



**Product:** FabCOR 86R  
**Diameter:** .045"  
**Shielding Gas:** M21-ArC-25  
**Current/Polarity:** DCEP  
**Classification:** E70C-6M H4  
**Specification:** AWS A5.18/A5.18M:2017  
**Test Completed:** 11/02/2022

## Certificate of Conformance

### For AWS D1.8/D1.8M, Seismic Supplement

This is to certify that the product named is of the same classification, manufacturing process, and material requirements as the material, which was used for the test which was concluded on the date shown, the results of which are shown below. All test 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 System Program 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- # B624993101123	AWS D1.8 Requirements	High Heat Input	Low Heat Input			
	78.4 kJ/in	28.0 kJ/in	Mechanical Properties		78.4 kJ/in	28.0 kJ/in			
			Test Reference #		PD7072	PD7172			
Voltage	28.5	28.5	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000	75,000	90,000			
Current (amps)	275	275			58,000	60,000	81,000		
WFS (ipm)	420	420				22	31	26	
Travel Speed (ipm)	6	17.2					40	91	101
Stick Out	3/4"	1/2"							
# of passes	7	16							
# of layers	4	6							
Preheat Temp. °F	300+/-25	RT							
Interpass Temp. °F	500+/-50	200+/-25							
Weld Position	1G	1G							

Test Settings	High Heat Input	Low Heat Input	Lot- # Z619202406111	AWS D1.8 Requirements	High Heat Input	Low Heat Input			
	78.4 kJ/in	28.8 kJ/in	Mechanical Properties		78.4 kJ/in	28.8 kJ/in			
			Test Reference #		PD2377	PD2372			
Voltage	28.5	28.5	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000	76,000	91,000			
Current (amps)	275	280			58,000	60,000	79,000		
WFS (ipm)	420	407				22	32	28	
Travel Speed (ipm)	6	16.6					40	110	108
Stick Out	5/8"	3/4"							
# of passes	8	16							
# of layers	4	6							
Preheat Temp. °F	300+/-25	RT							
Interpass Temp. °F	500+/-50	200+/-25							
Weld Position	1G	1G							

Test Settings	High Heat Input	Low Heat Input	Lot- # G60305	AWS D1.8 Requirements	High Heat Input	Low Heat Input			
	78.4 kJ/in	31.1 kJ/in	Mechanical Properties		78.4 kJ/in	31.1 kJ/in			
			Test Reference #		PE4885	PE4796			
Voltage	28.5	28.5	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000	72,000	81,000			
Current (amps)	275	275			58,000	58,000	70,000		
WFS (ipm)	415	415				22	32	27	
Travel Speed (ipm)	6	16.37					40	149	83
Stick Out	3/4"	3/4"							
# of passes	8	17							
# of layers	4	6							
Preheat Temp. °F	300+/-25	RT							
Interpass Temp. °F	500+/-50	200+/-25							
Weld Position	1G	1G							

**Diffusible Hydrogen - Tested in accordance with AWS A5.18/A5.18M, Clause 15 & Extended Exposure - in accordance with AWS D1.8/D1.8M**

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	G60305	HB6206	2.7 (ml/100g)
7 Day Exposure	G60305	HB6230	4.5 (ml/100g)

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James Owens, Quality Assurance Specialist



**Product:** FabCOR 86R  
**Diameter:** .045"  
**Shielding Gas:** M20-ArC-15  
**Current/Polarity:** DCEP  
**Classification:** E70C-6M H4  
**Specification:** AWS A5.18/A5.18M  
**Test Completed:** 5/27/2022

