

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-015680**Date Inspected:** 07-Jul-2010**Project Name:** SAS Superstructure**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Contractor:** Goodwin Steel, UK**OSM Arrival Time:** 815**OSM Departure Time:** 1730**Location:** Trentham, UK**CWI Name:****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 reviewed the following final document packages including the certificates of conformance upon completion of manufacture prior to shipment to the site:

The QA Inspector completed review of the corrected final documentation package for West Panel Point 102 (WPP-102). This is a B1 Type 1 cable band consisting of castings 5540-B1-1-M (8), and 5540-B1-1-F (5). The following are applicable to these castings: ABF-RFI-2047R0 for the male casting, and ABF-RFI-2157R0, ABF-RFI-1725R0 and ABF-RFI-1724R0 for the male and female castings. A Blue tag with SMR reference number S54-007-10 and Lot Number B243-187-10 was attached to the certificate of conformance.

The QA Inspector completed review of the final documentation package for West Panel Point 82 which is comprised of Castings GG29420-12, Drawing 5540-B3-1-M, and GG29421-1, Drawing 5540-B3-1-F.

ABF-RFI-2056 is identified as applicable to this cable band in the Certificate of Conformance. The RFI documents that it is applicable to This Cable Band and specifically to casting GG29421-12 (not either of the two castings that make up this cable band). Discussion with Mr. C. Ryder indicates that this is a typographic error in the RFI, and that this has been previously addressed with Goodwin Steel Castings. However, the RFI has not yet been corrected. This was originally identified and reported 14 June, 2010.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The inspector completed a review of the document package for the Cable Band for East Panel Point 90 (EPP-90) consisting of castings 5540-B3-1-M-16, GG29420, and 5540-B3-1-F-17, GG29421-17. ABR-RFI-2109 is applicable to this casting. This cable band is complete and staged to be shipped to the project, however the actions specified by ABF-RFI-2109 have not been completed.

The cable band for East Panel Point 110 which is comprised of Castings GG29416-4, Drawing 5540-B1-1-M, and GG29417-1, Drawing 5540-B1-1-F has been received from South Staffs and was sighted by this inspector. The documentation package was previously reviewed. It is complete and documents that this cable band is in compliance with project specifications. The following are applicable to these castings:, ABF-RFI-2013R0 for the male casting, and ABF-RFI -2157R0, ABF-RFI-1725R0 and ABF-RFI-1724R0 for the male and female castings. An orange tag with Lot Number B243-188-10 was attached to the certificate of conformance.

The cable band East Panel Point 70 which is comprised of Castings GG29422-10, Drawing 5540-B4-1-M, and GG29423-11, Drawing 5540-B4-1-F has been received from South Staffs and was sighted by this inspector. The documentation package was previously reviewed. It is complete and documents that this cable band is in compliance with project specifications. The following are applicable to these castings:, ABF-RFI-2158R0 for the female casting, and ABF-RFI -2157R0, ABF-RFI-1725R0 and ABF-RFI-1724R0 for the male and female castings. A Blue tag with SMR reference number S54-007-10 and Lot Number B243-187-10 was attached to the certificate of conformance.

The QA Inspector completed a review of the final document package for Cable Band West Panel Point 80 (WPP-80) consisting of castings 5540-B3-1-M-4, GG29420-4, and 5540-B3-1-F-10, GG29421-10. The following are applicable to these castings:, ABF-RFI-2163R0 for the male casting, and ABF-RFI -2157R0, ABF-RFI-1725R0 and ABF-RFI-1724R0 for the male and female castings. A Blue tag with SMR reference number S54-007-10 and Lot Number B243-187-10 was attached to the certificate of conformance.

The QA Inspector observed welding of Casting GG29441-1, Drawing Number 5540-B10-2-F. The welding was being performed by Mr. M. Edwards. Mr. Edwards was using WPS04-0120F4G Issue 6. The welding was being performed at 27.0 volts and 190 amps. The heat input was 0.88 KJ, and the travel speed was 350 mm/min. These were within the allowable range of the WPS and being monitored. The filler metal was AWS 5.20 E71T-1M. The shielding gas was Argon, 20% CO₂, 2% O₂. These are within the allowable range of the WPS. Welding was being performed in the 1G position. A localized preheat was used and the welder verified the preheat with a 1770 C temperature indicating crayon. Excavation Number 5, the through wall excavation was being welded. A backing bar was applied to the outside of the casting prior to commencement of welding.

SHOP REVIEW:

EPP-114, GG29436-8 and GG2947-8, a B9 Type 1 cable band was observed being machined at the Webster and Bennet machining center. The rough bore is being machined.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Item	Description	WBS	Dwg No.	Status
1	GG29419-1, 5540-B2-1-F Photographs of proposed weld repair area at 75mm radius.			



Summary of Conversations:

Mr. C. Ryder indicates that the first shipment of cable bands is scheduled to be shipped from Goodwin International on 23 July, 2010. Thirty four (34) cable bands are scheduled to be in that shipment.

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
