

Product: FabCOR Edge XP Diameter: .045" Shielding Gas: M20-ArC-10 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/13/2024

Certificate of Conformance For AWS D1.8/D1.8M, Seismic Supplement

This is to certify that the product named herein is of the same classification, manufacturing process, and material requirements as the material used for the tests completed on the date shown, the results of which are recorded below. All tests required by the code or specifications were performed at that time and the material tested met all requirements. The product was manufactured and supplied by the Quality Management System of Hobart Brothers, which meets the requirements of ISO 9001:2015, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings	High Heat Inpu	It Low Heat Input		Lot- # D670911005	AWS D	1.8	High Heat Input	Low Heat Input
	78.8 kJ/in	27.8 kJ/in		Mechanical Properties	Requirem	nents	78.8 kJ/in	27.8 kJ/in
Voltage	27	25.5		Test Reference #			PE2254	PE2257
Current (amps)	350	280						
WFS (ipm)	575	385						
Travel Speed (ipm)	7.2	15.4		Tensile Strength (psi)	70,00	00	81,000	88,600
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,00	00	65,900	77,400
# of passes	8	16		Elongation (%)	22		27	26
# of layers	4	6		Average Charpy V-notch				
Preheat Temp. °F	300+/-25	R1 200±/ 25		Impact Properties ft•lbs @	40		97	92
Interpass Temp. *F	1G	200+/-23		+70 °F				
vveid Position	10	10						
Test Settings	High Heat Inpu	It Low Heat Input		Lot- # F62327	AWS D	1.8	High Heat Input	Low Heat Input
	81.1 kJ/in	29.8 kJ/in	┥	Mechanical Properties	Requirem	lents	81.1 kJ/in	29.8 kJ/in
Voltage	27	25.5		Test Reference #			PE2212	PE2210
Current (amps)	350	280						
WFS (ipm)	560	385		T H O (H (H)	70.00	~~	77 000	04 500
I ravel Speed (ipm)	7.0 3///"	3///"		Viold Strength (psi)	70,00	00	77,600	84,500
	6	16		Flongation (%)	22	00	30	72,300
# of lavers	4	6		Average Charpy V-notch	22		50	20
Preheat Temp. °F	300+/-25	RT		Impact Properties ft•lbs @	40		80	68
Interpass Temp. °F	500+/-50	200+/-25		+70 °F				
Weld Position	1G	1G						
Test Settings	High Heat Inpu	It Low Heat Input		Lot- # J90215	AWS D	18	High Heat Input	Low Heat Input
	79.5 kJ/in	27.4 kJ/in		Mechanical Properties	Requirem	nents	79.5 kJ/in	27.4 kJ/in
Voltage	28	28	1	Test Reference #			PE8132	PE2195
Current (amps)	300	265						
WFS (ipm)	425	380						
Travel Speed (ipm)	6.3	16.2		Tensile Strength (psi)	70,00	00	77,700	90,400
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,00	00	60,000	80,200
# of passes	7	18		Elongation (%)	22		31	25
# of layers	4 200+/ 25	/ DT		Average Charpy V-notch	10			70
Preheat Temp. ^o F	500+/-25	200+/-25			40		98	76
Mold Resition	1G	2001/-23 1G		+70 °F				
	10	10						
	Dif	fusible Hydrogen - Ta	ested	in accordance with AWS A5 18/A5 1	8M. Clar	use 14	5	
		& Extended Ex	rposu	re - in accordance with AWS D1.8/D	1.8M		-	
Condition		Lot - #		Test Reference #			Average (ml	(100g)
As Received		190215	HB7504 2 (ml/100g)			a)		
		050210					2 (111) 188	9/

The information contained or otherwise referenced herein is presented without guarantee or warranty. Hobart Brothers LLC expressly disclaims any liability incurred from any reliance thereon. Data for the above-supplied product are those obtained during the welding process and tested in accordance with the above specification with electrodes of the same manufacturing processes and material requirements. All tests for the above classification were performed satisfactorily. No data is to be construed as a recommendation for any welding condition or technique not controlled by Hobart Brothers. Refer to the Hobart Brothers website at www.hobartbrothers.com for current Safety Data Sheets ("SDS").

