WELDING PROCEDURE SPECIFICATION (WPS) Yes ☐
PREQUALIFIED _____ QUALIFIED BY TESTING _____
or PROCEDURE QUALIFICATION RECORDS (PQR) Yes ☐

Identification # _____
Revision _____ Date _____ By _____
Company Name _____
Authorized by _____ Date _____
Welding Process(es) _____ Type—Manual ☐ Semiautomatic ☐
Supporting PQR No.(s) _____ Mechanized ☐ Automatic ☐

JOINT DESIGN USED
Type:
Single ☐ Double Weld ☐
Backing: Yes ☐ No ☐
Backing Material:
Root Opening _____ Root Face Dimension _____
Groove Angle: _____ Radius (J–U) _____
Back Gouging: Yes ☐ No ☐ Method _____

POSITION
Position of Groove: _____ 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: _____

BASE METALS
Material Spec. _____
Type or Grade _____
Thickness: Groove _____ Fillet _____
Diameter (Pipe) _____

FILLER METALS
AWS Specification _____
AWS Classification _____

TECHNIQUE
Stringer or Weave Bead: _____
Multi-pass or Single Pass (per side) _____
Number of Electrodes _____
Electrode Spacing Longitudinal _____
Lateral _____
Angle _____
Contact Tube to Work Distance _____
Peening _____
Interpass Cleaning: _____

SHIELDING
Flux _____ Gas _____
Composition _____
Electrode-Flux (Class) _____ Flow Rate _____
_____ Gas Cup Size _____

PREHEAT
Preheat Temp., Min. _____
Interpass Temp., Min. _____ Max. _____

POSTWELD HEAT TREATMENT
Temp. _____
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			

Form N-1 (Front)

WELDING PROCEDURE SPECIFICATION (WPS) Yes [X]
PREQUALIFIED [X] QUALIFIED BY TESTING [ ]
or PROCEDURE QUALIFICATION RECORDS (PQR) Yes [ ]

Identification # W2081
Revision 2 Date 1-3-89 By R. Jones
Company Name LECO
Authorized by C. W. Hayes Date 1-3-89
Welding Process(es) SAW
Type—Manual [ ] Semiautomatic [ ]
Supporting PQR No.(s) Prequalified
Mechanized [X] Automatic [ ]

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

POSITION
Position of Groove: F Fillet: —
Vertical Progression: Up [ ] Down [ ]

ELECTRICAL CHARACTERISTICS
Transfer Mode (GMAW) Short-Circuiting [ ]
Globular [ ] Spray [ ]
Current: AC [ ] DCEP [X] DCEN [ ] Pulsed [ ]
Power Source: CC [ ] CV [ ]
Other
Tungsten Electrode (GTAW)
Size:
Type:

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

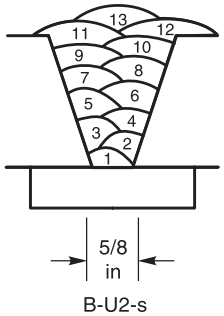
TECHNIQUE
Stringer or Weave Bead: Stringer
Multi-pass or Single Pass (per side) Multipass
Number of Electrodes 1
Electrode Spacing Longitudinal —
Lateral —
Angle —
Contact Tube to Work Distance 1-1/4"
Peening None
Interpass Cleaning: Slag Removed

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

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

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%	 B-U2-s

Form N-1 (Front)