

ACCURATE WELDMENT TESTING, INC.

API Registered Firm • ISO 9001:2000

Welding Procedures • Welder Qualifications • Mechanical Testing

P.O. Box 11736 • New Iberia, LA 70562 • Tel. 337/365-6312 • Fax 337/365-6359

WELDING PROCEDURE SPECIFICATION (WPS) YES Page 1 of 1
 PREQUALIFIED _____ QUALIFIED BY TESTING X
 or PROCEDURE QUALIFICATION RECORD (PQR) YES

THE FOLLOWING PROCEDURE MEETS THE REQUIREMENTS OF AWS D1.1 2006

Company Name ROCLAN SERVICES, INC.
 Welding Process(es) FCAW
 Supporting PQR No. PQR 203-1

Identification No. WPS 203
 Revision 02*(1-7-09) Date 01-18-07 By [Signature]
 Authorized By _____ Date _____
 Type-Manual Semi-Automatic
 Machine Automatic

JOINT DESIGN USED

Type: Single Double Weld
 Backing Yes No
 Backing Material WHEN USED COMPATIBLE TO BASE METAL
 Root Opening 1/32"-5/32"
 Root Face Dimension 0-1/8"
 Groove Angle ≥37 1/2°
 Backgouging: Yes No Method NOT REQUIRED,
BUT WHEN UTILIZED TO BE PERFORMED BY ARC GOUGING OR
POWER GRINDING.

BASE METALS

Material Spec. ANY GROUP I OR II MATERIAL
 Type or Grade SEE TABLE 3.1 FOR LISTINGS.
 Thickness Groove 3/16"-UNLIMITED Fillet UNLIMITED
 Diameter (Pipe) 4"-UNLIMITED

FILLER METALS

AWS Specification AWS 5.20
 AWS Classification E71T-1

SHIELDING

Flux N/A Gas FCAW ARGON/CO₂
 Composition 75%/25%
 Electrode-Flux (Class) N/A Flow Rate 36 CFH-67.5 CFH
 N/A Gas Cup Size 3/8"

PREHEAT:

Preheat Temp Min 100°F
 Interpass Temp. Min 100°F Max 600°F

POSITION

Position Of Groove ALL Fillet ALL
 Vertical Progression: UP Down

ELECTRICAL CHARACTERISTICS

Transfer Mode (GMAW):
 Short-Circuiting Globular Spray
 Current: AC DCEP DCEN Pulsed
 Other N/A

Tungsten Electrode (GTAW)

Size N/A
 Type N/A

TECHNIQUE

Stringer or Weave Bead BOTH AS NEEDED
 Multi-pass or Single (per side) MULTIPASS.
 Number of Electrodes SINGLE.
 Electrode Spacing: Longitudinal N/A
 Lateral N/A
 Angle N/A
 Contact Tube to Work Distance N/A
 Peening N/A
 Interpass Cleaning POWER GRIND AND/OR POWER BRUSH.

POSTWELD HEAT TREATMENT: NONE

Weld passes: *IF THE PRODUCTION WELD GROOVE AREA DIFFERS FROM
 THAT OF THE PQR GROOVE AREA THE NUMBER OF PASSES
 IN PRODUCTION CAN BE CHANGED IN PROPORTION.
 FOR THE PQR GROOVE AREA, AN INCREASE OR DECREASE >25% IN THE
 NUMBER OF PASSES. ALSO SEE WELD PASSES ABOVE.

Pass or Weld Layer(s)	Process	Filler Metals		Current		Volts	TRAVEL SPEED IPM	Joint Details ANY JOINT DETAILS SHOWN IN FIGURE 3.3 & 3.4 OF AWS D1.1
		Class	Diameter	Type & Polarity	Amps			
1-BAL.	FCAW	E71T-1	0.045"	DCEP	160-197	22.0-25.0	3.0-6.0	

* REVISED 1-7-09 TO REFLECT COMPANY NAME CHANGE.