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James Owens, Quality Assurance Specialist



Product: FabCOR Edge XP Diameter: .045" Shielding Gas: M21-ArC-25 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/11/2024

Certificate of Conformance For AWS D1.8/D1.8M, Seismic Supplement

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Test Settings	High Heat Input	Low Heat Input		Lot- # D670911005	AWS D1	1.8	High Heat Input	Low Heat Input
	81.6 kJ/in	27.5 kJ/in		Mechanical Properties	Requirem	ents	81.6 kJ/in	27.5 kJ/in
Voltage	28	26		Test Reference #			PE2252	PE2261
Current (amps)	340	270						
WFS (ipm)	560	400						
Travel Speed (ipm)	7.0	15.3		Tensile Strength (psi)	70,00	00	79,100	85,500
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,00	00	62,600	74,100
# of passes	8	16		Elongation (%)	22		29	26
# of layers	4	0 DT		Average Charpy V-notch	40		00	70
Preheat Temp. *	500+/-25 500+/-50	200+/-25			40		88	78
Weld Position	1G	1G		+70 F				
				L				
l est Settings	High Heat Input	Low Heat Input		Lot- # F62327	AWS D1 Requirem	1.8 ents	High Heat Input	Low Heat Input
	62.5 KJ/IN	29.2 kJ/in	-				02.3 KJ/IN	29.2 KJ/IN
Voltage	28	26		lest Reference #			PE2211	PE2209
Current (amps)	350 560	275						
VVFS (Ipm)	7 14	14.83		Toncilo Strongth (pci)	70.00	חר	76 200	82 200
Stick Out	3/4"	3/4"		Vield Strength (psi)	58.00		59 900	71 500
# of passes	6	18		Flongation (%)	22		29	27
# of lavers	4	6		Average Charpy V-notch				
Preheat Temp. °F	300+/-25	RT		Impact Properties ft•lbs @	40		71	54
Interpass Temp. °F	500+/-50	200+/-25		+70 °F				
Weld Position	1G	1G						
Test Settings	High Heat Input	Low Heat Input		Lot- # J90215	AWS D1	1.8	High Heat Input	Low Heat Input
	81.75 kJ/in	28.4 kJ/in		Mechanical Properties	Requirem	ents	81.75 kJ/in	28.4 kJ/in
Voltage	29	29		Test Reference #			PE7889	PE8118
Current (amps)	300	265						
WFS (ipm)	425	380						
Travel Speed (ipm)	6.4	16.2		Tensile Strength (psi)	70,00	00	73,800	87,100
Stick Out	3/4	3/4 18		Flongetion (%)	58,00	00	59,500	74,800
# of passes	7 4	7		Elongalion (%)	22		32	25
Preheat Temp ^o F	300+/-25	RT		Impact Properties ft•lbs @	40		90	76
Interpass Temp. °F	500+/-50	200+/-25		+70 °F	10		00	10
Weld Position	1G	1G						
	Diffu	sible Hydrogen - T & Extended Ex	ested post	l in accordance with AWS A5.18/A5.1 Ire - in accordance with AWS D1.8/D	8M, Clau 1.8M	ise 15	5	
Condition		Lot - #	-	Test Reference #			Average (ml	/100g)
	1	.190215		HB7503	1 (ml/100a)			
AS Received	•	000210					. (9/
7 Day Exposu	re	J90215		HB7526			2 (ml/100	g)

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James Owens, Quality Assurance Specialist



Product: FabCOR Edge XP Diameter: .052" Shielding Gas: M20-ArC-10 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/26/2024

