

WELD PROCEDURE SPECIFICATION

W.P.S. # 89618

PROCEDURE SPECIFICATION

MATERIAL SPECIFICATION: *ASTM A36, A572-GR.50 A500-B & C*

WELDING PROCESS: *FLUX CORE ARC WELD - SS*

MANUAL OR MACHINE: *SEMI-AUTOMATIC*

POSITION OF WELDING: *2F*

FILLER METAL SPECIFICATION: *AWS A5.29*

FILLER METAL CLASSIFICATION: *E70TG-K2*

SINGLE OR MULTIPLE PASS: *MULTIPLE*

SINGLE OR MULTIPLE ELECTRODE: *SINGLE*

WELDING CURRENT: *DIRECT*

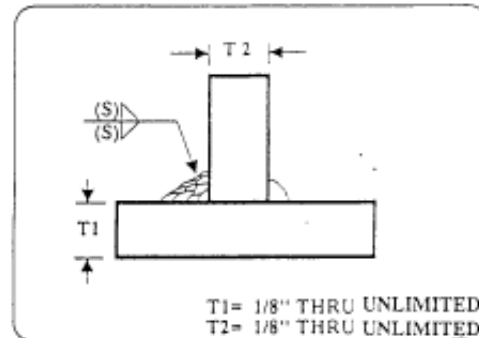
POLARITY: *NEGATIVE*

PREHEAT AND INTERPASS TEMP: *PER TABLE 4.3 MINIMUM*

IN ACCORDANCE WITH WELD PROCEDURE RECORD 89618
SINGLE OR MULTIPLE PASS FILLET WELD

PASS NO.	ELECT DIA	AMPS	VOLTS	TRAVEL SPEED INCHES
ALL AS REQ	7/64	414 to 506	26 to 30	7 - 13

ELECTRICAL STICKOUT: 1 1/2"



THIS PROCEDURE MAY VARY WITHIN THE LIMITATIONS OF VARIABLES GIVEN
IN SECTION 4 AND 5 OF A.W.S. D1.1, 1994 STRUCTURAL WELDING CODE

WELD PROCEDURE QUALIFICATION TEST RECORD

SINGLE AND MULTIPLE PASS FILLET WELDS

WELD PROCEDURE RECORD #: 89618

PROCEDURE SPECIFICATION

MATERIAL SPECIFICATION: *ASTM A572-50*
 WELDING PROCESS: *FLUX CORE ARC WELD*
 MANUAL OR MACHINE: *MANUAL*
 POSITION OF WELDING: *2-F*

FILLER METAL SPECIFICATION: *A5.29*
 FILLER METAL CLASSIFICATION: *E70TGK2*
 FILLER METAL TRADE NAME: *NR311NI*
 FLUX CLASSIFICATION: *N/A*
 SHIELDING GAS: *N/A*

SINGLE OR MULTIPLE PASS: *MULTIPLE*
 SINGLE OR MULTIPLE ELECTRODE: *SINGLE*
 WELDING CURRENT: *DIRECT*
 POLARITY: *NEGATIVE*
 PREHEAT AND INTERPASS TEMP: *50° - 550°*

WELDERS NAME:
 WELDERS S.S. NUMBER:
 WELDERS I.D.:

TEST DATE: *8-9-96*
 WITNESSED BY:
 A.W.S. QC-1 #:

VISUAL TEST RESULTS

VISUAL APPEARANCE: *ACCEPT*
 UNDERCUT: *NONE*
 PIPING POROSITY: *NONE*

U.T. TEST RESULTS

ULTRASONIC TESTING:
 U.T. TEST BY:
 ASNT U.T. LEVEL II

MACRO TEST RESULTS

MACRO TEST:
 1: *PASS* 2: *PASS*
 3: *PASS* 4: *N/A*
 TESTED BY:
 A.W.S. QC-1 #:

MATERIAL SPEC.

