

12/28/2005 15:02 FAX 2072854054

ARC ENTERPRISES

RECEIVED
VTRANS

OK'D BY _____ OK'D BY JW

JAN 20 2010

RESUBMIT _____ APPROVED

BY _____ DATE 01/29/10

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
 Approved Returned for Corrections

JA: 3, 2006

WELDING PROCEDURE SPECIFICATION (WPS) YES () X
~~PROJECTED~~ QUALIFIED BY TESTING _____
 OF PROCEDURE QUALIFICATION RECORD (PQR) YES ()

Approved as noted

William Doukas, P.E.

Company Name ARC ENTERPRISES, INC.
 Welding Process(es) GMAW
 Supporting PQR No.(s) _____

Identification # ARC WPS 5M2
 Revision 2 Date 12/5/2005 By SVH
 Authorized By Steve Howard Date 12/5/2005
 Type - Manual () Semi-Automatic (X)
 Machine () Automatic ()

| | | | |
|---|--|--|--|
| JOINT DESIGN USED Type <u>FILLET</u> Single (X) Double Weld () Backing YES () NO (X) Backing Material <u>N/A</u> Root Opening <u>0</u> Root Face Dimension <u>N/A</u> Groove Angle <u>N/A</u> Radius (J-U) <u>N/A</u> Back Gouging YES () NO (X) Method <u>N/A</u> | | POSITION Position of Groove <u>Fillet</u> <u>1F 2F</u> Vertical Progression () UP () DOWN | |
| BASE METALS Material Spec <u>A709</u> Type or Grade <u>36</u> <u>50</u> Thickness <u>Groove N/A</u> Fillet <u>UNLIMITED</u> Diameter (Pipe) <u>N/A</u> | | ELECTRICAL CHARACTERISTICS Transfer Mode (FCAM) <u>Short Circuiting ()</u> Globular () Spray (X) Current: AC () DCEP (X) DCEN () Pulsed () OTHER: _____ | |
| FILLER METALS AWS Specification <u>A5.18</u> AWS Classification <u>ER70S-7</u> <u>ESAB</u> <u>87 HP</u> | | TECHNIQUE Stringer or Weave Bead <u>STRINGER</u> Multi-pass or Single Pass (per side) <u>SINGLE / Multi</u> Number of Electrodes <u>1</u> Electrode Spacing <u>Longitudinal N/A</u> <u>Lateral N/A</u> <u>Angle N/A</u> | |
| SHIELDING <u>88%AR</u> <u>2%O</u> Flux _____ Gas <u>B-2</u> Composition _____ Electrode - Flux (Class) _____ Flow Rate <u>25-40</u> <u>N/A</u> Gas Cup Size <u>5/8</u> | | Contact Tube to Work Distance <u>5/8 - 3/4</u> Pooling <u>N/A</u> Interpass Cleaning: _____ | |
| $T \leq 3/4 50$ $3/4 - 1-1/2 = 70$ $1-1/2 - 2-1/2 = 180$ $OVER 2-1/2 = 225$ | | POSTWELD HEAT TREATMENT OK'D BY _____ Temp <u>N/A</u> Time <u>N/A</u> <u>JAN 20 2010</u> | |

RESUBMIT _____ APPROVED _____

| Pass or Weld Layer(s) | Size S | Filler Metals | | Current | | Volts | Travel Speed | Date/Init Details |
|-----------------------|--------|---------------|----------|-----------------|-----------------------------|-------|--------------|-------------------|
| | | Class | Diameter | Type & Polarity | Amperage or Wire Feed Speed | | | |
| 1 | 3/16 | ER70S-7 | 0.035 | DCEP | 180-220 | 25-27 | 7-9 | |
| 1 | 1/4 | ER70S-7 | 0.035 | DCEP | 180-220 | 25-27 | 5-6 | |
| 1 | 5/16 | ER70S-7 | 0.035 | DCEP | 180-220 | 25-27 | 4-5 | |
| 1 | 3/8 | ER70S-7 | 0.035 | DCEP | 180-220 | 25-27 | 3-4 | |
| 1 | 7/16 | ER70S-7 | 0.035 | DCEP | 180-220 | 25-27 | + 2-3 | |
| 1 | 1/2 | ER70S-7 | 0.045 | DCEP | 270-330 | 28-30 | + 2-3 | |

+ Sec 4.14.3 AWS D1.5