Certificate of Conformance For AWS D1.8/D1.8M, Seismic Supplement

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Test Settings	High Heat Input	Low Heat Input	Lot	- # F624251201	AWS D1.8	High Heat Input	Low Heat Input
	80.4 kJ/in	28.2 kJ/in		Mechanical Properties	Requirements	80.4 kJ/in	28.2 kJ/in
Voltage	29.5	26		Test Reference #		PE2262	PE2253
Current (amps)	350	275					
WFS (ipm)	415	265					
Travel Speed (ipm)	7.7	15.2		Tensile Strength (psi)	70,000	75,900	83,300
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,000	59,800	71,800
# of passes	6	16		Elongation (%)	22	31	26
# of layers	300±/ 25			Average Charpy V-notch	40	100	70
Preneat Temp. *F	500+/-20	200+/-25	· · ·		40	103	70
Weld Position	1G	1G		170 1			
	-	_					
Toot Cottings		Low Heat Innut		# D67040400004		Link Loot Innut	Low Heat Innut
Test Settings	79.3 k l/in	29 / k l/in	LO	Mechanical Properties	AWS D1.8 Requirements	79.3 k l/in	20 / k l/in
	79.3 KJ/III	29.4 KJ/III				79.3 KJ/III	29.4 KJ/III
Voltage	27	25		Test Reference #		PE2229	FLZZZI
Current (amps)	375 420	275					
Travel Speed (ipm)	7 68	14 1		Tensile Strength (nsi)	70 000	76 100	85 700
Stick Out	3/4"	3/4"		Yield Strength (psi)	58 000	61 500	75 100
# of passes	7	17		Elongation (%)	22	33	26
# of layers	4	6		Average Charpy V-notch			-
Preheat Temp. ºF	300+/-25	RT	1	mpact Properties ft•lbs @	40	107	82
Interpass Temp. °F	500+/-50	200+/-25		+70 °F			
Weld Position	1G	1G					
Test Settings	High Heat Input	Low Heat Input	Lot	- # H94483	AWS D1.8	High Heat Input	Low Heat Input
	79.1 kJ/in	27.9 kJ/in		Mechanical Properties	Requirements	79.1 kJ/in	27.9 kJ/in
Voltage	27	26		Test Reference #		PE8190	PE8182
Current (amps)	375	275					
WFS (ipm)	415	275					
Travel Speed (ipm)	7.85	15.3		Tensile Strength (psi)	70,000	79,500	88,100
Ctick Out		4 //					77 3737
	3/4	10		Yield Strength (psi)	58,000	63,800	77,300
# of passes	3/4 7 4	18		Yield Strength (psi) Elongation (%)	58,000 22	63,800 31	27
# of passes # of layers Preheat Temp °F	3/4 7 4 300+/-25	18 7 RT		Yield Strength (psi) Elongation (%) Average Charpy V-notch mnact Properties fields @	58,000 22 40	63,800 31 77	27 48
# of passes # of layers Preheat Temp. %	3/4 7 4 300+/-25 500+/-50	18 7 RT 200+/-25		Yield Strength (psi) Elongation (%) Average Charpy V-notch mpact Properties ft•lbs @ +70 °F	58,000 22 40	63,800 31 77	27 48
# of passes # of layers Preheat Temp. °F Interpass Temp. °F Weld Position	3/4 7 4 300+/-25 500+/-50 1G	18 7 RT 200+/-25 1G	1	Yield Strength (psi) Elongation (%) Average Charpy V-notch mpact Properties ft•lbs @ +70 ºF	58,000 22 40	63,800 31 77	48
# of passes # of layers Preheat Temp. ºF Interpass Temp. ºF Weld Position	3/4 7 4 300+/-25 500+/-50 1G	18 7 RT 200+/-25 1G	1	Yield Strength (psi) Elongation (%) Average Charpy V-notch mpact Properties ft•lbs @ +70 °F	58,000 22 40	63,800 31 77	48
# of passes # of layers Preheat Temp. °F Interpass Temp. °F Weld Position	3/4 7 4 300+/-25 500+/-50 1G	18 7 RT 200+/-25 1G usible Hydrogen - T & Extended Ex	ested in a posure -	Yield Strength (psi) Elongation (%) Average Charpy V-notch mpact Properties ft•lbs @ +70 °F ccordance with AWS A5.18/A5.1	58,000 22 40 8M, Clause 1.8M	63,800 31 77	48
# of passes # of layers Preheat Temp. °F Interpass Temp. °F Weld Position	3/4 7 4 300+/-25 500+/-50 1G Diff	18 7 RT 200+/-25 1G usible Hydrogen - To & Extended Ex Lot - #	ested in a posure -	Yield Strength (psi) Elongation (%) Average Charpy V-notch mpact Properties ft•lbs @ +70 °F ccordance with AWS A5.18/A5.1 in accordance with AWS D1.8/D Test Reference #	58,000 22 40 8M, Clause 1.8M	63,800 31 77 15 Average (ml	/7,300 27 48 /100g)
# of passes # of layers Preheat Temp. °F Interpass Temp. °F Weld Position	3/4 7 4 300+/-25 500+/-50 1G Diff	18 7 RT 200+/-25 1G usible Hydrogen - T <u>& Extended Ex</u> Lot - # H94483	ested in a posure -	Yield Strength (psi) Elongation (%) Average Charpy V-notch mpact Properties ft•lbs @ +70 °F ccordance with AWS A5.18/A5.1 in accordance with AWS D1.8/D Test Reference # HB7492	58,000 22 40 8M, Clause 1.8M	63,800 31 77 15 Average (ml 4 (ml/100	/100g)
# of passes # of layers Preheat Temp. °F Interpass Temp. °F Weld Position Condition As Received 7 Day Exposu	3/4 7 4 300+/-25 500+/-50 1G Diff	13/4 18 7 RT 200+/-25 1G asible Hydrogen - To & Extended Ex Lot - # H94483 H94483	ested in a posure -	Yield Strength (psi) Elongation (%) Average Charpy V-notch mpact Properties ft•lbs @ +70 °F ccordance with AWS A5.18/A5.1 in accordance with AWS D1.8/D Test Reference # HB7492 HB7527	58,000 22 40 8M, Clause 1.8M	63,800 31 77 15 Average (ml 4 (ml/100 3 (ml/100	/100g)

