

# 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" (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"         | 275 A<br>± 25      | 25 V<br>± 2 | 8-10 ipm     |              |
| 7/16"     | 1 & 2    | 0.062"         | ↓                  | ↓           | 8-10 ipm     |              |
|           |          |                |                    |             |              |              |

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CHK'D BY \_\_\_\_\_ OK'D BY JWC

APR 22 2010

RESUBMIT \_\_\_\_\_ APPROVED ✓

BY \_\_\_\_\_ DATE 05/02/10

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

WPS no. W-1730-A Fabricator Highway Safety Corporation  
 Revision no. 0 Authorized by Paul Radice  
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