

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012734**Date Inspected:** 03-Mar-2010**Project Name:** SAS Superstructure**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Contractor:** Goodwin Steel, UK**OSM Arrival Time:** 805**OSM Departure Time:** 1620**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
Bridge No:	34-0006	Delayed / Cancelled:	Yes	No N/A
		Component:	Cable Band Castings	

Summary of Items Observed:

The following report is based on Caltrans METS QA Inspector Mr. Mike Brcic's observations at Goodwin International (GI), Trentham, UK on 3 March 2010.

SHOP REVIEW:

While this Caltrans QA Inspector was on site, GI, he had opportunity to review the progress of current castings located in the machine shop. The following castings and their current status, as they were observed this day by the Caltrans Inspector, is reflected here:

~ GG29450-2, a B16-M cable band half, located at station identified as BTD-4 is being machined at Joint Face, area D of Manufacturing Inspection and Test Plan (MITP) 12-02-2009 revision 3.

~ GG29441-4, B10-2-F cable band half, located at station known as BTC-3, is being machined at end faces, fulfilling step F1 of MITP, and machined to drawing 5540-B10-2-F specifications.

~ GG29429-9, a B7 cable band half, located at station identified as BTF-2, is being machined at joint faces, currently slots located at bolt bosses are being machined.

~ EPP10, GG29428-9 and GG29429-5, B7 cable band, has had a rough bore, from opposing end, machined per step I2 of the MITP.

~ GG29441-3, B10-2-F cable band half, is located on the marking off table, under scrutiny by Tony Godwin, dimensional technician of Goodwin International. It is observed by this QA Inspector, the fact that the casting surface, over 20% of it, had been marked up, due to surface irregularities, by foundry, for further dressing.

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~ WPP8, GG29448-1, GG29449-4, Band Clamp B15, located at station known as TSS-30, is being final machined on bore area known as area E of MITP.

While reviewing the shop activities it was noted that the B14-SBT's and SBB's had been machined and permanently etched with identification to replace the "cast on" raised identification removed by machining. After closer look, to verify heat/melt numbers, it was noticed that they were all wrong, heat numbers and "Ident #'s". All had been etched as Ident #1, and all SBT's had wrong Heat #'s. Upon bringing to the attention of Alan Bentley, the condition, as seen by the QA Inspector, Mr Bentley assured correction by grinding off the recessed lettering for re-stamping. The condition was also brought to the attention of the Caltrans Lead Inspector, Mr. Randy Riegler.

REPAIR WELDING

~ GG29418-1 (B2-1-M) This QA Inspector observed welder Dan McDonagh, DM596, performing Shielded Metal Arc (SMAW) process, 5mm, E7018-1 electrode, in the 1G, flat position. Parameters of WPS 04-0120F4B issue 5, were verified and followed, Amp average during observation was 205, voltage was 24.3. Temperature of casting exceeded 170° Celsius (preheat) and was below 371° Celsius for an interpass temperature, these were the actual temperature limits verified by the use of temperature melting sticks. Travel Speed of third pass was approximately 116 mm/min. Excavation in work was identified as #1R, weld build up of 75mm radius. Classified as "Major", on the approved Weld Excavation Map, and will, therefore, be post weld heat treated subsequently. Photo of finished repair is below.

NON DESTRUCTIVE TESTING

This QA inspector was made aware of Magnetic Particle Inspection (MPI) of Cable Band castings, that had occurred this day. QA Inspector reviewed the following reports of inspection by Mr. Chris Fallows, Level II MT, of Goodwin Intl.

~ 5540-B7-1-M/F, GG29428-3, GG29429-1, this B7 cable band was inspected per step M2 of the MITP, following all machining. No defects were 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 5, ASTM E709 and contract documents.

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

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Summary of Conversations:

See above for conversations that this QA 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