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James Owens, Quality Assurance Specialist



Product: FabCOR Edge XP Diameter: .052" Shielding Gas: M20-ArC-15 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/26/2024

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Test Settings	High Heat Input	Low Heat Input		Lot- # F62931	AWS D	1.8	High Heat Input	Low Heat Input
	80.2 kJ/in	29.6 kJ/in		Mechanical Properties	Requirem	ients	80.2 kJ/in	29.6 kJ/in
Voltage	27.5	25.5		Test Reference #			PE2286	PE2287
Current (amps)	375	275						
WFS (ipm)	420	270						
Travel Speed (ipm)	1.12	14.34		Tensile Strength (psi)	70,00	00	72,500	80,400
Stick Out	3/4	3/4		Yield Strength (psi)	58,00	00	58,500	68,600
# of passes	1	6		Elongation (%)	22		32	27
# of layers	300+/-25	RT		Average Charpy V-holdh	40		9.4	64
Internass Temp ^o F	500+/-50	200+/-25		+70 °F	40		04	04
Weld Position	1G	1G						
Test Settings	High Heat Input	Low Heat Input		Lot- # D670121202031			High Heat Input	Low Heat Input
	80.0 kJ/in	29.2 kJ/in		Mechanical Properties	AWS D Requirem	1.8 ients	80.0 kJ/in	29.2 kJ/in
Valtaria	27.5	25.5	t t	Test Reference #			PF2276	PE2275
Voltage	375	25.5	Ŀŀ				1 2270	
WES (inm)	420	275						
Travel Speed (ipm)	7.74	14.47		Tensile Strength (psi)	70.00	00	75.200	82.600
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,00	00	59,500	70,700
# of passes	7	18		Elongation (%)	22		30	27
# of layers	4	6		Average Charpy V-notch				
Preheat Temp. °F	300+/-25	RI		Impact Properties ft•lbs @	40		95	81
Interpass I emp. %	500+/-50 1C	200+/-25		+70 °F				
vveid Position	10	10						
To at Quttin an				1 -4 # 1104400	1		Link Heat have	
lest Settings	79.5 k l/im	20 k Vin		Lot- # H94483	AWS D Requirem	1.8 ients	70 5 k Vin	20 k Vin
	79.5 kJ/m	30 kJ/m	ł				79.5 KJ/III	
Voltage	28	27	ŀŀ	Test Reference #			PE8194	FE0190
Current (amps)	420	275						
Travel Speed (ipm)	7.1	14.8		Tensile Strength (psi)	70.00	າດ	78 200	85 000
Stick Out	3/4"	3/4"		Yield Strength (psi)	58.00	00	61,700	73,400
# of passes	6	18		Elongation (%)	22		31	28
# of layers	4	7		Average Charpy V-notch				
Preheat Temp. °F	300+/-25	RT		Impact Properties ft•lbs @	40		87	75
Interpass Temp. °F	500+/-50	200+/-25		+70 °F				
Weld Position	16	16						
	D:ff.	sible Hydrogon T	ostor	in accordance with AWS A5 19/A5 1	8M Clev	160 14		
	Din	& Extended Ex	csteu (posu	re - in accordance with AWS D1.8/D	1.8M	150 1.	5	
Condition		Lot - #		Test Reference #			Average (ml	′100g)
As Received	1	H94483		HB7490			4 (ml/100	g)

James Owens, Quality Assurance Specialist



Product: FabCOR Edge XP Diameter: .052" Shielding Gas: M21-ArC-25 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/26/2024

