

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010464**Date Inspected:** 25-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1735**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 Castings	

Summary of Items Observed:

The following report is based on METS Caltrans QA Inspector Mike Brcic's observations at Goodwin International, Trentham, England, UK on 25 November 2009.

REPAIR WELDING

This Inspector was on site to observe welding being conducted on castings by welders for Goodwin International. The following were repair welds noted originally by the Magnetic particle NDT Method.

* GG29417-7 (B1-1-F) Observed welder W. Whyte, welder ID W6, perform Gas Tungsten Arc Welding (GTAW) process using 2.4 mm diameter filler material, meeting AWS A5.28, in a 1G position. Parameters of WPS 271 Rev 1 (casting repair cycle is classified as a Minor), were verified and followed; actual Amp range during observation was 168, voltage 17. Temperature of casting was room temperature, 20°C (above 5°C minimum) interpass was below 235°C, confirmed with temperature sticks. Excavations in work were identified as #13, 14, 15, 16, per the Weld Excavation Map, upon completion a cap pass was placed over all weld repair areas. It should be noted that this QA inspector confirmed the size of the now, one, repair still does not exceed the area limitation of 65 centimeters squared for a Minor Repair.

This QA inspector witnessed Magnetic Particle Inspection (MPI) of Cable Band Castings, steps G2 and G3, per Manufacturing Inspection Test Plan (MITP) 12-02-2009. Areas under test were of newly machined areas called Joint and Spot faces, identified as areas C and D in MITP. Inspector witnessed inspection by Mr. Chris Fallows,

WELDING INSPECTION REPORT

(*Continued Page 2 of 2*)

Level II MT, of Goodwin Intl, performed on the following castings:

5540-B5-1-f (GG29425-1), machined Spot face and Joint face, areas C and D of MITP, no defects noted.

5540-B5-1-M (GG29424-2), machined Spot face and Joint face, areas C and D of MITP, no defect noted.

5540-B5-1-M (GG29424-1), machined Spot face and Joint face, areas C and D of MITP, no defects noted.

Method employed was Fluorescent Particle applied by aerosol, longitudinal magnetism induced by way of a contour probe, AC power. Particles were applied during induction of magnetism, making it the Continuous Method, as per Goodwin Procedure MT06-09-02 rev 4, ASTM E709 and contract documents.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with applicable contract documents.

Summary of Conversations:

No significant conversations took place that this Caltrans Inspector was a party to.

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, 1(510)385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Brcic,Michael	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer
