

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007643**Date Inspected:** 05-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhoa Chen Sun**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 subassemblies and deck panel PMT**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 bay 6**

This QA observed ZPMC qualified welding personnel identified as 019006 perform SMAW welding on weld joints identified as CB202G-017-153~156 and CB202G-018-153~156. ZPMC QC CWI identified as Mr. Liu Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133.

This QA observed ZPMC qualified welding personnel identified as 058174 perform SMAW welding on weld joints identified as CB202G-019-153~156 and CB202G-020-153~156. ZPMC QC CWI identified as Mr. Liu Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133.

This QA observed ZPMC personnel flame straightening OBG side panel identified as SP3013A. The flame straightening appeared to be compliant with the applicable flame straightening procedure and the contract documents.

**OBG bay 9**

This QA observed ZPMC qualified welding personnel perform the Gas Metal Arc Weld (GMAW) and

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Submerged Arc Weld (SAW) 3 Rib PMT# 1 for deck panel DP-475-001 on gantry #1. ZPMC welding personnel commenced welding PMT #1 for gantry #1 at 0845 hrs for the above mentioned deck panel. QA observed ZPMC QC CWI identified as Mr. Sun Bo and American Bridge Fluor (ABF) QA inspector identified as Mr. Huang Wen Guang perform and accept the Visual Test (VT) of 500mm on each of the completed welds. This QA concurred that the welds appeared to comply with the latest revision of the PMT acceptance criteria. QA completed a U-Ribs PMT inspection report for this date and gantry. The report is on file in the Caltrans QA office. QA observed ZPMC QC UT technician perform and accept the UT inspection for Depth Of Penetration (DOP) on 500mm of each weld. Caltrans QA waived the right to perform DOP UT verification on this PMT. QA laid-out, match marked and stenciled 5 macro-etch samples on each PMT rib for a total of 15 samples. The welding parameters and welder ID's for Gantry 1 PMT #1 are as follows:

### GMAW

Volts: 30.7 – 31.1    Amps: 357 – 374    Travel speed: 525mmpm

### SAW

Volts: 24.8 – 25.7    Amps: 677 – 690    Travel speed: 519mmpm

### Welder ID#'s

Weld joint 1: 059403

Weld joint 2: 201788

Weld joint 3: 059418

Weld joint 4: 059378

Weld joint 5: 059445

Weld joint 6: 059468

ZPMC QA identified as Mr. wang Lu contacted this QA to examine the 15 macro-etch samples cut from the above mentioned PMT panel at 15:00 hrs. All of the macro-etch samples examined appeared to meet the requirements of the contract documents. QA logged the results in on the Team China Server.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



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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 Eric Tsang (15000422372), 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>	Prue,Erik	QA Reviewer

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