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Test Settings	High Heat Inp	out Low Heat Input		Lot- # D670121201031	AWS D	1.8	High Heat Input	Low Heat Input
	81.2 kJ/in	29.5 kJ/in		Mechanical Properties	Requiren	nents	81.2 kJ/in	29.5 kJ/in
Voltage	29.5	27		Test Reference #			PE2228	PE2226
Current (amps)	350	275						
WFS (ipm)	410	270						
Travel Speed (ipm)	7.65	15.2		Tensile Strength (psi)	70,0	00	71,800	82,900
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,0	00	57,600	72,300
# of passes	7	17		Elongation (%)	22	2	32	26
# of layers	4	6		Average Charpy V-notch				
Preheat Temp. °F	300+/-25	RI 200 / 25		Impact Properties ft•lbs @	40)	102	71
Interpass Temp. *	500+/-50 1C	200+/-25		+70 °F				
Weld Position	10	10						
Test Settings	High Heat Inp	out Low Heat Input		Lot- # F624251201	AWS D	01.8	High Heat Input	Low Heat Input
	78.4 kJ/in	28.7 kJ/in		Mechanical Properties	Requiren	nents	78.4 kJ/in	28.7 kJ/in
Voltage	29.5	27		Test Reference #			PE2200	PE2198
Current (amps)	350	275						
WFS (ipm)	410	265						
Travel Speed (ipm)	7.9	15.5		Tensile Strength (psi)	70,0	00	72,600	81,200
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,0	00	58,100	69,800
# of passes	6	17		Elongation (%)	22		31	26
# of layers	3 200+/ 25	0 DT		Average Charpy V-notch	40		04	F 4
Preheat Temp. %	500+/-23	200+/-25			40)	81	51
Mold Desition	1G	2001/-23 1G		+70 °F				
To at Quttin an	Likeb Heet lee			1 -4 # 1104400	л		I link Heat have	
Test Settings				LOI- # H94463	AWS D Requiren	01.8 nents		20 4 k Vin
	01.5 kJ/m	29.4 KJ/IN	-	Test Deference #			01.3 KJ/III	23.4 KJ/III
Voltage	29	27		Test Relefence #			PE0209	FL0220
Current (amps)	350	275						
VVFS (IPM)	425	203		Toncilo Strongth (psi)	70.0	00	76 700	82 800
Stick Out	3/4"	3/4"		Vield Strength (psi)	70,0 58.0	00	60,900	69,800
# of passes	6	17		Flongation (%)	22	00	30	29
# of lavers	4	6		Average Charpy V-notch		•	00	20
Preheat Temp. °F	300+/-25	RT		Impact Properties ft•lbs @	40)	91	74
Interpass Temp. °F	500+/-50	200+/-25		+70 °F	_		-	
Weld Position	1G	1G						
	D	ffusible Hydrogen - T & Extended Fy	ested i	in accordance with AWS A5.18/A5.1	8M, Clai 1 8M	use 15	5	
Condition		Lot - #	posul	Test Reference #	1,0171		Average (ml	'100g)
As Received	1	H94483		HB7493			3 (ml/100	g)
7 Day Exposu	re	H94483		HB7529			3 (ml/100	g)

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James Owens, Quality Assurance Specialist



Product: FabCOR Edge XP Diameter: .052" Shielding Gas: Ozoline C8 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/26/2024

