

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-004148**Date Inspected:** 21-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Chih-Ming**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:** various see below**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG assembly bay 2

QA received Non-Destructive Testing (NDT) notification document no. 001250 and 001253 from ZPMC QC and performed 10% verification Ultrasonic Testing (UT) and Magnetic particle Testing (MT) on the following weld joints:

Notification no. 001250 (UT)

SEG-021\*-006 and 005. All welds tested appeared to comply with AWS D1.5 2002 and the contract documents.

Notification no. 001253 (MT)

SSD12A-PP028 welds 067~104 and 107~126.

SSD12-PP028 welds 069~106 and 109~130. All welds tested appeared to comply with AWS D1.5 2002 and the contract documents.

QA observed ZPMC personnel flame straightening deck panel splice weld identified as SEG-023-004 DP-190A to DP-163A following the guide lines of approved standard flame straightening procedure defined in ZPMC

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WQCP section 11 and recorded on heat straightening report# HSR1(B)-3137. According to the report the distortion appeared to be caused by the welding process.

QA observed ZPMC personnel fitting north side floor beam section identified as FB-028-002 @ PP-034 on East OBG.

QA observed ZPMC personnel bolting scab plates to top side of T-stiffeners on side panels @ PP032 on west OBG.

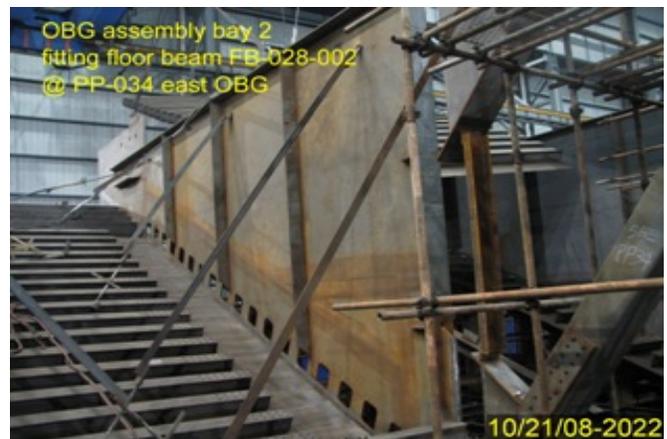
QA observed ZPMC qualified welding personnel SMAW 3G T-stiffener web joints on side panel identified as SP-074-001 joints 025 thru 030 following the guide lines of WPS-B-P-2214-B-U2. QC monitored the welding process continuously through out the evening. The welder ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 24.6 Amps: 153 Travel speed: 102mm/min  
Welder ID: 045196

QA noted that ZPMC has excavated a number of welds joining the longitudinal shear plate to the floor beams that appeared to have been rejected by ZPMC QC UT technicians in the area of PP-026 OBG section 4BW.

QA observed ZPMC personnel SAW deck panel joint SEG-031B-003 following the guide lines of WPS-B-T-2221-B-L2c-S-2. QC monitored the welding process continuously through out the evening. The welder ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 32.5 Amps: 590 Travel speed: 515mm/min  
Welder ID: 045265



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**Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

**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 Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hall,Steven	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer

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