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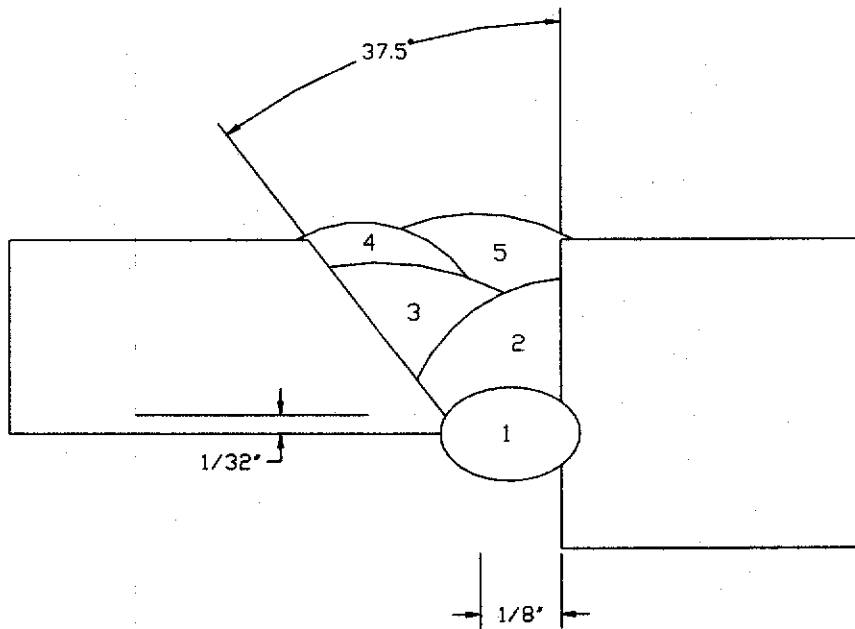
ROCLAN SERVICE & SUPPLY, LLC

PQR 203-1

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LAYER NO.	PROCESS	VOLTS	TRAVEL SPEED (IPM)	AMPS	FILLER METAL AND SIZE		INTERPASS TEMP. °F
1	FCAW	19	4.04	177	E71T-12MJ	.045"	109
2	FCAW	23	6.35	175	E71T-12MJ	.045"	117
3	FCAW	22	6.55	179	E71T-12MJ	.045"	388
4	FCAW	23	8.89	164	E71T-12MJ	.045"	219
5	FCAW	23	8.89	148	E71T-12MJ	.045"	245

JOINT DETAILS



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PROCEDURE QUALIFICATION RECORD (POR) 203-1 PAGE 3 OF 3

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TEST RESULTS

TENSILE TEST

Specimen No.	Width	Thickness	Area	Ultimate Tensile Load, Lb.	Ultimate Unit Stress, Psi	Character of failure and location
T-1	0.753"	0.320"	0.241"	17,236	71,519	DUCTILE, PARENT METAL
T-2	0.775"	0.290"	0.225"	15,825	70,333	DUCTILE, PARENT METAL

GUIDED BEND TEST

Specimen No.	Type of bend	Result	Remarks
SIDE BEND #1	SIDE BEND	SATISFACTORY	NO TEARS
SIDE BEND #2	SIDE BEND	SATISFACTORY	NO TEARS
SIDE BEND #3	SIDE BEND	SATISFACTORY	NO TEARS
SIDE BEND #4	SIDE BEND	SATISFACTORY	NO TEARS

VISUAL INSPECTION

Appearance ACC. PER AWS D1.1 2006
 Undercut NONE
 Piping Porosity NONE
 Convexity N/A
 Test Date 01-18-07
 Witnessed By _____

Radiographic - Ultrasonic examination
 RT Report No. 0-53327 Result SATISFACTORY
 UT Report No. N/A Result N/A


FILLET WELD TEST RESULTS

Minimum size multiple pass	Maximum size single pass
Macroetch	Macroetch
1. <u>N/A</u> 3 <u>N/A</u>	1. <u>N/A</u> 3. <u>N/A</u>
2. <u>N/A</u>	2. <u>N/A</u>

Other Tests: NONE

All-weld-metal tension test

Tension strength, psi N/A
 Yield point/strength, psi N/A
 Elongation in 2 in. % N/A
 Laboratory test no. N/A


Welder's name DONOVAN ROBIN  Clock No. LADL# 006320452 Stamp No. X
 Tests conducted by ACCURATE WELDMENT TESTING INC. Laboratory Test Number 19206

Per AWS D1.1

We the undersigned, certify that the statements in the record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of /AWS D1.1(2006) Structural Welding Code-Steel.

ROCLAN SERVICE & SUPPLY, LLC

Manufacturer or Contractor

Signed By 
 Title SHOP SUPT.
 Date 1-16-07