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l est Settings	High Heat in	put Low Heat Input	Lot- #	F64///	AWS D	1.8	High Heat input	Low Heat Input
	77.3 kJ/ir	n 29.5 kJ/in		Mechanical Properties	Requiren	nents	77.3 kJ/in	29.5 kJ/in
Voltage	29	26		Test Reference #			PE3175	PE3176
Current (amps) WFS (ipm) Travel Speed (ipm) Stick Out # of passes # of layers Preheat Temp. °F Interpass Temp. °F Weld Position	350 410 7.89 1" 7 4 300+/-2! 500+/-50 1G	300 300 15.91 3/4" 15 6 75 RT 200+/-25 1G	٦ Av Imp	Fensile Strength (psi) Yield Strength (psi) Elongation (%) rerage Charpy V-notch pact Properties ft•lbs @ +70 °F	70,00 58,00 22 40	00	73,000 58,000 30 56	85,000 74,000 26 68
Test Settings	High Heat In	put Low Heat Input	Lot-#	F65403	A14/0 D	4.0	High Heat Input	Low Heat Input
, , , , , , , , , , , , , , , , , , ,	78.5 kJ/ir	n 29.7 kJ/in		Mechanical Properties	Requiren	nents	78.5 kJ/in	29.7 kJ/in
Voltage	29	26		Test Reference #			PE3189	PE3190
Current (amps) WFS (ipm) Travel Speed (ipm) Stick Out # of passes # of layers Preheat Temp. °F Interpass Temp. °F Weld Position	350 410 7.92 1" 7 4 300+/-2! 500+/-50 1G	300 300 15.83 1" 15 6 5 RT 0 200+/-25 1G	٦ Av Imp	Tensile Strength (psi) Yield Strength (psi) Elongation (%) rerage Charpy V-notch pact Properties ft•lbs @ +70 °F	70,00 58,00 22 40	00	76,000 60,000 33 65	88,000 77,000 26 88
Test Settings	High Heat In	put Low Heat Input	Lot- #	H94483	AWS D	1.8	High Heat Input	Low Heat Input
	78.7 kJ/ir	n 30.9 kJ/in		Mechanical Properties	Requiren	nents	78.7 kJ/in	30.9 kJ/in
Voltage	28	26		Test Reference #			PE8226	PE8227
Current (amps) WFS (ipm) Travel Speed (ipm) Stick Out # of passes # of layers Preheat Temp. °F Interpass Temp. °F Weld Position	350 410 7.4 3/4" 7 4 300+/-2! 500+/-50 1G	300 340 15.1 3/4" 15 6 5 RT 0 200+/-25 1G	۲ Av Imp	Fensile Strength (psi) Yield Strength (psi) Elongation (%) rerage Charpy V-notch pact Properties ft•lbs @ +70 °F	70,00 58,00 22 40	00	80,400 64,100 31 77	88,300 75,200 26 80
	E)iffusible Hydrogen - T	ested in acc	ordance with AWS A5.18/A5.1	8M, Clau	use 15	5	
Condition		& Extended Ex	posure - in	accordance with AWS D1.8/D	1.8M		Average (m)	/100a)
As Receiver	1	H94483		HB7502			3 (ml/100	
7 Day Exposu	re	H94483		HB7530			4 (ml/100)g)
				1				

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Product: FabCOR Edge XP Diameter: 1/16" Shielding Gas: M20-ArC-10 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/19/2024

Certificate of Conformance For AWS D1.8/D1.8M, Seismic Supplement

This is to certify that the product named herein is of the same classification, manufacturing process, and material requirements as the material used for the tests completed on the date shown, the results of which are recorded below. All tests required by the code or specifications were performed at that time and the material tested met all requirements. The product was manufactured and supplied by the Quality Management System of Hobart Brothers, which meets the requirements of ISO 9001:2015, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings	High Heat Input	Low Heat Input		Lot- # J60188	AWS D1.	.8	High Heat Input	Low Heat Input
	79.7 kJ/in	31.4 kJ/in		Mechanical Properties	Requireme	ents	79.7 kJ/in	31.4 kJ/in
Voltage	26	26		Test Reference #			PE8170	PE8169
Current (amps)	375	300						
WFS (ipm)	295	220		T H O (H (N)	70.00	•	70.000	00.400
Travel Speed (ipm)	7.3 2//"	14.9		I ensile Strength (psi)	70,00	0	78,200	86,400
Stick Out	3/4 7	16		Flongation (%)	58,00	U	22	7,100
# of lavers	4	6		Average Charpy V-notch	22		52	21
Preheat Temp. °F	300+/-25	RT		Impact Properties ft•lbs @	40		97	84
Interpass Temp. °F	500+/-50	200+/-25		+70 °F				
Weld Position	1G	1G						
Test Settings	High Heat Input	Low Heat Input		Lot- # F623171301	AWS D1.	.8	High Heat Input	Low Heat Input
	80.3 kJ/in	30.8 kJ/in		Mechanical Properties	Requireme	ents	80.3 kJ/in	30.8 kJ/in
Voltage	26.5	30		Test Reference #			PE2339	PE2299
Current (amps)	375	350						
WFS (ipm)	295	200		T H O (H (N)	70.00	•	70.400	70.400
Travel Speed (ipm)	7.45 3//"	15.0 7/8"		I ensile Strength (psi)	70,00	0	73,400	79,400
Slick Oul # of passes	7	16		Flongation (%)	22	U	30,000	07,000 27
# of lavers	4	7		Average Charpy V-notch	22		51	21
Preheat Temp. °F	300+/-25	RT		Impact Properties ft•lbs @	40		80	67
Interpass Temp. °F	500+/-50	200+/-25		+70 °F				
Weld Position	1G	1G						
Test Settings	High Heat Input	Low Heat Input		Lot- # F62351	AWS D1.	.8	High Heat Input	Low Heat Input
	81.4 kJ/in	29.8 kJ/in		Mechanical Properties	Requireme	ents	81.4 kJ/in	29.8 kJ/in
Voltage	26.5	26		Test Reference #			PE2387	PE2372
Current (amps)	375	300						
WFS (ipm)	295	220		T H O (H (H)	70.00	~	75 000	05 400
Travel Speed (ipm)	7.30 1"	10.7		I ensile Strength (psi)	70,00	0	75,300	85,400
# of passes	7	17		Flongation (%)	22	U	30	73,800 27
# of lavers	4	6		Average Charpy V-notch				
Preheat Temp. °F	300+/-25	RT		Impact Properties ft•lbs @	40		85	79
Interpass Temp. °F	500+/-50	200+/-25		+70 °F				
Weld Position		10						
	1G	1G						
	1G	1G				15		
	1G Diffu	1G sible Hydrogen - To & Extended Ex	estec posi	l in accordance with AWS A5.18/A5.1 ire - in accordance with AWS D1.8/D	8M, Claus 1.8M	se 15		
Condition	1G Diffu	1G sible Hydrogen - To & Extended Ex Lot - #	estec posi	I in accordance with AWS A5.18/A5.1 Ire - in accordance with AWS D1.8/D Test Reference #	8M, Claus 1.8M	se 15	Average (ml	/100g)
Condition As Received	1G Diffus	1G sible Hydrogen - To & Extended Ex Lot - # J60188	estec	l in accordance with AWS A5.18/A5.13 ure - in accordance with AWS D1.8/D Test Reference # HB7470	8M, Claus 1.8M	se 15	Average (ml / 4 (ml/100	(100g) Ig)

