



**WELDING PROCEDURE SPECIFICATION (WPS) Yes**   
**PREQUALIFIED  QUALIFIED BY TESTING \_\_\_\_\_**  
**or PROCEDURE QUALIFICATION RECORDS (PQR) Yes**

Company Name LECO  
 Welding Process(es) SAW  
 Supporting PQR No.(s) Prequalified

Identification # W2081  
 Revision 2 Date 1-3-89 By R. Jones  
 Authorized by C. W. Hayes Date 1-3-89  
 Type—Manual  Semiautomatic   
 Mechanized  Automatic

**JOINT DESIGN USED**

Type: Butt  
 Single  Double Weld   
 Backing: Yes  No   
 Backing Material: ASTM A 36  
 Root Opening 5/8" Root Face Dimension —  
 Groove Angle: 20° Radius (J-U) —  
 Back Gouging: Yes  No  Method —

**BASE METALS**

Material Spec. ASTM A 36  
 Type or Grade —  
 Thickness: Groove 1" Fillet —  
 Diameter (Pipe) —

**FILLER METALS**

AWS Specification A5.17  
 AWS Classification EM12K

**SHIELDING**

Flux 860 Gas —  
 Composition —  
 Electrode-Flux (Class) F7A2-EM12K Flow Rate —  
 Gas Cup Size —

**PREHEAT**

Preheat Temp., Min. 150°F  
 Interpass Temp., Min. 150°F Max. 350°F

**POSITION**

Position of Groove: F Fillet: —  
 Vertical Progression: Up  Down

**ELECTRICAL CHARACTERISTICS**

Transfer Mode (GMAW) Short-Circuiting   
 Globular  Spray   
 Current: AC  DCEP  DCEN  Pulsed   
 Power Source: CC  CV   
 Other \_\_\_\_\_  
 Tungsten Electrode (GTAW)  
 Size: \_\_\_\_\_  
 Type: \_\_\_\_\_

**TECHNIQUE**

Stringer or Weave Bead: Stringer  
 Multi-pass or Single Pass (per side) Multipass  
 Number of Electrodes 1  
 Electrode Spacing Longitudinal —  
 Lateral —  
 Angle —  
 Contact Tube to Work Distance 1-1/4"  
 Peening None  
 Interpass Cleaning: Slag Removed

**POSTWELD HEAT TREATMENT**

Temp. N.A.  
 Time —

**WELDING PROCEDURE**

Pass or Weld Layer(s)	Process	Filler Metals		Current		Volts	Travel Speed	Joint Details
		Class	Diam.	Type & Polarity	Amps or Wire Feed Speed			
1-n	SAW	EM12K	5/32"	DC+	45 ipm 550 Amps ±10%	28 v ±7%	16 ipm ±15%	