

**DSBROWN Production Joint Welding Procedure Specification (D1.5-02)**

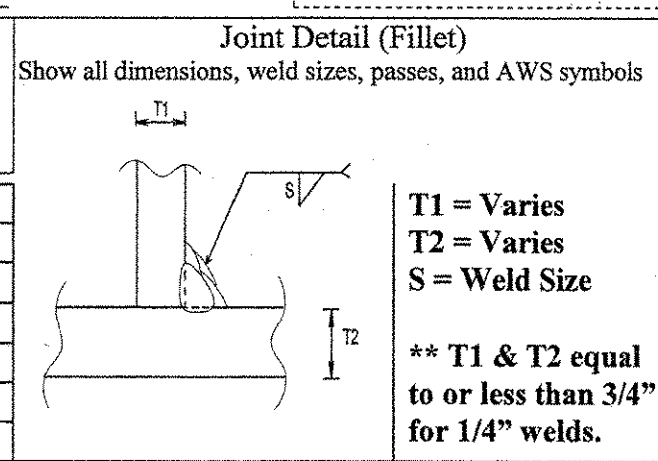
Procedure No: A-GF-01 Date Issued: 6-18-04 Revision No: 0 Rev. Date: \_\_\_\_\_

Contractor (Fabricator) D. S. Brown Company Prepared by: James R. Connor, Quality Assurance Manager

1. Non-Fracture Critical  Fracture Critical  WPS Expiration Date: \_\_\_\_\_
2. Qualified in accordance with: AWS D1.5-2002 (5.12.1)
- Referenced PQR No(s): PQR-GMAW-01(04)
- Referenced FWST No(s): PQR-GMAW-FWST-01A(03), PQR-GMAW-FWST-01B(03)
3. Material specification(s) ASTM A709 Gr. 36, 50, 50W For DOT Approval
4. Material Thickness (es) Unlimited
5. Welding process GMAW
6. Manual , machine , or semiautomatic
7. Position(s) of welding 1F, 2F
8. Filler metal specification AWS A5.18
9. Filler metal class and brand name ER70S-3 Lincoln SuperArc 50
10. Flux class & brand N/A, Type N/A
11. Shielding gas 90% Ar / 10% CO2 Flow rate 45 CFH
12. Single pass  Or multiple pass
13. Single arc  Or multiple arc
14. Welding Current DCEP
15. Polarity Reverse
16. Welding progression stringers
17. Root treatment Clean to bright sound metal or per AWS D1.5 (3.2.1 & 3.11)
18. Postheat treatment N/A
19. Calculated Heat Input (KJ/in) Min 15.3 KJ/in Max 24.9 KJ/in
20. Electrode extension (electrical stickout) 3/4"

VT TRANS RECEIVED  
 OK'D BY: JWC  
 JUN 26 2006  
 APPROVED: \_\_\_\_\_  
 DATE: 7-17-06

Weld size (in)	Pass No(s)	Electrode Size (in)	Welding Process Variables		Travel Speed (IPM)	Tensile Strength (ksi)
			AMPS/WFS*	VOLTS		
**1/4"	1	.045"	170-215	24-27	14-16	
5/16"	1-2	.045"	170-215	24-27	14-16	
3/8"	2-3	.045"	170-215	24-27	14-16	
7/16"	3-5	.045"	170-215	24-27	14-16	
1/2"	4-6	.045"	170-215	24-27	14-16	
5/8"	5-7	.045"	170-215	24-27	14-16	
3/4"	6-8	.045"	170-215	24-27	14-16	



\* Wire feed speed may be used along with amperage (include chart)

Prepared By: <u>James R. Connor</u> DSB QA Manager	Preheat and Interpass Temperature Chart		
	Base Metal Thickness range	Minimum Preheat (F)	Max Preheat & Interpass (F)
Project: _____	≤ 3/4"	50°F	450°F
DSB Job: <u>14032-1042</u>	>3/4" to ≤ 1.5"	70°F	450°F
	>1.5" to ≤ 2.5"	150°F	450°F
	>2.5"	225°F	450°F

Note: When this procedure is used for A709Gr50W materials, it shall be limited to 5/16" single pass or material be coated.

136 scup