

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STEEL GIRDER POT BEARING WELDING PROCEDURE SPECIFICATION (WPS) AWS D1.5

Specifications & Codes: NCDOT Standard Specifications/AASHTO/AWS D1.5, Section 2, 5 and 12

Material Specifications: ASTM A-36, A572, (A709-36, 50), (M270-GR250, 345) Unlimited Thickness

Welding Process: SMAW Manual or Semi- Automatic or Automatic: Manual

Filler Metal Specification: AWS A5.1 Classification: E-7018

Manufacturer: NCDOT Approved Electrodes Single or Multiple Pass both Position of Weld Flat, Horizontal

Welding Current: DC Polarity: Positive Progression: N/A

Root Treatment: N/A

Preheat Temp: 100° minimum Interpass: 450° maximum Post Heat: N/A

Pass Num.	Electrode Size	Welding Current		Travel Speed		Joint Details
		Amperes	Volts			
All	1/8"	90-150	20-23	6-9 ipm		SEE ATTACHMENT
	5/32"	120-200	21-24	6-10 ipm		
	3/16"	170-280	21-24	6-11 ipm		

PREHEAT	
Thickness	Min. Temp.
Up to 3/4"	100°
Over 3/4" to 1 1/2"	100°
Over 1 1/2" to 2 1/2"	150°
Over 2 1/2"	225°

COMMENTS:

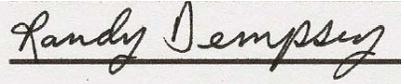
- 1. Bearing Assemblies shall not be lifted by their top plates. Any handling shall support the bearing unit from the underside.**
- 2. Bearings are to be protected from the dust during storage and erection.**
- 3. Remove keeper straps after the bearing has been positioned at its permanent location and prior to erection of the superstructure.**
- 4. When welding the top plate to the girder flange, use temperature indicating crayons or other suitable means to ensure that the bearing does not exceed 250°.**
- 5. Do not permit welding current to pass through the interior parts of the bearing. Arcing may occur which can permanently damage the bearing.**
- 6. Disassembly of the bearing unit is not permitted without written consent from the manufacturer. Unauthorized disassembly could result in bearing failure.**
- 7. The Contractor shall rotate the top plates of the bearing so that the alignment is parallel to the center line of the girder.**

WPS Description: Steel Girder Pot Bearing

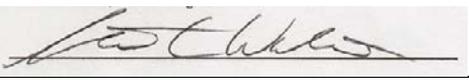
WPS #: 022811017

Revision #: 1

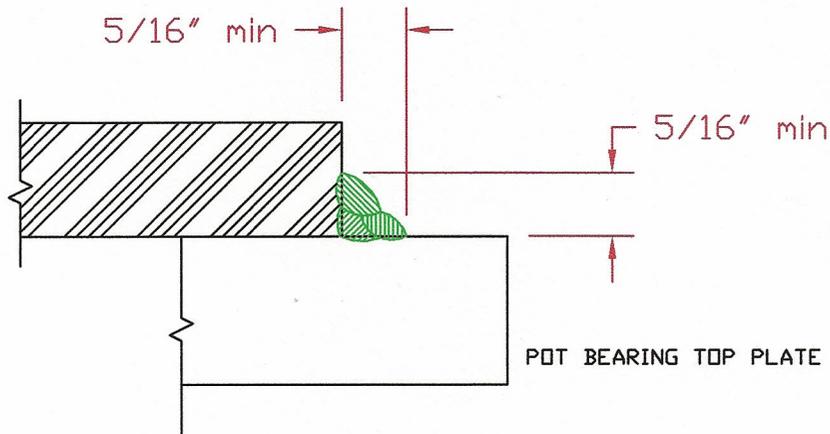
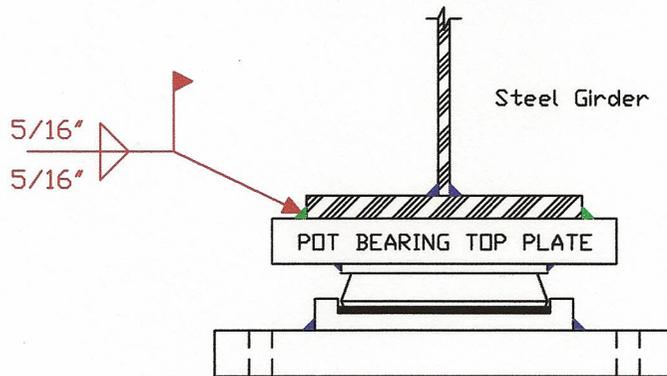
Written By: Randy Dempsey, CWI/CWE, TT IV

Signature: 

Authorized By: Steve Walton, Metals Engineer

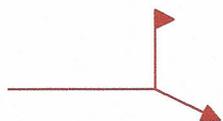
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WPS STEEL GIRDER POT BEARING 022811017 R1
JOINT DETAIL ATTACHMENT

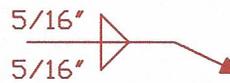


STEEL GIRDER
POT BEARING DETAILS

Weld Symbol definitions per AWS A2.4:2007



FIELD WELD SYMBOL



FILLET WELD, BOTH
SIDES with WELD SIZE

Illustrations for Pot Bearing.



As Received



Installed

NCDOT MATERIALS & TESTS UNIT (STEEL SECTION)