

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 74.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019903**Date Inspected:** 24-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 815**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Goodwin Steel, UK**Location:** Trentham, UK

CWI Name:	N/A	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes No N/A	
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes No N/A	
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes No N/A	
Approved Drawings:	Yes No N/A	Approved WPS:	Yes No N/A	
		Delayed / Cancelled:	Yes No N/A	
Bridge No:	34-0006	Component:	Cable Band	

Summary of Items Observed:

The following report is based on METS observations at Goodwin International, Trentham, UK on this date.

The QA Inspector observed measurement of the length of the suspender rope grooves on the cable band for East Panel Point 30, a B9 type 1 cable band. An attempt was made to measure the lengths, however, there was a significant deviation from the lengths reported in RFI-2337R00. Upon further investigation it was determined that the locations marked in the rope grooves as representing 180 degrees on one side deviated from the actual location by approximately 10 mm. Mr. A. Bentley, QC Director indicates that the cable band will be marked out and remeasured.

The QA inspector reviewed a copy of the Goodwin Steel Castings "Weld Excavation Map" for casting GG29425-2(R2), B5-1-F. The Weld Excavation Map was reviewed for accuracy and compliance with contract documents. This third repair cycle is a major repair and requires post weld heat treatment. Caltrans Lot Number B243-015-11 was assigned for tracking purposes.

The QA inspector reviewed a copy of the Goodwin Steel Castings "Weld Excavation Map" for casting GG29425-2(R3), B5-1-F. The Weld Excavation Map was reviewed for accuracy and compliance with contract documents. This fourth repair cycle is a major repair and requires post weld heat treatment. Caltrans Lot Number B243-016-11 was assigned for tracking purposes.

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The QA inspector reviewed a copy of the Goodwin Steel Castings "Weld Excavation Map" for casting GG29424-5(R3), B5-1-M. The Weld Excavation Map was reviewed for accuracy and compliance with contract documents. This fourth repair cycle is a major repair and requires post weld heat treatment. Caltrans Lot Number B243-017-11 was assigned for tracking purposes.

The QA inspector reviewed a copy of the Goodwin Steel Castings "Weld Excavation Map" for casting GG29443-2(R3), B11-2-F. The Weld Excavation Map was reviewed for accuracy and compliance with contract documents. This fourth repair cycle is a minor repair and does not require post weld heat treatment. Caltrans Lot Number B243-018-11 was assigned for tracking purposes.

The QA Inspector observed Cable Band Casting 5540-B7-2-F(2) completing post weld heat treatment. The strip chart indicates that the temperature was increased at less than 100 degrees C per hour until the required temperature of 630 degrees was reached. The temperature was maintained for 3 hours and the casting allowed to cool in still air.

The QA Inspector observed welding of Casting GG29425-1, Drawing Number 5540-B5-1-F. The welding was being performed by Mr. Dan McDonagh . Mr. McDonagh was using WPS04-102F4B Issue 5. The welding was being performed at 23 volts and 157 amps. The filler metal was 4mm AWS A5.1 E 7018-1. Welding was being performed in the 1G position.

The QA Inspector observed Casting GG29439-1, Drawing 5540-B10-1-F(1) being setup in machining center BTF3 to machine the flange faces. Setup was not completed this date.

The QA inspector completed a review of the the partial documentation package that documents completion of machining operations including weld repair and nondestructive testing of finished machined surfaces prior to shipment to South Staffs for coating for West Panel Point 16 (WPP-16). This is a B8 Type 1 cable band consisting of castings 5540-B8-1-M (2) and 5540-B8-1-F (8). The following apply to this cable band: ABF-RFI-1724R00, and ABF-RFI-1725R0. This package documents that the cable is in compliance with contract requirements except as identified in the Request for Information noted above.

The QA Inspector met with Goodwin International representative, Mr. C. Ryder. The QA inspector received a shipper for the cable band assemblies listed below shipping to South Staffs for further processing. This QA inspector has previously reviewed copies of the completed partial documentation packages for the cable bands shipping to South Staffs. The documents contained the following:

- Material Test Reports
- Nondestructive test reports
- Dimension verification reports
- Certificate of compliance from Goodwin Steel Foundry

The material appeared to be in conformance with contract documents with exceptions noted below.

- a) West Panel Point 16. The material appears to be in conformance with contract documents.

- b) East Panel Point 18. Dimensional Deviation: B8 Type 1 Female ID 3 - Panel Point 18 East Bound. Excess wall thickness. ABF-RFI-2254

- c) West Panel Point 14. Dimensional Deviation: B7 Type 1 Female/Male - Panel Points EPP12 & WPP14.

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ABF-RFI-2279

d) East Panel Point 12. Dimensional Deviation: B7 Type 1 Female/Male - Panel Points EPP12 & WPP14.

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e) East Panel Point 52. Dimensional Deviation: B7 Type 1 Male ID 11 - Panel Point 52 East Bound,

ABF-RFI-2252. Cable Band B7 Type 1 FEMALE - ID6 - Mechanical Test Results, ABF-RFI-2128



Summary of Conversations:

Relevant conversations are documented above

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Riegler,Randy

Quality Assurance Inspector

Reviewed By: Edmondson,Fred

QA Reviewer