

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-019837**Date Inspected:** 17-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 845**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 welding of Casting GG29419-1, Drawing Number 5540-B2-1-F. The welding was being performed by Mr. Dan McDonagh. Mr. McDonagh was using WPS 271 Revision 1. The welding was being performed at 15.7 volts and 190 amps. The heat input and the travel speed were being monitored. The filler metal was AWS A5.28 ER70S-A1 batch 14585. The shielding gas was Argon with a flow rate of 12 L/min. These are within the allowable range of the WPS. Welding was being performed in the 2G position.

West Panel Point 38, 5540-B10-2-F was observed under post weld heat treatment. The required post weld heat treatment temperature is 630 degrees +/- 20 degrees. The required temperature was attained and the temperature was ramped up at less than 100 degrees per hour. Controller B2513 was used for this operation. Thermocouple wire type K .711 mm batch number T1US29014 was used.

An attempt was made to complete post weld heat treatment of Casting GG29441-2, Drawing Number 5540-B10-2-F. This casting failed to reach the required temperature of 630 degrees +/- 20 degrees. Controller B2624 was being used. The thermocouple wire used was Type K .711 mm Batch No. T1US29014.

The QA inspector reviewed a copy of the Goodwin Steel Castings "Weld Excavation Map" for casting GG29424-1(R2), B5-1-M. 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 B243-011-11 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 GG29445-1(R5), B13-2-F. The Weld Excavation Map was reviewed for accuracy and compliance with contract documents. This sixth repair cycle is a minor repair and does not require post weld heat treatment. Caltrans Lot Number B243-010-11 was assigned for tracking purposes.

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 East Panel Point 12 (EPP-12). This is a B7 Type 1 cable band consisting of castings 5540-B7-1-M (4) and 5540-B7-1-F (9). The following apply to this cable band: ABF-RFI-1724R00, ABF-RFI-1725R0, and ABF-RFI-2279. This package documents that the cable is in compliance with contract requirements except as identified in the Request for Information noted above.



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
