Prepared by: WPSAmerica.com		WELDING PROC	CEDURE	Identification #	# DEMO-SMAW	
		SPECIFICATION	N (WPS)	Ref. Code	AWS D1.1	
Company Name: www.WPS Address: info@WPSAmerica	America.com a.com, Toll Fre	ee: 1 (877) WPS-WELD		PQR No.	PREQUALIFIED	
Process	SMAW	Process Type	Manual	Positions	F, H, V (up), OH	
Base Metals		Weathering Steels, ASTM A 588 (Cor-Ten B) or Steels in Group III of Table 3.1 of AWS D1.1				
Filler Metals		AWS A5.5: E8018-C1, E8018-C1 H4R				
Preheat/ Interpass Temp	., Min	Up to 20 mm (3/4): 10 °C (50 °F) ; Table 3.2 of AWS D1.1 on requirements for larger thicknesses				
Interpass Temp., N	Aax	N/A	Current/ Polarity	DCEP or AC		
Interpass Cleaning		Chip, File, Brush and/ or Grind	Weld Type	Partial Joint Per	netration Groove Weld	

Joint Details/ Joint Design Used/ Sketch:



RF≥1mm (<u>1</u> in) G=0
E=S T ≥ 6 mm (<u>1</u> in)

S(E)

G 60°

Table 3.4 of AWS D1.1						
Т	S	E min				
in	in	in				
$T = \frac{1}{4}$	he	<u>1</u> 8				
$T \le \frac{1}{2}$	d in t Ig	<u>3</u> 16				
T ≤ ³ / ₄	cified awir	1 4				
T ≤ 1- ½	spe	<u>5</u> 16				
T ≤ 2- $\frac{1}{4}$	As	<u>3</u> 8				

Welding Procedure:

T>=6 mm (1/4) S 1 As Required, see notes As Required, see notes 3.2 mm (1/8) 100-150 2.4 mm (3/32) 80-110 Notes, Technique or Code's rules: -Number of passes varies based on joint configuration, position, electrode size, travel speed, and weld technique. -First pass should be large enough to minimize the possibility of cracking. -F=Flat, H=Horizontal, V=Vertical, OH=Overhead -Maximum thickness of layers is 6 mm (1/4) for root pass and 5 mm (3/16) for subsequent layers. -The groove in a joint may be reversed where more practical or necessary. -Larger size electrodes usually applicable for root passes of the thicker material. -Smaller size electrodes usually applicable for root passes and/ or for thinner material. -Smaller size electrodes usually applicable for root passes and/ or for thinner material. Date: 04, 29, 2005 Revision (1) Date: 04, 29, 2005 Caution Note: Use of prequalified joint is not intended as a substitute for engineering judgment in the suitability of application to a welded assembly or connection. Date: 04, 29, 2005	Thickness (T) mm (in)	Weld Size ETT (E)	Side	Weld Layers	Pass No.	Filler Diameter mm (in)	Current Amps	Alternate Filler Diameters mm (in)	Current Amps
S 1 Required, see notes 3.2 mm (1/8) 100-150 4.0 mm (5/32) 140-200 Notes, Technique or Code's rules:	T>=6 mm (1/4)			As				2.4 mm (3/32)	80-110
S I see notes (1/8) 100-150 4.8 mm (3/16) 200-270 (Except OH & V) Notes, Technique or Code's rules: -Number of passes varies based on joint configuration, position, electrode size, travel speed, and weld technique. -First pass should be large enough to minimize the possibility of cracking. -First pass should be large enough to minimize the possibility of cracking. -First pass should be large enough to minimize the possibility of cracking. -F=Flat, H=Horizontal, V=Vertical, OH=Overhead -Maximum thickness of layers is 6 mm (1/4) for root pass and 5 mm (3/16) for subsequent layers. Originated by: -Larger size electrodes may be used for fill and/ or cap passes of the thicker material. -Smaller size electrodes usually applicable for root passes and/ or for thinner material. -Smaller size electrodes usually applicable for root passes and/ or for thinner material. Date: 04, 29, 2005 Revision (1) Authorized by: Jim Clark, Quality Manager Date: 04, 29, 2005 Caution Note: Use of prequalified joint is not intended as a substitute for engineering judgment in the suitability of application to a welded assembly or connection.				AS Required,	As Required.	3.2 mm		4.0 mm (5/32)	140-200
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