

CONSTRUCTION: JOINING OF PIPES BY WELDING

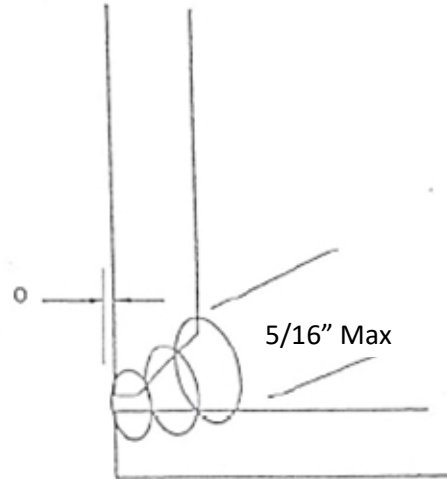
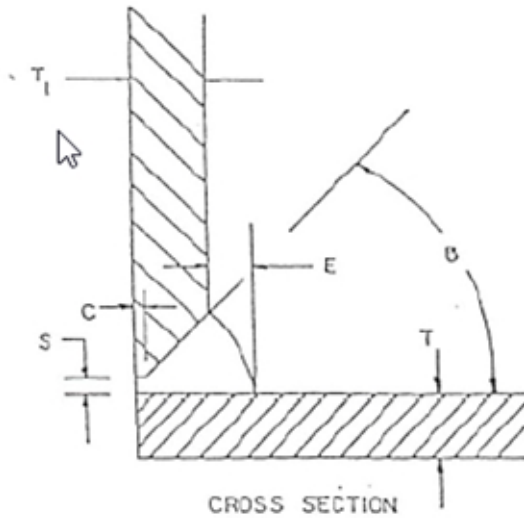
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STANDARD WELDING PROCEDURE SPECIFICATION #: 7B52F

- A. Process: Manual Electric Arc
- B. Material: Branch and Header X52 grade material
- C. Diameter and Wall Thickness: Branch and Header 8" thru 12", 0.250 thru 0.500 WT
- D. Joint Design: Standard Vee Groove FILLET WELD
- E. Filler Metal and Number of Beads: Electrode Classification Electrode E6010 & E8010 AWS Class A5.1-A5.5 Minimum of 3 Passes
- F. Electrical or Flame Characteristics: D.C. Reverse Polarity, Electrode Positive
- G. Position: Header on Horizontal-Branch 90 degrees and downward
- H. Direction of Welding: Down
- I. Number of Welders: 1
- J. Time Lapse Between Passes: Maximum of 5 minutes between stringer and hot pass; 3 minutes maximum when temperature is below 35° F
- K. Type of Line-up Clamp: None
- L. Removal of Line-up Clamp: None
- M. Cleaning: Taper grind starts and craters and flatten crown by grinding stringer bead, power buff all remaining passes
- N. Speed of Travel: String bead 10 inches per minute maximum
- O. *Preheat, Stress Relief: Maximum of 300°F, Minimum of 150°F Preheating shall be done with device or equipment which will heat entire circumference(s) in single application 2" back from pipe ends
- P. Notes: Tacks may be made with the branch in an upward position from the header and in an area where samples will not be taken.
- * X-rated pipe must be stress relief if the carbon content exceeds 32% or C+1/4 Mn exceeds 65%. Heating of X-rated pipe is limited to 600°F.

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Main wall thickness T 0.250 – 0.500
Branch wall thickness T 0.250 – 0.500
Bevel B 35deg +/- 5deg
Spacing S 1/32 / 3/32
Root Face C 1/16 + - 1/32
Toe Extension E 1/4 – 5/16

Bead No.	Electrode Diameter	Amperage Range	Voltage Range	Type Rod	Notes
1	1/8	90-120	22-35	E6010 5P+	
2	1/8	90-135	20-40	E8010	
3	5/32	90-140	20-40	E8010	
4	5/32	90-140	20-40	E8010	
5	*				

Bead No.	Notes
	Electrodes may be substituted within rod group AWS A5.1-A5.5
5	Additional passes may be made at same settings as bead #4

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WELD TEST REPORT (USE SEPARATE FORM FOR EACH WELD) **QUALIFYING TEST FOR 7852F**

