

## 920-T-180 WELDING HIGHWAY ILLUMINATION MATERIALS

(Adopted 03-15-12)

The Standard Specifications are revised as follows:

SECTION 920, BEGIN LINE 256, DELETE AND INSERT AS FOLLOWS:

## **2. Welding**

The welding symbols and all information regarding location, type, size, welding sequence, and welding procedure specifications shall be shown on the ~~shop~~<sup>working</sup> drawings.

Welds shall be smooth and cleaned of flux and spatter in accordance with AWS procedure. Minimum preheats for welds shall be 100°F (~~38°C~~) for seams, and 225°F (~~107°C~~) for circumferential welds.

All welds shall be performed at the factory. Circumferential welds shall be backed-up welds with 100% penetration. Longitudinal welds shall have a minimum of 60% penetration except within 2 ft (~~0.6 m~~) of either side of the circumferential joint, the welds shall be backed-up and of 100% penetration. Base plate welds shall be 100% penetration. Circumferential welds and 100% penetration longitudinal welds shall be 100% ultrasonically inspected. The 60% penetration longitudinal welds shall be 100% ultrasonically or radiographically inspected for soundness. Welding shall be performed in accordance with ~~AWS D1.5~~ and 711.32. Weld filler shall provide Charpy V Notch equal to or greater than 20 ft lbs (~~27.1 J~~) at 0° F (~~-18°C~~).

### **a. Inspection**

The manufacturer shall provide quality control, QC, inspection. The inspector shall be an AWS certified welding inspector, CWI, in accordance with AWS ~~D1.5~~<sup>D1.1</sup>. The NDT inspector shall be an independent non-destructive-testing inspector, certified as level II in RT, UT, or MT, or all as applicable. Copies of the inspection reports and NDT reports shall be provided to the Engineer.

The method for testing full penetration and partial penetration welds by the independent welding inspector shall be the same as specified above.