ASTM: *A572 GRADE 50*
 HEAT #: *376838*
 YIELD: *55,000 - 56,500*
 TENSILE: *81,000 - 80,500*
 ELONGATION @ 8": *24% - 21%*

IMPACT TEST RESULTS

ALL WELD METAL IMPACTS
 FT. LBS ABSORBED ENERGY
 TESTED AT 0° FAHRENHEIT
 1: *34* 2: *33* 3: *35*

AVERAGE: *34*

HEAT AFFECTED ZONE IMPACTS
 FT. LBS ABSORBED ENERGY
 TESTED AT + 70° FAHRENHEIT
 1: *45* 2: *47* 3: *44*

AVERAGE: *45.3*

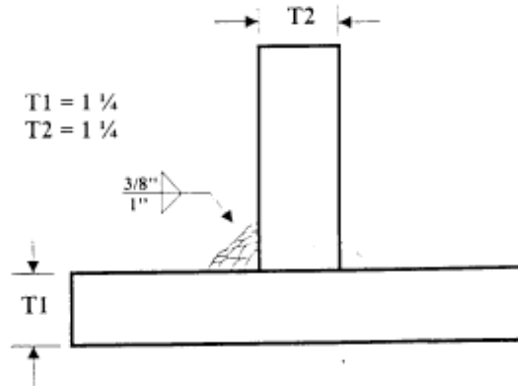
R.S. TENSILE TEST

ULTIMATE TENSILE STRENGTH
 1: *N/A*
 2: *N/A*

TESTED BY:

PASS NO	ELECTRODE DIAMETER	AMPS	VOLTS	TRAVEL SPEED I.P.M.
1	7/64	460	28	7
2				10
3	7/64	460	28	11
4				12
5				9
6				10
7				12
8				13
9				10
10				12
11				12
12	7/64	460	28	13

ELECTRICAL STICK OUT: *1 1/2"*



WELD PROCEDURE SPECIFICATION

W.P.S. # 94912

PROCEDURE SPECIFICATION

MATERIAL SPECIFICATION: *ASTM A36, A572-GR.50, A500-B*

WELDING PROCESS: *FLUX CORE ARC WELD - SS*

MANUAL OR MACHINE: *SEMI-AUTOMATIC*

POSITION OF WELDING: *1G*

FILLER METAL SPECIFICATION: *AWS A5.20*

FILLER METAL CLASSIFICATION: *E70T-7*

SINGLE OR MULTIPLE PASS: *MULTIPLE*

SINGLE OR MULTIPLE ELECTRODE: *SINGLE*

WELDING CURRENT: *DIRECT*

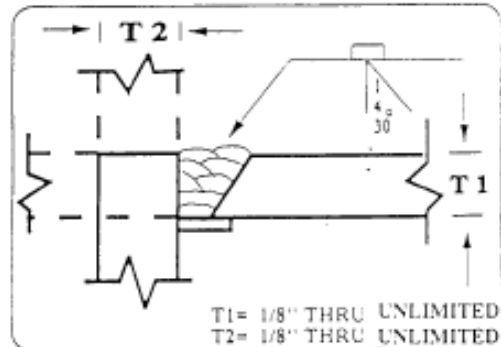
POLARITY: *NEGATIVE*

PREHEAT AND INTERPASS TEMP: *PER TABLE 4.3 MINIMUM*

IN ACCORDANCE WITH WELD PROCEDURE RECORD 94912
COMPLETE JOINT PENETRATION SINGLE BEVEL GROOVE WELD

PASS NO.	ELECT. DIA.	AMPS	VOLTS	TRAVEL SPEED INCHES
1 & 2	7/64	450 to 550	27-31	9-15
3 thru as req.	"	"	"	11-19

ELECTRICAL STICKOUT: 1 1/2"



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IN SECTION 4 AND 5 OF A.W.S. D1.1, 1994 STRUCTURAL WELDING CODE

WELD PROCEDURE QUALIFICATION TEST RECORD

P.O.R. # 94912

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION: *ASTM A572-50*
 WELDING PROCESS: *FLUX CORE ARC WELD-SS*
 MANUAL OR MACHINE: *MANUAL*
 POSITION OF WELDING: *I-G*

FILLER METAL SPECIFICATION: *AWS A5.20*
 FILLER METAL CLASSIFICATION: *E70T-7*
 FILLER METAL BRAND: *LINCOLN NR311*
 FLUX CLASSIFICATION: *N/A*
 SHIELDING GAS: *N/A*