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James Owens, Quality Assurance Specialist



Product: FabCOR Edge XP Diameter: 1/16" Shielding Gas: M20-ArC-15 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/19/2024

Certificate of Conformance For AWS D1.8/D1.8M, Seismic Supplement

This is to certify that the product named herein is of the same classification, manufacturing process, and material requirements as the material used for the tests completed on the date shown, the results of which are recorded below. All tests required by the code or specifications were performed at that time and the material tested met all requirements. The product was manufactured and supplied by the Quality Management System of Hobart Brothers, which meets the requirements of ISO 9001:2015, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings	High Heat Inp	ut Low Heat Input		Lot- # J60188	AWS D1	.8	High Heat Input	Low Heat Input
	80.3 kJ/in	29.3 kJ/in		Mechanical Properties	Requireme	ents	80.3 kJ/in	29.3 kJ/in
Voltage	27	27		Test Reference #			PE8152	PE8147
Current (amps)	350	275						
WFS (ipm)	275	190						
Travel Speed (ipm)	7	14.9		Tensile Strength (psi)	70,00	0	76,500	82,700
Stick Out	3/4″	3/4″		Yield Strength (psi)	58,00	0	60,900	71,400
# of passes	1	18		Elongation (%)	22		34	27
# of layers	300+/-25	, RT		Impact Properties ftelbs	40		04	88
Internass Temp ^o F	500+/-50	200+/-25		+70 °F	40		54	00
Weld Position	1G	1G						
Test Settings	High Heat Inn	ut Low Heat Input		Lot- # F623171301			High Heat Input	Low Heat Input
	80.6 kJ/in	30.6 kJ/in		Mechanical Properties	AWS D1 Requireme	.8 ents	80.6 kJ/in	30.6 kJ/in
Valtara	27	26.5		Test Reference #			PF2344	PE2358
Current (amps)	360	285						
WFS (ipm)	275	191						
Travel Speed (ipm)	7.24	14.85		Tensile Strength (psi)	70,00	0	72,400	78,600
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,00	00	58,600	65,700
# of passes	7	17		Elongation (%)	22		32	27
# of layers	4 200±/ 25	6 PT		Average Charpy V-notch	10		74	07
Preheat Temp. ^o F	500+/-25	200+/-25		Impact Properties π•ibs @ +70 ⁰⊑	40		74	87
Weld Position	1G	1G		+70 F				
	_	-						
Test Settings	High Heat Inn	ut I ow Heat Input		Lot- # E62351	1		High Heat Input	Low Heat Input
Toot oottingo	78.0 kJ/in	30.3 kJ/in		Mechanical Properties	AWS D1 Requireme	.8 ents	78.0 kJ/in	30.3 kJ/in
Valtaria	27	26.5		Test Reference #			PE2385	PE2384
Current (amps)	360	285	ŀ				1 22000	
WFS (ipm)	275	191						
Travel Speed (ipm)	7.52	15.0		Tensile Strength (psi)	70,00	0	73,600	80,300
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,00	0	59,400	68,900
# of passes	7	17		Elongation (%)	22		30	27
# of layers	4 200±/ 25	6 DT		Average Charpy V-notch	10			00
Preheat Temp. *	500+/-25	200+/-25			40		()	82
Weld Position	1G	2001/-20 1G		+70 °F				
	10	10						
	Di	ffusible Hydrogen - To	ested	in accordance with AWS A5.18/A5.1	8M, Clau	se 15	5	-
		& Extended Ex	posu	re - in accordance with AWS D1.8/D	1.8M			
Condition		Lot - #		Test Reference #			Average (ml	/100g)
As Received	1	J60188		HB7469			4 (ml/100)g)
7 Day Exposu	re	J60188		HB7509			5 (ml/100)g)

