

**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-014410**Date Inspected:** 19-May-2010**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:** Yu Dong Ping  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

**CWI Present:** Yes No  
**Rod Oven in Use:** Yes No N/A  
**Weld Procedures Followed:** Yes No N/A  
**Verified Joint Fit-up:** Yes No N/A  
**Approved WPS:** Yes No N/A  
**Delayed / Cancelled:** Yes No N/A

**Bridge No:** 34-0006**Component:** Tower Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

**TOWER TRIAL ASSEMBLY**

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW):

Weld joint # 26 located on East Tower Lift-1 Shear splice plate ESD1 – A111B/H. Welder is identified as 056482.

ZPMC Quality Control (QC) Inspector is identified as Wang Chuang Xin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2113 – Tc – P5.

Flux cored Arc Welding (FCAW):

Weld joint # 05 located on East Tower Lift-1 doubler strut plate P475 – E. Welder is identified as 053316. ZPMC

Quality Control (QC) Inspector is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4331 – Tc – P4 – F.

**BAY#10**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No.

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## WELDING INSPECTION REPORT

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### Visual Inspection Testing (VT)

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower Component. The identified component and weld designations reviewed are as follows:

NORTH TOWER LIFT – 4, 143M DIAPHRAGM WITH SKIN 'A' FITLUG

NSTL4 – 3K/L – 36~53; 101~114

NORTH TOWER LIFT – 4, 143M DIAPHRAGM WITH SKIN 'B' FITLUG

NSTL4 – 3K/L – 54~57; 115~118

NORTH TOWER LIFT – 4, 143M DIAPHRAGM WITH SKIN 'C' FITLUG

NSTL4 – 3K/L – 63~69; 151; 146; 147; 150; 124~131; 152; 153; 156; 157

NORTH TOWER LIFT – 4, 143M DIAPHRAGM WITH SKIN 'D' FITLUG

NSTL4 – 3K/L – 6~19; 132~135; 75~85; 87

NORTH TOWER LIFT – 4, 143M DIAPHRAGM BACKFILL & FITLUG, DE CORNER

NSTL4 – 3K/L – 22; 24; 89; 90; 20; 21; 23; 86; 88; 91

### Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

NORTH TOWER LIFT – 4, 143M DIAPHRAGM WITH SKIN 'A' FITLUG

NSTL4 – 3K/L – 36~53

NORTH TOWER LIFT – 4, 143M DIAPHRAGM WITH SKIN 'B' FITLUG

NSTL4 – 3K/L – 115~118

NORTH TOWER LIFT – 4, 143M DIAPHRAGM WITH SKIN 'C' FITLUG

NSTL4 – 3K/L – 63~69; 124~131

NORTH TOWER LIFT – 4, 143M DIAPHRAGM WITH SKIN 'D' FITLUG

NSTL4 – 3K/L – 6~19; 132~135

NORTH TOWER LIFT – 4, 143M DIAPHRAGM BACKFILL & FITLUG, DE CORNER

NSTL4 – 3K/L – 22; 89; 21; 88

This QA Inspector observed the following work in progress:

### Flux cored Arc Welding (FCAW):

Weld joint # 22 located on Bearing Stiffener of Shear plate ED1 – A27B/E. Welder is identified as 057244.

ZPMC Quality Control (QC) Inspector is identified as You Qi Guo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2331 – Tc – P4 – F.

(See attached photo)

Weld joint # 47 located on Bearing Stiffener of Shear plate ED1 – A27B/E. Welder is identified as 053869.

ZPMC Quality Control (QC) Inspector is identified as You Qi Guo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2331 – Tc – P4 – F.

BAY#11

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# WELDING INSPECTION REPORT

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This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW):

Weld joint # 6B located on Tower Strut ND1 – STSA4 – 6– 143M – 2. Welder is identified as 044541. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – Tc – U5b – 1.

Weld joint # 9B located on Tower Strut ND1 – STSA4 – 10 – 119M – 1. Welder is identified as 041271. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2212 – TC – U5b. (See attached photo)

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



### Summary of Conversations:

No Relevant Conversations.

### 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 Skyler Guest - 15000422360, who represents the Office of Structural Materials for your project.

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**Inspected By:** Kumar,Sandeep

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer