

DSBROWN Production Joint Welding Procedure Specification (D1.5-08)

Procedure No: B-FSB-01 Date Issued: 3-28-08 Revision No: 01 Rev. Date: 11-11-09

Contractor (Fabricator) D. S. Brown Company Prepared by: Brad Streeter, Quality Assurance Manager

1. Non-Fracture Critical ☒ Fracture Critical ☐ WPS Expiration Date: 3-6-13

2. Qualified in accordance with: AWS D1.5- 2008 (5.13)

Referenced PQR No(s): PQR-FCAW-01-(08)

Referenced FWST No(s): N/A

3. Material specification(s) ASTM A709 Gr. 36, 50, 50W

4. Material Thickness (es) Unlimited

5. Welding process FCAW

6. Manual ☐ machine ☐ or semiautomatic ☒

7. Position(s) of welding 1G, 2G, (1F, 2F)

8. Filler metal specification AWS A5.20

9. Filler metal class and brand name E71T-1CH8 (UltraCore71C)

10. Flux class & brand N/A Type N/A

11. Shielding gas 100% 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 32.2 KJ/in Max 45.8 KJ/in

20. Electrode extension (electrical stickout) 3/4"

For DOT Approval

CCD CAL OR 551
FEB 28 2012
APPROVED BY: [Signature] DATE: 2/28/12

(E)&(S)	Weld size (in)	Pass No.(s)	Electrode Size (in)	Welding Process Variables		Travel Speed (IPM)	Travel
				AMPS/WFS*	VOLTS		
**1/4"	1	1/16"	257-295	26.1-29.5	11.4-12.5		
5/16"	1	1/16"	257-295	26.1-29.5	11.4-12.5		
3/8"	2-3	1/16"	257-295	26.1-29.5	11.4-12.5		
1/2"	3-4	1/16"	257-295	26.1-29.5	11.4-12.5		
5/8"	4-6	1/16"	257-295	26.1-29.5	11.4-12.5		
3/4"	5-7	1/16"	257-295	26.1-29.5	11.4-12.5		
7/8"	6-8	1/16"	257-295	26.1-29.5	11.4-12.5		
1"	7-9	1/16"	257-295	26.1-29.5	11.4-12.5		

Joint Detail (TC-P4-GF)

Show all dimensions, weld sizes, passes, and AWS symbols

** T1 & T2 equal to or less than 3/4" for 1/4" welds

T1 = 1/4" min.
T2 = Varies
(E) = S-1/8"
f = 1/8" min.
R = 0
α = 45°
S = size groove
(S) = size of reinforcing filler(if required) not to exceed 1/4" in corner & T jts.

For Butt Joints see AWS 2.14

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

Prepared By: [Signature] DSB QA Manager

Project: _____

DSB Job: 35029-1112

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

Preheat and Interpass Temperature Chart		
Base Metal Thickness range	Minimum Preheat (°F)	Max Preheat & Interpass (°F)
≤ 3/4"	50°F	450°F
>3/4" to ≤1.5"	70°F	450°F
>1.5" to ≤2.5"	150°F	450°F
>2.5"	225°F	450°F