



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

Procedure No: A-(MC)GSB-01 Date Issued: 9-28-04 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-(MC)GMAW-01(04)  
 Referenced FWST No(s): PQR-(MC)GMAW-FWST-01A(04), PQR-(MC)GMAW-FWST-01B(04)

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  CK'D BY: \_\_\_\_\_ CK'D BY: JWC  
 7. Position(s) of welding 1G, 2G, 1F, 2F JUN 0 3 2008  
 8. Filler metal specification AWS A5.18  
 9. Filler metal class and brand name E70C-6M Corex Metal-Core Maxim RESUBMIT \_\_\_\_\_ APPROVED: [Signature]  
 10. Flux class & brand N/A, Type N/A BY \_\_\_\_\_ DATE 6/9/08  
 11. Shielding gas 75% Ar / 25% 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 30.6 KJ/in Max 51.1 KJ/in  
 20. Electrode extension (electrical stickout) 3/4"

Weld Size (in)	Passes	Electrode Size (in)	Welding Process Variables		Travel Speed (IPM)	Travel Time (min)	Joint Detail (1C-P4-GF)	
			AMPS/WFS*	VOLTS			Show all dimensions, weld sizes, passes, and AWS symbols	
1/4"	1	.052"	265-320	31-34.5	13-16			
5/16"	1	.052"	265-320	31-34.5	13-16			
3/8"	1-2	.052"	265-320	31-34.5	13-16			
1/2"	3-4	.052"	265-320	31-34.5	13-16			
5/8"	4-6	.052"	265-320	31-34.5	13-16			
3/4"	5-7	.052"	265-320	31-34.5	13-16			
7/8"	6-9	.052"	265-320	31-34.5	13-16			
1"	7-10	.052"	265-320	31-34.5	13-16			

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

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

Prepared By: James R. Connor DSB QA Manager  
 Project: \_\_\_\_\_  
 DSB Job: 23215-1112-VT

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