## Certificate of Conformance

### For AWS D1.8/D1.8M, Seismic Supplement

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Test Settings	High Heat Input	Low Heat Input	Lot - # G91101	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	79.1 kJ/in	28.7 kJ/in	<b>Mechanical Properties</b>		79.1 kJ/in	28.7 kJ/in
			Test Reference #		PE4037	PE4036
Voltage	26.5	26.5	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	77,700 61,400 32 103	91,800 83,400 25 110
Current (amps)	285	285				
WFS (ipm)	430	430				
Travel Speed (ipm)	5.74	15.97				
Stick Out	1/2"	1/2"				
# of passes	7	16				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot - # G91136	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.6 kJ/in	29.0 kJ/in	<b>Mechanical Properties</b>		80.6 kJ/in	29.0 kJ/in
			Test Reference #		PE4067	PE4022
Voltage	26.5	26.5	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	75,300 59,900 30 96	88,200 76,800 24 100
Current (amps)	285	285				
WFS (ipm)	430	430				
Travel Speed (ipm)	5.68	15.73				
Stick Out	1/2"	1/2"				
# of passes	7	16				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot - # G91257	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	79.2 kJ/in	29.7 kJ/in	<b>Mechanical Properties</b>		79.2 kJ/in	29.7 kJ/in
			Test Reference #		PE4013	PE4012
Voltage	26.5	26.5	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	81,600 70,000 26 81	90,900 81,100 25 91
Current (amps)	285	285				
WFS (ipm)	430	430				
Travel Speed (ipm)	5.77	15.4				
Stick Out	1/2"	1/2"				
# of passes	7	16				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

#### Diffusible Hydrogen - Tested in accordance with AWS A5.18/A5.18M, Clause 15 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	G91101	HB5709	3.0 (ml/100g)
7 Day Exposure	G91101	HB5755	2.8 (ml/100g)

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David A. Thomas, Quality Assurance Specialist



**Product:** FabCOR 86R  
**Diameter:** .052"  
**Shielding Gas:** M20-ArC-15  
**Current/Polarity:** DCEP  
**Classification:** E70C-6M H4  
**Specification:** AWS A5.18/A5.18M:2017  
**Test Completed:** 5/8/2023

## Certificate of Conformance

### For AWS D1.8/D1.8M, Seismic Supplement

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Test Settings	High Heat Input	Low Heat Input	Lot- # C624501101101	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.3 kJ/in	25.0 kJ/in	Mechanical Properties		80.3 kJ/in	25.0 kJ/in
			Test Reference #		PD9352	PD9351
Voltage	31.5	25	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	78,000 65,000 32 101	90,000 80,000 27 85
Current (amps)	425	250				
WFS (ipm)	500	270				
Travel Speed (ipm)	8	15				
Stick Out	3/4"	3/4"				
# of passes	8	20				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # A605481102171	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.3 kJ/in	25.0 kJ/in	Mechanical Properties		80.3 kJ/in	25.0 kJ/in
			Test Reference #		PD3643	PD3644
Voltage	31.5	25	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	71,600 60,800 27 143	87,400 77,800 29 134
Current (amps)	425	250				
WFS (ipm)	455	225				
Travel Speed (ipm)	10	15				
Stick Out	3/4"	3/4"				
# of passes	8	20				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # H60929	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80 kJ/in	31 kJ/in	Mechanical Properties		80 kJ/in	31 kJ/in
			Test Reference #		PE6146	PE6188
Voltage	31.5	25	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	77,000 62,000 28 117	87,000 77,000 26 134
Current (amps)	425	250				
WFS (ipm)	455	275				
Travel Speed (ipm)	9.5	15				
Stick Out	3/4"	3/4"				
# of passes	8	15				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

#### Diffusible Hydrogen - Tested in accordance with AWS A5.18/A5.18M, Clause 15 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	H60929	HB6783	2.4 (ml/100g)
7 Day Exposure	H60929	HB3990	5.1 (ml/100g)

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James Owens, Quality Assurance Specialist



**Product:** FabCOR 86R  
**Diameter:** .052"  
**Shielding Gas:** M21-ArC-25  
**Current/Polarity:** DCEP  
**Classification:** E70C-6M H4  
**Specification:** AWS A5.18/A5.18M:2017  
**Test Completed:** 11/10/2023