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James Owens, Quality Assurance Specialist



Product: FabCOR Edge XP Diameter: 1/16" Shielding Gas: M21-ArC-25 Current/Polarity: DCEP Classification: E70C-6M H4 Specification: AWS A5.18/A5.18M:2017 Test Completed: 6/19/2024

Certificate of Conformance For AWS D1.8/D1.8M, Seismic Supplement

This is to certify that the product named herein is of the same classification, manufacturing process, and material requirements as the material used for the tests completed on the date shown, the results of which are recorded below. All tests required by the code or specifications were performed at that time and the material tested met all requirements. The product was manufactured and supplied by the Quality Management System of Hobart Brothers, which meets the requirements of ISO 9001:2015, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings	High Heat Inp	ut Low Heat Input	w Heat Input Lot- # J60188		AWS D1.8	High Heat Input	Low Heat Input
	78.1 kJ/in	29.7 kJ/in		Mechanical Properties	Requirements	³ 78.1 kJ/in	29.7 kJ/in
Voltage	28	28		Test Reference #		PE8156	PE8163
Current (amps)	350	275					
WFS (ipm)	275	200					
Travel Speed (ipm)	6.3	15.5		Tensile Strength (psi)	70,000	74,700	81,000
Stick Out	3/4"	3/4"		Yield Strength (psi)	58,000	58,500	67,300
# of passes	7	18		Elongation (%)	22	33	28
# of layers	4			Average Charpy V-notch	10	07	00
Preneat Temp. °F	500+/-25	200+/-25			40	87	80
Wold Position	1G	1G		+70 F			
		. •					
					1		
Test Settings	High Heat Inp	Ut Low Heat Input		Lot- # +623171301	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	79.9 kJ/in	30.5 kJ/in		Mechanical Properties	Requirement	/9.9 kJ/in	30.5 kJ/in
Voltage	28	26.5		lest Reference #		PE2346	PE2352
Current (amps)	350	275					
WFS (ipm)	200 7 37	190		Tapaila Strangth (pai)	70.000	71 200	91 400
Stick Out	3/4"	3/4"		Vield Strength (psi)	70,000 58,000	71,200	68 600
# of passes	7	18		Flongation (%)	22	33	26
# of lavers	4	6		Average Charpy V-notch		00	20
Preheat Temp. °F	300+/-25	RT		Impact Properties ft•lbs @	40	65	74
Interpass Temp. °F	500+/-50	200+/-25		+70 °F			
Weld Position	1G	1G					
Test Settings	High Heat Inp	ut Low Heat Input	L	Lot- # F62351	AWS D1.8	High Heat Input	Low Heat Input
	81.8 kJ/in	29.8 kJ/in		Mechanical Properties	Requirements	⁶ 81.8 kJ/in	29.8 kJ/in
Voltage	28	26.5		Test Reference #		PE2381	PE2388
Current (amps)	350	285					
WFS (ipm)	255	191					
Travel Speed (ipm)	7.2	14.73		Tensile Strength (psi)	70,000	71,200	80,700
Stick Out	7/8"	3/4"		Yield Strength (psi)	58,000	58,100	69,600
# of passes	1	17		Elongation (%)	22	33	26
# of layers	4 300+/-25	0 RT		Average Charpy V-notch	40	0.9	74
Preneat Temp. *F	500+/-50	200+/-25			40	90	/ 1
Weld Position	1G	1G		170 1			
	-	-					
	Di	ffusible Hydrogen - To	ested i	n accordance with AWS A5.18/A5.1	8M, Clause	15	
		& Extended Ex	posur	e - in accordance with AWS D1.8/D	1.8M		
Condition		Lot - #		Test Reference #		Average (ml	/100g)
As Received		J60188		HB7471		4 (ml/100)g)
7 Day Exposu	re	J60188		HB7508		2 (ml/100)g)

James Owens, Quality Assurance Specialist