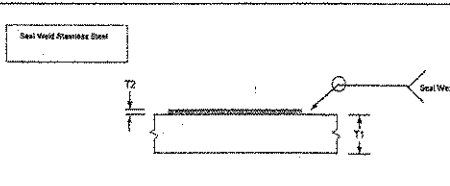


WPS No. **GTAW F1 - REV. 7** Date **4/10/00** By **David Lang II** Type  Manual  Machine   
 Authorized By **William Burhoe** Date **4/11/00** Revision **7** Semi-Auto  Auto   
 Welding Process(es) **GTAW** Prequalified   
 Supporting PQR(s) **98-101WB-F**

**JOINT**  
 Type **Lap Joint**  
 Backing Yes  No  Single Weld  Double Weld   
 Backing Material **N/A**  
 Root Opening **N/A** Root Face Dimension **N/A**  
 Groove Angle **N/A** Radius (J-U) \_\_\_\_\_  
 Back Gouge Yes  No   
 Method **N/A**

**Joint Detail**  
  

Property	Value
Strength	100
Elongation	20
Reduction of Area	40
Impact	10
Hardness	100

**BASE METALS**  
 Material Spec: **ASTM A240** to **ASTM A709**  
 Type or Grade: **304** to **50W**  
 Thickness: Groove (in) \_\_\_\_\_  
 Fillet (in) \_\_\_\_\_  
 Diameter (Pipe, in) \_\_\_\_\_

**POSITION**  
 Position of Groove \_\_\_\_\_ Fillet **Flat**  
 Vertical Progression:  Up  Down

**ELECTRICAL CHARACTERISTICS**  
 Transfer Mode (GMAW):  
 Short-Circuiting  Globular  Spray   
 Current: AC  DCEP  DCEN  Pulsed   
 Other \_\_\_\_\_  
 Tungsten Electrode (GTAW):  
 Size **3/32** Type **EWTH2**

**FILLER METALS**  
 AWS Specification **A5.9** **Harris-Welco**  
 AWS Classification **ER309L**

**SHIELDING**  
 Flux Gas **Argon**  
 Composition **100%**  
 Electrode-Flux (Class) Flow Rate **45 CFH**  
 Gas Cup Size **3/8 (6)**

**TECHNIQUE**  
 Stringer or Weave Bead **Stringer**  
 Multi-pass or Single Pass (per side) **Single**  
 Number of Electrodes **1**  
 Electrode Spacing: Longitudinal **N/A**  
 Lateral **N/A**  
 Angle **N/A**  
 Contact Tube to Work Distance **3/8**  
 Peening **Not Allowed**  
 Interpass Clearing **N/A**

**PREHEAT**  
 Preheat Temp., Min. **100**  
 Thickness Up to 3/4" Temperature **100**  
 Over 3/4" to 1-1/2" **100**  
 Over 1-1/2" to 2-1/2" **150**  
 Over 2-1/2" **225**  
 Interpass Temp., Min. \_\_\_\_\_ Max. \_\_\_\_\_

**POSTWELD HEAT TREATMENT** PWHT Required   
 Temp. \_\_\_\_\_ Time \_\_\_\_\_

**WELDING PROCEDURE**

Layer/Pass	Process	Filler/Metal Class	Diameter/Std. Type	Amps or VFS	Volts	Travel Speed	Other Notes
1	GTAW	ER309L	3/32 DCEN	150	23	6.11/18	