## Certificate of Conformance

### For AWS D1.8/D1.8M, Seismic Supplement

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Test Settings	High Heat Input	Low Heat Input	Lot- # H63743	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	79.7 kJ/in	30.0 kJ/in	<b>Mechanical Properties</b>		79.7 kJ/in	30.0 kJ/in
			Test Reference #		PE7170	PE7171
Voltage	31.9	25	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	74,500 59,200 33 129	85,800 74,900 27 106
Current (amps)	379	268				
WFS (ipm)	470	275				
Travel Speed (ipm)	9.1	13.6				
Stick Out	3/4"	3/4"				
# of passes	6	17				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # H63784	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.6 kJ/in	28.7 kJ/in	<b>Mechanical Properties</b>		80.9 kJ/in	28.7 kJ/in
			Test Reference #		PE7156	PE7160
Voltage	32	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	72,500 58,300 32 143	87,000 75,300 28 65
Current (amps)	375	250				
WFS (ipm)	480	270				
Travel Speed (ipm)	8.9	13.5				
Stick Out	3/4"	3/4"				
# of passes	8	15				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # H63061	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	79.7 kJ/in	28.7 kJ/in	<b>Mechanical Properties</b>		79.7 kJ/in	28.7 kJ/in
			Test Reference #		PE7232	PE7158
Voltage	31.8	25	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	75,600 58,000 30 100	87,500 76,900 25 85
Current (amps)	371	262				
WFS (ipm)	495	275				
Travel Speed (ipm)	8.9	13.9				
Stick Out	3/4"	3/4"				
# of passes	6	17				
# of layers	4.5	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

#### Diffusible Hydrogen - Tested in accordance with AWS A5.18/A5.18M, Clause 15 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	H63743	HB7229	3.2 (ml/100g)
7 Day Exposure	H63743	HB7262	4.4 (ml/100g)

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James Owens, Quality Assurance Specialist



**Product:** FabCOR 86R  
**Diameter:** 1/16"  
**Shielding Gas:** M20-ArC-15  
**Current/Polarity:** DCEP  
**Classification:** E70C-6M H4  
**Specification:** AWS A5.18/A5.18M  
**Test Completed:** 5/11/2023

## Certificate of Conformance

### For AWS D1.8/D1.8M, Seismic Supplement

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Test Settings	High Heat Input	Low Heat Input	Lot- # D601162507302	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	81.2 kJ/in	30.1 kJ/in	Mechanical Properties		81.2 kJ/in	30.1 kJ/in
			Test Reference #		PD9607	PD9578
Voltage	29	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	72,100 58,000 31 115	83,700 73,300 27 111
Current (amps)	420	255				
WFS (ipm)	350	170				
Travel Speed (ipm)	9	12.8				
Stick Out	3/4"	3/4"				
# of passes	5	19				
# of layers	3	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # A608700107081	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.2 kJ/in	25.2 kJ/in	Mechanical Properties		80.2 kJ/in	25.2 kJ/in
			Test Reference #		PD4032	PD4081
Voltage	28	25	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	73,700 59,200 33 57	83,600 71,600 25 102
Current (amps)	420	260				
WFS (ipm)	315	160				
Travel Speed (ipm)	8.8	15.5				
Stick Out	3/4"	3/4"				
# of passes	7	20				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # H60815	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	78.2 kJ/in	29.5 kJ/in	Mechanical Properties		78.2 kJ/in	29.5 kJ/in
			Test Reference #		PE6083	PE6087
Voltage	28	25	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	77,000 62,000 32 131	84,000 73,000 28 112
Current (amps)	420	260				
WFS (ipm)	315	160				
Travel Speed (ipm)	8	13				
Stick Out	3/4"	3/4"				
# of passes	8	20				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

#### Diffusible Hydrogen - Tested in accordance with AWS A5.18/A5.18M, Clause 15 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	H60815	HB6760	3.2 (ml/100g)
7 Day Exposure	H60815	HB6759	3.7 (ml/100g)

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James Owens, Quality Assurance Specialist





**Product:** FabCOR 86R  
**Diameter:** 1/16"  
**Shielding Gas:** M21-ArC-25  
**Current/Polarity:** DCEP  
**Classification:** E70C-6M H4  
**Specification:** AWS A5.18/A5.18M:2021  
**Test Completed:** 3/17/2022

