

**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-010073**Date Inspected:** 13-Sep-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:** Chen Ying Xin, Du Zhi Qun.**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**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad 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:

Bay 10 South Tower Lift 3 DE corner seam (external)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT reports for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

SSTL3-1B/K-85B

Bay 10 South Tower Lift 4 Gusset Plate between Stiffeners on skin D

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SSD1-FDSA4-1B/C-51~58, 61~68

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 10

## STRUT PLATE

SMAW welding of weld joint 12A located on ND1-A6002-13.

Welder is identified as 050289. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-B-T-2212-Tc-U5b.

SMAW welding of weld joint 27 located on ED1-A6003-1.

Welder is identified as 037779. ZPMC QC is identified as Mr. Chen Ying Xin.

The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

## SOUTH TOWER INTERIOR SPLICE PLATE

FCAW welding of weld joint 3A located on SSD1-SPSA3-56.

Welder is identified as 040345. ZPMC QC is identified as Mr. Du Zhi Qun.

The welding variables recorded by QC appeared to comply with WPS-B-T-2231-Tc-U5-F-1.

FCAW welding of weld joint 3B located on SSD1-SPSA3-70.

Welder is identified as 053870. ZPMC QC is identified as Mr. Du Zhi Qun.

The welding variables recorded by QC appeared to comply with WPS-B-T-2231-Tc-U5-F-1.

FCAW welding of weld joint 2B located on SSD1-SPSA3-4.

Welder is identified as 048784. ZPMC QC is identified as Mr. Du Zhi Qun.

The welding variables recorded by QC appeared to comply with WPS-B-T-2231-Tc-U5-F-1.

## NORTH TOWER LIFT 4 SKIN E DOUBLER PLATE

FCAW welding of weld joint 5 located on NSD1-FESA4-3B/F.

Welder is identified as 037907. ZPMC QC is identified as Mr. Wang Hao.

The welding variables recorded by QC appeared to comply with WPS-B-T-4332-Tc-P4-F-1.

## TOWER ASSEMBLY DOCK

SMAW welding of guiding plate on the top of shaft on BC and CD corner of East Shaft Lift 1 for erection purpose.

Welders are identified as 040611 and 049099. ZPMC QC is identified as Mr. Hegen. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-U5b.

SMAW welding of guiding plate on the top of shaft on BC and CD corner of South Shaft Lift 1 for erection purpose. Welders are identified as 040491 and 066179. ZPMC QC is identified as Mr. Yang Ming Ming. The

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welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-U5b.

During random Visual Inspection of doubler plate of north tower lift 4, weld NSD1-FASA4-1A/E-8 located in the Tower Bay no.10, Caltrans Quality Assurance (QA) Inspector observed a crack like indication throughout the tack weld. This area was not tested and accepted by ZPMC NDT personnel. The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### 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 Jim Simonis - 134-7246-3441, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Umesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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