

**APPENDIX G**

**DATA SHEETS AND CHECKLISTS FOR  
FABRICATION AND INSPECTION  
AND  
TEST DOCUMENTATION AND DATA PROCESSING**







Specimen Identification: \_\_\_\_\_

**SHOP FABRICATION**

**Quality Control**

- Weld Procedure Specifications submitted and approved
- Material controls and documentation in place
- Cutting method:  shearing  burning
- Holes made by:  punching  drilling

Finishing/  
edge conditions: \_\_\_\_\_

Weld access holes detailed per J.8 and  
commentary section J.1.7 of the ASD

*Notes:*

**Welding**

- Electrodes conform to specifications
- Manufacturer's product data followed
- WPS's applicable to joint(s) being welded  
(material grades and thickness, configuration)
- WPS's in conformance with AWS D1.1-96
- Welder qualified for joint(s) being welded  
(configuration, position)
- Preheat per AWS and approved WPS through  
the thickness of the joint and 3" from the joint

*Notes:*

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Specimen Identification: \_\_\_\_\_

**SHOP INSPECTION**

**General**

- Bolts conform to design
- Electrodes conform to specification
- Steel materials conform to design
- Cutting and drilling conform to design
- Finishing conforms to design

**Pre-Weld Inspection**

**Visual**

- Fit-up per AWS allowable tolerances
- Weld access holes detailed per J.8 and commentary section J.1.7 of the ASD
- Joint is free of  oil, grease       dirt  
 excessive rust

**Preheat**

- Preheat per AWS and approved WPS through the thickness of the joint and 3” from the joint
- Temperature sticks 3” from the weld joint, through the entire thickness

*Notes:*

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Specimen Identification: \_\_\_\_\_

**SHOP INSPECTION**

**Welding**

**Verify conformance with WPS and document parameters used**

- Type of joint to be fabricated \_\_\_\_\_
- Meters on welding equipment operational
- Welding process \_\_\_\_\_
- Voltage — measured at the arc \_\_\_\_\_ Volts
- Current \_\_\_\_\_
- Amperage — measured at the arc \_\_\_\_\_
- Polarity setting of welding machine \_\_\_\_\_
- Weld size \_\_\_\_\_ in.
- Position for welding \_\_\_\_\_
- Electrode diameter \_\_\_\_\_ in.
- FCAW and GMAW: electrical stick out \_\_\_\_\_ in.
- Gas-shielded: type of gas and mix \_\_\_\_\_
- Gas shielded: shielding gas flow rate \_\_\_\_\_
- Travel speed \_\_\_\_\_ in/sec
- Bead width and thickness \_\_\_\_\_ in.
- Technique (stringer, weave beads) \_\_\_\_\_
- Minimum and maximum preheat temperature \_\_\_\_\_ deg F
- Minimum and maximum interpass temperature \_\_\_\_\_ deg F
- Number and location of passes  
(range of passes for groove welds) \_\_\_\_\_
- Any in-process nondestructive testing \_\_\_\_\_
- Peening requirements \_\_\_\_\_
- Layer thickness and width \_\_\_\_\_ in.

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Specimen Identification: \_\_\_\_\_

**SHOP INSPECTION**

**Welding (continued)**

**Verify conformance with WPS and document parameters used**

Difference between root pass and subsequent passes, if any \_\_\_\_\_

Post-weld heat treatment requirements \_\_\_\_\_

Type and material of backing bar, if used \_\_\_\_\_

Provisions for removal of backing bar, backgouging, and re-welding, if required \_\_\_\_\_

Tolerances for dimensional values (plate thicknesses, fit-up, etc.) \_\_\_\_\_ in.

Tolerances for procedural values (voltage, current, travel speed, etc.) \_\_\_\_\_

*Notes:*

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Specimen Identification: \_\_\_\_\_

**SIMULATED FIELD ERECTION AND WELDING**

**Quality Control**

- Weld Procedure Specifications submitted and approved
- Joint erection sequence submitted  
(bolt tightening, welding top and bottom flange  
by layer, web welding, etc.)
- Specified bolt torquing/tensioning conforms with design

*Notes:*

**Welding**

- Electrodes conform to specifications
- Manufacturer's product data followed
- WPS's applicable to joint(s) being welded  
(material grades and thickness, configuration)
- WPS's in conformance with AWS D1.1-96
- Welder qualified for joint(s) being welded  
(configuration, position)
- Preheat per AWS and approved WPS through  
the thickness of the joint and 3" from the joint

*Notes:*

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_



Specimen Identification: \_\_\_\_\_

**FIELD INSPECTION**

**Welding**

**Verify conformance with WPS and document parameters used**

- Type of joint to be fabricated \_\_\_\_\_
- Meters on welding equipment operational
- Welding process \_\_\_\_\_
- Voltage — measured at the arc \_\_\_\_\_ Volts
- Current \_\_\_\_\_
- Amperage — measured at the arc \_\_\_\_\_
- Polarity setting of welding machine \_\_\_\_\_
- Weld size \_\_\_\_\_ in.
- Position for welding \_\_\_\_\_
- Electrode diameter \_\_\_\_\_ in.
- FCAW and GMAW: electrical stick out \_\_\_\_\_ in.
- Gas-shielded: type of gas and mix \_\_\_\_\_
- Gas shielded: shielding gas flow rate \_\_\_\_\_
- Travel speed \_\_\_\_\_ in/sec
- Bead width and thickness \_\_\_\_\_ in.
- Technique (stringer, weave beads) \_\_\_\_\_
- Minimum and maximum preheat temperature \_\_\_\_\_ deg F
- Minimum and maximum interpass temperature \_\_\_\_\_ deg F
- Number and location of passes  
(range of passes for groove welds) \_\_\_\_\_
- Any in-process nondestructive testing \_\_\_\_\_
- Peening requirements \_\_\_\_\_
- Layer thickness and width \_\_\_\_\_ in.

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Specimen Identification: \_\_\_\_\_

**FIELD INSPECTION**

**Welding (continued)**

**Verify conformance with WPS and document parameters used**

Difference between root pass and subsequent passes, if any \_\_\_\_\_

Post-weld heat treatment requirements \_\_\_\_\_

Type and material of backing bar, if used \_\_\_\_\_

Provisions for removal of backing bar, backgouging, and re-welding, if required \_\_\_\_\_

Tolerances for dimensional values (plate thicknesses, fit-up, etc.) \_\_\_\_\_ in.

Tolerances for procedural values (voltage, current, travel speed, etc.) \_\_\_\_\_

*Notes:*

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_