March 28th 2022

Olympus Custom Homes
1611 Ashton Circle
Liberty, MO. 64068

RE: 2353 SW Hickory Lane

To Whom It May Concern:

Mr. Justin Heller performed the welded connection in reference to the above address. Enclosed is a copy of his current welding certification for your files. If you have any further questions, please call us.

Sincerely,

Sheila M. Jones
President

JONES IRON & METAL

Welder Qualification Test Record

WQTR No. JIM-SMAW-V-heller Welder Name Justin Heller Welder Id

WPS No. JIM-SMAW(Cady) Revision 0 Date 10/21/2020

Variables	Record Actual Values Used In Qualification	Qualification Range
Process (Table 4.10, Item (1))	SMAW	SMAW
Transfer Mode (GMAW): Short-Cir. ☐ Globular ☐ Spray ☐		Short-Circuiting ☐ Globular ☐ Spray ☐
Type Manual ☒ Machine ☐ Semi-Auto ☐ Auto ☐		Manual ☒ Machine ☐ Semi-Auto ☐ Auto ☐
Number of Electrodes Single ☒ Multiple ☐		Single ☒ Multiple ☐
Current/Polarity AC ☐ DCEP ☒ DCEN ☐ Pulsed ☐		AC ☐ DCEP ☒ DCEN ☐ Pulsed ☐
Position (Table 4.10, Item (4))	Vertical	Flat, Vertical, Horizontal, 3G
Weld Progression: (Table 4.10, Item (6)) Up ☒ Down ☐		Up ☒ Down ☐
Backing [Table 4.10, Item (7)] Use Backing ☐		With Backing ☒ Without Backing ☐
Consumable Insert (GTAW) Use Insert ☐		With Insert ☐ Without Insert ☐
Material/Spec.	ASTM A36 to ASTM A36	MILD STEEL GROUPS
Thickness (Plate): Groove (in)	.375	.125 - .750 in
Fillet (in)		Any - Any in
Thickness (Pipe/tube): Groove (in)		.125 - .75 in
Fillet (in)		Any - Any in
Diameter(Pipe): Groove ( )		24" - greater in
Fillet ( )		Any - Any
Notes		PIPE QUAL.FOR >24INCHES IN DIAMETER.ALL
Filler Metal (Table 10, Item (2))		
Spec.	SFA 5.1	EXX15,EXX16,EXX18,EXX15-X,EXX16-X,EXX18-X
Class.	E-7018	EXX20,EXX27,EXX28,EXX20-X,EXX27-X
F-No.	4	EXX12,EXX13,EXX14,EXX13-X
		EXX10,EXX11,EXX10-X,EXX11-X
Gas/Flux Type (Table 4.10, Item (3))		
Other		With backing or back gouge

VISUAL INSPECTION (4.8.1) Acceptable Yes

GUIDED BEND TEST RESULTS (4.30.5)

Type	Result	Type	Result
ROOT BEND	ACCEPTABLE		
FACE BEND	ACCEPTABLE		

Fillet Test Results (4.30.2.3 and 4.30.4.1)

Appearance na Fillet Size na Macroetch na

Fracture Test Root Penetration na Description na

Inspected By M.D. SCHNEIDER Test No. JIM20vheller Organization PRAXAIR DIST. INC. Date 10/21/2020

RADIOGRAPHIC TEST RESULTS (4.30.3.1)

Film Identification No.	Result	Remark	
na			Interpreted By na Organization Test No. Date

Michael D Schneider
CWI 97080931
QC1 EXP. 8/1/2021

We, the undersigned, certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of section 4 of ANSI/AWS D1.1, (2020) Structural Welding Code-Steel.

Manufacturer JONES IRON & METAL Authorized By Date 10/21/2020

JONES IRON METAL

Welding Procedure Specification

JIM-SMAW

WPS No. JIM-SMAW Revision ____ Date ____ By ____

Authorized By ____ Date 3/2/2013 Prequalified ☒

Welding Process(es) SMAW ____ Type: Manual ☒ Machine ☐ Semi-Auto ☐ Auto ☐

Supporting PQR(s) ____

JOINT

Type Butt

Backing Yes ☒ No ☐ Single Weld ☐ Double Weld ☒

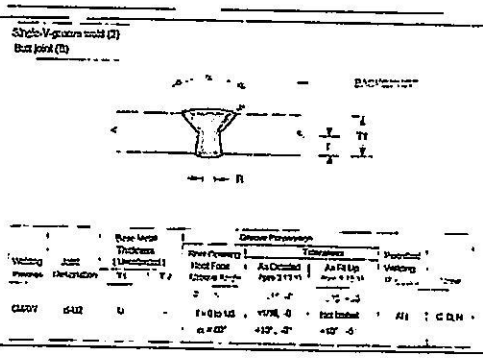
Backing Material BACK WELD

Root Opening 0-1/8" Root Face Dimension 0-1/8"

