

Highway Safety Corporation
Glastonbury, CT
Welding Procedure Specification

Material specification A572 gr 50, A709 Gr 50
Welding process Gas Metal Arc Welding (GMAW)
Manual, semi-automatic, or automatic Semi-Automatic
Position of welding Flat (1F) or Horizontal (2F)
Filler metal specification AWS A5.18
Filler metal classification ER70S-3
Electrode and manufacturer Lincoln Electric Lincoln Weld L-50
Flux and manufacturer N/A
Shielding gas 85% Argon / 15% CO2 Flow rate 19-27 L / min
Single or multiple pass Single or Multiple
Single or multiple arc Single
Welding current DCEP
Polarity Reverse - electrode positive
Welding progression Stringers
Root treatment clean base metal
Preheat and interpass temperature base metal up to 3/4" (60°F); over 3/4 thru 1-1/2" (150°F); over 1-1/2" thru 2-1/2" (225°F)
Postheat treatment None
Electrode extension 3/4" ± 1/4"

WELDING PROCEDURE

Weld size	Pass no.	Electrode size	Welding parameters		Travel speed	Joint detail
			Amperes	Volts		
5/16"	1	0.062"	275 A ± 25	25 V ± 2	8-10 ipm	
7/16"	1 & 2	0.062"	↓	↓	8-10 ipm	

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This procedure may vary due to fabrication sequence, fit-up, pass size, etc. within the limitation of variables given in section 5 of latest edition AWS D1.5

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