼牛一焼尿, SR: Stress Relieved,応力除去, CR: Controlled Rolled,温度影響圧延,TMCP: Thermomechanically Controlled Process 熱加工影響 DG: Degassed,暖サス、Visual & Dimensions: 外央一寸法、G:

上記製品は検査の結果指定の規格に合格していることを証明いたします。

APPLICABLE SPECIFICATION WAS MADE BY ELECTRIC ARC FURNACE PROCESS AT JFE BARS & SHAPES CORP, HIMEJI WORKS AND TESTED AT JFE TECHNO-RESERCH CORPORATION, KEIHIN DIVISION WHICH HAS BEEN AUTHORIZED BY JAB AS AN ACCREDITED 3RD PARTY TESTING LABORATORY BASED ON INTERNATIONAL STANDARD ISO 17025. WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE TO THE

HIMEJI WORKS: 1280, Hosoe, Shikama-ku Himeji City, Hyogo Pref. 672-8064 Japan KASHIMA WORKS: 7, Minamihama, Kamisu City, Ibaraki Pref. 314-0111 Japan

Yuuki NAKASHIMA, MANAGER OF IS09001:2015 CertNo:0111 QA SEC, HIMEJI WORKS Certified by JICQA LID.

1 hopershine

品質管理責任者

JAB ACCREDITATION NO, OF JFE TECHNO-RESERCH CORP, KEIHIN DIVISION. ACCREDITATION NO, OF [RTL03320]

鹿岛製造所:〒314-0111 茨 城 県 神 栖 市 南 浜 7 番 姫路製造所:〒672-8064 兵庫県姫路市飾曆区細江1280番地