## Certificate of Conformance

### For AWS D1.8/D1.8M, Seismic Supplement

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Test Settings	High Heat Input	Low Heat Input	Lot- # G60184	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	79.4 kJ/in	30.1 kJ/in	<b>Mechanical Properties</b>		79.4 kJ/in	30.1 kJ/in
			Test Reference #		PE3767	PE3771
Voltage	29	28	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	79,000 60,000 30 82	81,000 69,000 28 114
Current (amps)	430	275				
WFS (ipm)	350	190				
Travel Speed (ipm)	9.2	15.4				
Stick Out	3/4"	3/4"				
# of passes	8	20				
# of layers	4	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # B602360101182	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	83.6 kJ/in	30.1 kJ/in	<b>Mechanical Properties</b>		83.6 kJ/in	30.1 kJ/in
			Test Reference #		PD7158	PD7154
Voltage	29	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	74,000 58,000 32 76	86,000 74,000 26 96
Current (amps)	420	255				
WFS (ipm)	369	170				
Travel Speed (ipm)	8.8	13				
Stick Out	3/4"	3/4"				
# of passes	6	20				
# of layers	3	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # Z60121010221	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	83.6 kJ/in	30.1 kJ/in	<b>Mechanical Properties</b>		83.6 kJ/in	30.1 kJ/in
			Test Reference #		PD0514	PD0525
Voltage	29	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	83,000 68,000 29 83	86,000 76,000 28 95
Current (amps)	420	255				
WFS (ipm)	369	170				
Travel Speed (ipm)	8.8	13				
Stick Out	3/4"	3/4"				
# of passes	6	20				
# of layers	3	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

#### Diffusible Hydrogen - Tested in accordance with AWS A5.18/A5.18M, Clause 15 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	G60077	HB5525	1.9 (ml/100g)
7 Day Exposure	G60077	HB5542	2.3 (ml/100g)

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David A. Thomas, Quality Assurance Specialist



**Product:** FabCOR 86R  
**Diameter:** 3/32"  
**Shielding Gas:** M20-ArC-15  
**Current/Polarity:** DCEP  
**Classification:** E70C-6M H4  
**Specification:** AWS A5.18/A5.18M  
**Test Completed:** 4/19/2021

## 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 test 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- # D01724	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.8 kJ/in	41.1 kJ/in			80.8 kJ/in	41.1 kJ/in
			<b>Mechanical Properties</b>			
			Test Reference #		PE2223	PE2230
Voltage	31.5	27	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	82,000 64,800 26 84	93,400 82,700 26 97
Current (amps)	500	350				
WFS (ipm)	170	110				
Travel Speed (ipm)	11.7	13.8				
Stick Out	3/4"	3/4"				
# of passes	8	14				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # D01732	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	82.2 kJ/in	40.5 kJ/in			82.2 kJ/in	40.5 kJ/in
			<b>Mechanical Properties</b>			
			Test Reference #		PE2218	PE2224
Voltage	31.5	27	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	80,100 61,600 29 110	87,800 77,300 26 137
Current (amps)	500	350				
WFS (ipm)	180	110				
Travel Speed (ipm)	11.5	14				
Stick Out	3/4"	3/4"				
# of passes	7	14				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # F02543	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	79.4 kJ/in	39.6 kJ/in			79.4 kJ/in	39.6 kJ/in
			<b>Mechanical Properties</b>			
			Test Reference #		PE2248	PE2237
Voltage	31.5	27	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	70,000 58,000 22 40	87,400 65,200 26 80	90,500 79,100 26 108
Current (amps)	500	350				
WFS (ipm)	180	110				
Travel Speed (ipm)	11.9	14.3				
Stick Out	3/4"	3/4"				
# of passes	9	14				
# of layers	5	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	1G	1G				

#### Diffusible Hydrogen - Tested in accordance with AWS A5.18/A5.18M, Clause 15 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	D01732	HB4800	3.1 (ml/100g)
7 Day Exposure	F02543	HB4814	3.2 (ml/100g)

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David A. Thomas, Quality Assurance Representative