Casco Bay Steel Structures, Inc.

WELDING PROCEDURE SPECIFICATION

Material specification ASTM 709 - Gr 50 50W

Welding process Submerged Arc welding (Power Wave)

Manual or machine Machine

Position of welding Flat

Filler metal specification A5-23

Filler metal classification F8A2-EN1L-N1L-HA

Flux Lincoln 980 - Elec. LA75

Shielding gas N/A Flow rate N/A

Single or multiple pass Single / Multiple

Single or multiple arc Single

Welding current Alternating

Polarity AC

Welding progression See Table

Root treatment Grind - Wire brush - To be Free of Slag - Rust - Moisture

Preheat and interpass temperature See Table

Postheat temperature As Req.

Heat Input Min 47.1 KJ/in Max 74.0 KJ/in P.Q.R - PW #1 - 67.3 KJ/in

Minimum Preheat and Interpass Temperature, °C [°F]

Welding Process (Base Metal)	To 20 mm [3/4 in] Incl.	Over 20 mm [3/4 in] to 40 mm [1-1/2 in] Incl.	Over 40 mm [1-1/2 in] to 65 mm [2-1/2 in] Incl.	Over 65 mm [2-1/2 in]
		Thickness of Thicker Part at Point of Welding, mm [in]		
SAW; GMAW; FCAW; SMAW (M270M [M270]) [A 709M/A 709] Gr. 250 [36], 345 [50], 345W [50W], HPS 345W [HPS 50W]	10 [50]	20 [70]	65 [150]	110 [225]
SAW; GMAW; FCAW; SMAW (M270M [M270]) [A 709M (A 709)] Gr. HPS 485W (HPS 70W), 690 [100], 690W [100W]P	10 [50]	50 [125]	80 [175]	110 [225]

For ECW - 100 F

150F 200F 300F

Variance A07
Rev. No. 9 - Pwr No. BRF-0046
Stockholder - CBSS H.I.

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OK'D BY _____ OK'D BY JWC

RESUBMIT _____ APPROVED ✓

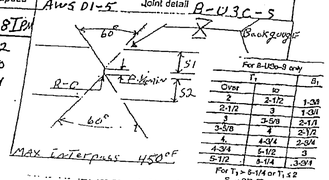
BY _____ DATE 9/9/10

WELDING PROCEDURE

Pass no.	Electrode size	Welding current Amperes	Welding current Volts	Travel speed
		827	38	28 IPM
As Req	5/32	910 To 944	41 To 35	32 To 24

Sec 5.13

AWS D1-5 Joint detail B-U3C-S



For B-U3c-S only

T_1 Over	to	B_1
2	2-1/2	1-3/4
2-1/2	3	1-3/4
3	3-5/8	2-1/4
3-5/8	4	2-1/2
4	4-3/4	2-3/4
4-3/4	5-1/2	3
5-1/2	6-1/4	3-3/4

For $T_1 > 6\text{-}1/4$ or $T_1 < 2$

$S_1 = 2/3\ (T_1 - 1/4)$

MAX Interpass 450°F

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. #1 - PW - STOPVT

Revision no. 1 - 8-3-10

Contractor Casco Bay Steel

Authorized By Paul E. Goodale

Date Jan 4 - 2010

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CWI 83100201

QC1 EXP. 10/01/16