Groove Angle 60 Radius (J-U) ____

Back Gouge Yes ☒ No ☐

Method GRIND-BRUSH



BASE METALS

Material Spec. A-36 to A-36

Type or Grade ____ to ____

Thickness: Groove (in) .125 - .750

Fillet (in) Any - Any

Diameter (Pipe,) ____ - ____

FILLER METALS

AWS Specification 5.1

AWS Classification E-6010/E-7018

SHIELDING

Flux ____ Gas ____

Composition ____

Electrode-Flux (Class) ____ Flow Rate ____

Gas Cup Size ____

PREHEAT

Preheat Temp., Min. 50 F

Thickness	Temperature
Up to 3/4"	50 F
Over 3/4" to 1-1/2"	150 F
Over 1-1/2" to 2-1/2"	225 F
Over 2-1/2"	300 F

Interpass Temp., Min. 50 F Max. 450 F

POSITION

Position of Groove ANY Fillet ANY

Vertical Progression: ☐ Up ☐ Down

ELECTRICAL CHARACTERISTICS

Transfer Mode (GMAW):

Short-Circuiting ☐ Globular ☐ Spray ☐

Current: AC ☐ DCEP ☒ DCEN ☐ Pulsed ☐

Other ____

Tungsten Electrode (GTAW):

Size ____ Type ____

TECHNIQUE

Stringer or Weave Bead Both

Multi-pass or Single Pass (per side) Both

Number of Electrodes 1

Electrode Spacing: Longitudinal ____

Lateral ____

Angle ____

Contact Tube to Work Distance ____

Peening N/A

Interpass Cleaning GRIND-BRUSH

POSTWELD HEAT TREATMENT

PWHT Required ☐

Temp. ____ Time ____

WELDING PROCEDURE

Layer/Pass	Process	Filler Metal Class	Diameter	Cur. Type	Amps or WFS	Volts	Travel Speed	Other Notes
1-n	SMAW	E-7018LH	1/8"	DCEP	100-125 A	19-22 V	3-5 IPM	BACK GOUGE BACK WELD

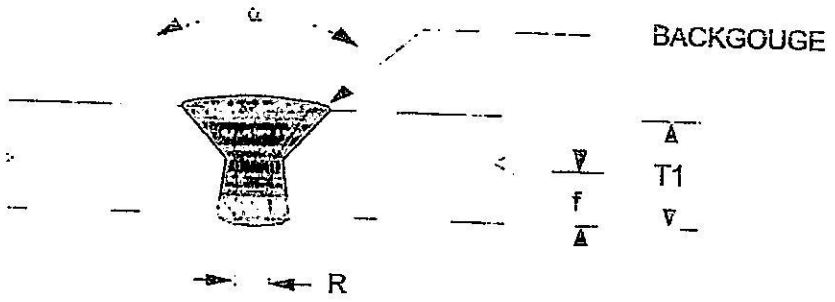
RICHARD P. GAO

JONES IRON METAL

Welding Procedure Specification

JIM-SMAW

Single-V-groove weld (2)
Butt joint (B)



Welding Process	Joint Designation	Base Metal Thickness (U=unlimited) T1	T2	Groove Preparation: Root Opening / Root Face / Groove Angle	Tolerances: As Detailed (see 3.13.1)	Tolerances: As Fit Up (see 3.13.1)	Permitted Welding Positions	Notes
SMAW	B-U2	U	-	R = 0 to 1/8	+1/16, -0	+1/16, -1/8		
				f = 0 to 1/8	+1/16, -0	Not limited	All	C, D, N
				α = 60°	+10°, -0°	+10°, -5°		

MEMO

AWS D1.1 STRUCTRUAL CODE-GROOVES AND FILLETS

RICHARD P CAD
941062841
CWI