

WELDING PROCEDURE SPECIFICATION (WPS)
PREQUALIFIED QUALIFIED BY TESTING
or PROCEDURE QUALIFICATION RECORDS (PQR) Yes
AASHTO/AWS D1.5 Qualification Type 5.12.1 - 5.12.2 - 5.13

Contractor/ Organization MERRIMACK SHEET METAL
 Welding Process(es) GMAW
 Type: Manual Semiautomatic
 Machine Automatic
 Tandem Parallel

Identification LA-5
 Revision 0 Date 6/1/2010 By KK
 Authorized by KK Date 6/1/2010
 Supporting PQR No.(s) PQLA1

JOINT DESIGN USED

Single Double Weld
 Backing: Yes No Material _____
 Root Opening NA Root Face Dimension NA
 Groove Angle NA Radius (J-U) _____
 Backgouging: Yes No Method _____
 Root Treatment CLEAN TO BRIGHT METAL

POSITION
 Position of Groove NA Fillet 1F or 2F
 Vertical Progression: Up Down

ELECTRICAL CHARACTERISTICS

Transfer Mode (GMAW): Globular Spray
 Current: AC DCEP DCEN Pulsed
 Electrical Stick Out 3/4
 Other _____

BASE METALS

Material Spec. A36 ; A588 ; A709 ;
 Type or Grade G50
 Thickness: Groove NA Fillet UNLIMITED
 Diameter (Pipe) NA

TECHNIQUE

Stringer or Weave Bead BOTH
 Multi-pass or Single Pass (per side) BOTH
 Number of Electrodes 1
 Electrode Spacing: Longitudinal NA
 Lateral NA Angle NA
 Interpass Cleaning CLEAN WITH WIRE BRUSH

FILLER METALS

AWS Specification A5.28
 AWS Classification ER80S-Ni1
 Manufacturer Trade Name LINCOLN SUPERARC LA-75

PREHEAT

Preheat Temp., Min. 70 F
 Interpass Temp., Min. 70 F
 Interpass Temp., Max. 400 F

SHIELDING

Flux NA Mfg. Trade Name NA
 Electrode-Flux (Class) NA
 Gas Composition 90% ARGON / 10% CO2
 Flow Rate 45 CFH Gas Cup Size 3/4

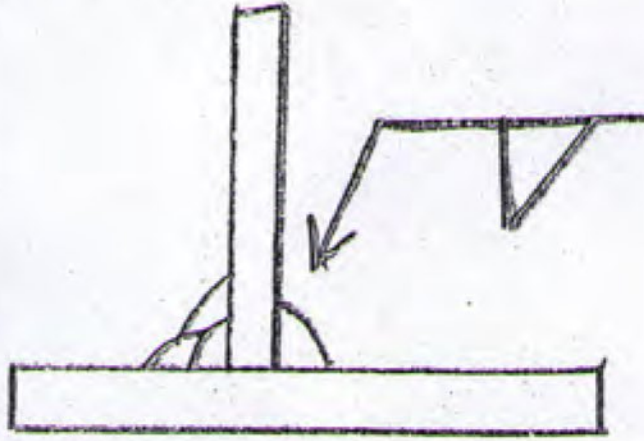
POSTWELD HEAT TREATMENT

Temp. NA Hold Time NA
 Heating/Cooling Rate NA

HEAT INPUT

Calculated Heat Input Value: kJ/in kJ/mm
 Max. Heat Input 42.7 Min. Heat Input 22.5

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals Diam.	Current		Volts	Travel Speed	Joint Details
			Type & Polarity	Amps or Wire Feed Speed			
ROOT 3/16	GMAW	.045	DCEP	220-260	26-29	15-18 IPM	LA-5-1F 
ROOT 1/4	GMAW	.045	DCEP	220-260	26-29	14-17 IPM	
ROOT 5/16	GMAW	.045	DCEP	220-270	26-29	13-16 IPM	
ROOT 3/8	GMAW	.045	DCEP	220-270	26-29	12-15 IPM	
2ND 3/8	GMAW	.045	DCEP	220-270	26-29	11-14 IPM	
3RD 3/8	GMAW	.045	DCEP	220-270	26-29	11-14 IPM	
ROOT 7/16	GMAW	.045	DCEP	220-270	26-29	12-15 IPM	
2ND 7/16	GMAW	.045	DCEP	220-270	26-29	12-14 IPM	
3RD 7/16	GMAW	.045	DCEP	220-270	26-29	12-15 IPM	

Form L-2

Form L-2—Sample Welding Procedure Specification