

# Highway Safety Corporation

Glastonbury, CT

## Welding Procedure Specification

Material specification A572 gr 50, A709 Gr 50

Welding process Gas Metal Arc Welding (GMAW) Spray Transfer

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-6

Electrode and manufacturer Lincoln Electric Lincoln Weld L-56

Flux and manufacturer N/A

Shielding gas 86% Argon / 14% CO2 Flow rate 35-45 CFH

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" (50°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"	300 A ± 30	29 V ± 2	15 ipm ± 2	
7/16"	1 & 2	0.062"	↓	↓	15 ipm ± 2	

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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