DATE <i>11-18-10</i>		WELDER'S NAME <i>Jimmy Light</i>		SOCIAL SECURITY NUMBER <i>1723</i>	
LOCATION <i>Dallas</i>		NAME OF CONTRACTOR OR COMPANY <i>Burgett Bros</i>		RIGHT HANDED <input checked="" type="checkbox"/>	REQUALIFYING TEST <input type="checkbox"/>
POSITION <input type="checkbox"/> INCLINED <input checked="" type="checkbox"/> FIXED <input checked="" type="checkbox"/> HORIZONTAL		ELECTRIC ARC <input checked="" type="checkbox"/> INDOORS <input type="checkbox"/> OX-ACETYLENE <input type="checkbox"/> OUTDOORS		LEFT HANDED <input type="checkbox"/>	QUALIFYING TEST <input checked="" type="checkbox"/> LINE TEST <input type="checkbox"/>
PIPE SPECIFICATION <i>2" E-5L X 57</i>		PIPE MANUFACTURER <i>Totube</i>		WEATHER <i>CL</i>	TEMPERATURE <i>70</i>
MAKE OF WELDING MACHINE <i>Lin</i>		SIZE <i>200</i>		WELDING NOZZLE SIZE <i>N/A</i>	TIME OF DAY <i>Mid</i>
BRAND OF ELECTRODE <i>Lin</i>		MAKE OF OX-ACETYLENE APPARATUS <i>N/A</i>		WIND BREAK USED <i>N/A</i>	
		BRAND OF OX-ACETYLENE ROD AND SIZE <i>N/A</i>		OX-ACETYLENE PRESSURE FLOWING <i>N/A</i>	
		NUMBER OF PASSES - OX-ACETYLENE WELD <i>N/A</i>		WELDING PROCEDURE NO. <i>7852F</i>	

PIPE WELD	ELECTRODE TYPE AND SIZE		MACHINE SETTINGS		AMPERAGE RG.	VOLTAGE RG.
	COARSE	FINE				
STRINGER	<i>1/8 5PT</i>	<i>20-190</i>	<i>50</i>	<i>90-120</i>	<i>20-35</i>	
HOT PASS	<i>1/8 70T</i>	<i>20-190</i>	<i>60</i>	<i>90-135</i>	<i>20-40</i>	
FILLER (S)	<i>5/32 70T</i>	<i>20-190</i>	<i>70</i>	<i>90-140</i>	<i>20-40</i>	
CAP PASS	<i>5/32 70T</i>	<i>20-190</i>	<i>70</i>	<i>90-140</i>	<i>20-40</i>	

TENSILE TESTS	COUPON			CROSS SEC. AREA SQ. IN.	LOAD	% ELONG.	COMPUTED TENSILE PSI	REMARKS	ACCEPTED	REJECTED
	LOCATION	LENGTH	WIDTH							
1	<i>Extra Passes</i>			<i>same as #4</i>						
2										
3										
4										

BEND TESTS	COUPON LOCATION	TYPE OF BEND	REMARKS	ACCEPTED	REJECTED
	1			<i>Good Workmanship Appearance</i>	
2					
3					
4					

NICK-BREAK TESTS	COUPON LOCATION	REMARKS	ACCEPTED	REJECTED
	1	<i>N 1 1" Clean Metal 100% Pen</i>		<input checked="" type="checkbox"/>
2	<i>N 2 1/2" Clean Metal 100% Pen</i>		<input checked="" type="checkbox"/>	
3	<i>N 3 3/4" Clean Metal 100% Pen</i>		<input checked="" type="checkbox"/>	
4	<i>N 4 4" Small Slope 100% Pen</i>		<input checked="" type="checkbox"/>	

TEE WELD TEST	SIZE AND WALL THICKNESS OF MAIN		GAS PRESSURE ON MAIN PSIG		LOCATION OF FRACTURE WELD <input type="checkbox"/> NIPPLE <input type="checkbox"/> MAIN <input type="checkbox"/>		
	DID WELD CONTAIN:		DEPTH OF UNDERCUT		LENGTH OF UNDERCUT		
	<input type="checkbox"/> PINHOLES	<input type="checkbox"/> COLDROLL	<input type="checkbox"/> UNDERCUT				
REMARKS ON TEE WELD							

PIPE WELD	QUALIFIED <input checked="" type="checkbox"/> NOT QUALIFIED <input type="checkbox"/>	ELECTRIC ARC <input checked="" type="checkbox"/> OX-ACETYLENE <input type="checkbox"/>	TEE WELD	QUALIFIED <input type="checkbox"/> NOT QUALIFIED <input type="checkbox"/>	ELECTRIC ARC <input type="checkbox"/> OX-ACETYLENE <input type="checkbox"/>
TESTED BY	SIGNATURE <i>Ronald Taylor</i>		TITLE <i>Welder</i>		

QUALIFYING TEST FOR Procedure 7852F
Visual Insp. 11/18/10