

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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005249**Date Inspected:** 26-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Japan Steel Works**Location:** Muroan, Japan**CWI Name:** Je-An You**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:** Tower, Jacking and Deviation Saddles**Summary of Items Observed:**

The following report is based on METS observations at Japan Steel Works (JSW) in Muroan Japan. Current work: Casting, machining and nondestructive testing of Saddles.

Fabrication Shop 4

T1-2 Casting

The QA inspector observed the in process casting repair welding on Tower Saddle casting T1-2. The welding was performed to build up the height of the ribs and stems in areas that were found to have excessive gap when fit to the fabricated base as shown on the approved drawings. The repair locations and repair details for this casting were submitted as Caltrans ABF-RFI-001453. The JSW welding personnel Daisuke Hirakawa, ID 08-3566 continued the welding of 8Y-12V. Kazuya Iwamoto, ID 07-4366 continued the welding of 8Y-10V. Tako Kawagishi, ID 08-5026 continued the welding of 8Y-7V. The repairs were performed utilizing Shielded Metal Arc Welding (SMAW) per the welding procedure specification (WPS) SJ 3012-1-2. Intertek Testing Services Quality Control (QC) inspector Mr. Je-An You monitored the welding parameters and heat control at periodic intervals. The minimum preheat temperature of 110°Celsius and maximum interpass temperature of 260° Celsius was verified to meet the WPS requirements by Mr. You. The SMAW welding average amperage and voltage by clamp type meter and travel speed were verified to be within the welding procedure specification parameter range. This data was entered into the QC inspector's daily log, identifying the location on a weld map. The work was not completed on this date and appeared to meet the minimum requirements of the welding procedure specification and contract documents.

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W2W1 Base

The QA inspector observed JSW welding personnel, Kiyotaka Koyanzgi, ID 08-5144 welding temporary supports devices on rib plates in preparation for assembly of T1-3 Base. The Shielded Metal Arc Welding (SMAW) process was utilized.

W2E2 Assembly

The QA inspector observed the welding of the West Deviation Saddle Base W2E3, rib plate n weld designation E2Y-5V, E2Y-8V and E2Y-16V. The welding was performed in between tack welds that had been welded and inspected visually and by magnetic particle examination previously. The JSW welding personnel Masao Yamashita, ID 73-4195 and Takatoshi Inoue, ID 08-5163 performed the welding utilizing the Shielded Metal Arc Welding (SMAW) process per the welding procedure specification (WPS) SJ-3011-4. The welding was performed in the Horizontal position. The filler metal utilized was identified as 4.2mm diameter, Class E9018-M-H4R, Brand name Hoballoy 9018-M. The welding parameters and heat control were monitored by Intertek Testing Services Quality Control (QC) inspector Mr. Je-An You at periodic intervals. The minimum preheat temperature of 160°Celsius and maximum interpass temperature of 260° Celsius was verified to meet the WPS requirements by Mr. You. This data was entered into the QC inspector's daily log, identifying the location on a weld map. The work was not completed on this date and appeared to meet the minimum requirements of the welding procedure specification and contract documents.

W2E3 Base

The QA inspector observed the in process welding of the structural steel plates for the West Deviation Saddle Base W2E3. The JSW welding personnel Toshiyuki Watamichi, ID 08-5169 continued the fill welding of joints E2Y-9V and E2Y10V in the horizontal position. The welding was performed utilizing the gas shielded flux cored arc welding process per the welding procedure specification (WPS) SJ-3011-3. Intertek Testing Services Quality Control (QC) inspector Mr. You monitored the welding parameters and heat control at periodic intervals. The work was not completed on this date and appeared to meet the minimum requirements of the welding procedure specification and contract documents.

Summary of Conversations:

There were general conversations with Intertek Testing Services Certified Welding Inspector Mr. Je-An You relative to the location of the welding and inspection personnel in the fabrication shop number 4 and as noted 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:	Lanz,Joe	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer
