

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002255**Date Inspected:** 04-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Le Feng**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 & OBG**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M, Orthotropic Box Girder (OBG) and Tower, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item	Description	WBS	Dwg No.	Status
1	Tower Skin Plate New Tower Shop Bay 1: Caltrans QA observed ZPMC performing submerged arc welding (SAW), tower skin plate SA18 (S) joining P824 (S), fill pass weld. The splice weld is identified as SSD1-SA18 A/E- 1A. The welder operator is identified as Ms. Xu Xiushui, welder stamp 040489, utilizing welding procedure WPS-B-T-2221-B-U3c-S. Caltrans QA measured current welding parameters at approximately 665 amps, 33.0 volts and 590mm/min (millimeters per minute) travel speed. Caltrans QA verified preheat and interpass temperatures during the welding of ASTM 709M, Grade 345F2 type materials, 45mm joining 45mm thicknesses. The preheat temperature prior to the start of welding measures more than 110 degrees Celsius but less than 230 degrees Celsius during maximum interpass temperature verification. Caltrans QA observed ZPMC QC/CWI inspector, Mr. Xu Le Feng monitoring the activities at the work station.	NA	NA	Welding
2	U-rib Deck Panel OBG Bay 1: Caltrans QA observed ZPMC shop workers performing fitup and tack welding, closed u-ribs to deck plate, assembly identified as DP192-001. The tack welders were identified as Mr. Sheng Qizhen, welder stamp #059401 and Mr. Tang Ke, welder stamp #062305, utilizing welding procedure WPS-B-T-2342-U2 (rib), revision 0. Caltrans QA observed ZPMC QC/CWI inspector, Mr. Chen Xi monitoring the welding activities at the workstation. The following digital pictures illustrated fit-up and tack welding in progress.	NA	NA	Welding

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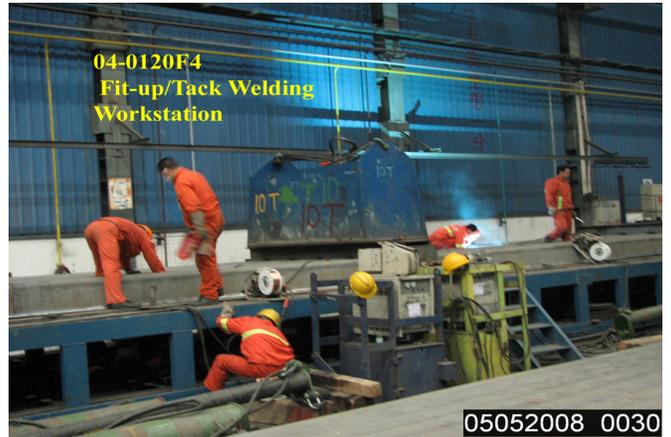
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# WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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3 Tower Skin Plate NA NA Weld Joint Prep

New Tower Shop Bay 1: Caltrans QA observed ZPMC workers grinding root backgouge on tower skin plate P262 joining P263.

4 Macroetch Samples

Production Monitoring Tests Macro Etches: Caltrans QA Inspector performed a visual inspection of the production monitoring tests (PMT) macro etch samples presented by ZPMC inspector, Mr. Zhang Jiadi and are identified as DP464-001. The PMT was welded on 05-03-08. All samples appeared to contain penetration greater than 80 percent. All data from the review was recorded in Caltrans tracking log. See Caltrans tracking log, dated 05-04-08 for additional information.

### Summary of Conversations:

As identified within the contents of this report.

### 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 Patrick Lowry, (858) 344-2712, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hasler, Mike Quality Assurance Inspector

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**Reviewed By:** Cuellar, Robert QA Reviewer