SINGLE OR MULTIPLE PASS: *MULTIPLE*
 SINGLE OR MULTIPLE ELECTRODE: *SINGLE*
 WELDING CURRENT: *DIRECT*
 POLARITY: *NEGATIVE*
 PREHEAT AND INTERPASS TEMP: *150° min*

WELDERS NAME :
 WELDERS I.D.:
 TEST DATE:
 WITNESS BY:
 AWS QC-1 #:

TEST RESULTS

VISUAL APPEARANCE: *ACCEPT*
 UNDER CUT: *NONE*
 PIPING POROSITY: *NONE*

ULTRASONIC TESTING: *PASS*
 U.T. TEST BY:
 ASNT U.T. LEVEL II

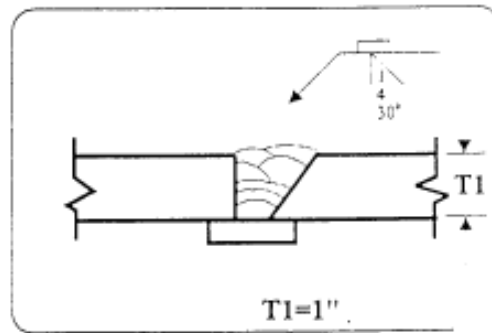
SIDE BEND TESTS:
 1: *PASS* 2: *PASS*
 2: *PASS* 3: *PASS*
 TESTED BY:
 AWS QC-1 #

ULTIMATE TENSILE STRENGTH
 1: *72,800 PSI*
 2: *72,700 PSI*

TESTED BY:
 TEST/FILE:
 L.A. R.R. #:

**WELD PROCEDURE RECORD # 94912
 COMPLETE JOINT PENETRATION SINGLE BEVEL GROOVE WELD**

PASS NO.	ELECTRODE DIAMETER	AMPS	VOLTS	TRAVEL SPEED L.P.M.
1	7/64	500	29	12
2				12
3				14
4				18
5				15
6				14
7				14
ELECTRICAL STICK OUT: 1 1/2"				



PRE - QUALIFIED WELD PROCEDURE SPECIFICATION

W.P.S. # PRE-Q- 1005

PROCEDURE SPECIFICATION

MATERIAL SPECIFICATION: *ASTM A36, A572-GR.50, A500-B & C*

WELDING PROCESS: *FLUX CORE ARC WELD - SS*

MANUAL OR MACHINE: *SEMI-AUTOMATIC*

POSITION OF WELDING: *1F 2F 3F 4F*

FILLER METAL SPECIFICATION: *AWS A5.20*

FILLER METAL CLASSIFICATION: *E71T-8*

SINGLE OR MULTIPLE PASS: *AS REQUIRED*

SINGLE OR MULTIPLE ELECTRODE: *SINGLE*

WELDING CURRENT: *DIRECT*

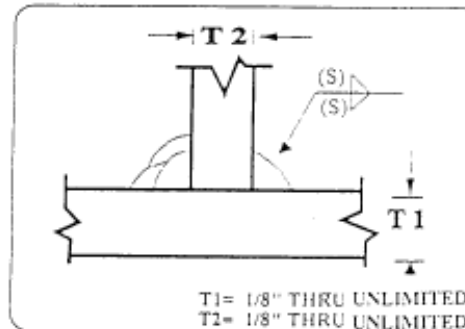
POLARITY: *NEGATIVE*

PREHEAT AND INTERPASS TEMP: *PER TABLE 4.3 MINIMUM*

AWS JOINT DESIGNATION FILLET
SINGLE OR MULTIPASS FILLET

PASS NO.	ELECT DIA	AMPS	VOLTS	TRAVEL SPEED INCHES
ALL	.072	203-247	18-21	6 - 9
AS	.072	203-247	18-21	10-15
REQ.	.072	230-280	20-23	6 - 9
	.072	230-280	20-23	10-15
	.072	284-346	21-25	6 - 9
	.072	284-346	21-25	10-15

ELECTRICAL STICKOUT: 1/2-1"



THIS PROCEDURE MAY VARY WITHIN THE LIMITATIONS OF VARIABLES GIVEN
IN SECTION 4 OF A.W.S. D.I.I. 1994 STRUCTURAL WELDING CODE