

**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-012920**Date Inspected:** 12-Mar-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:** Mr. Zhao 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:** Tower**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Nagalingam Pandaram Pillai was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing:-

TOWER TRAIL ASSEMBLY AREA:-

EAST SHAFT LIFT 1:-

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% 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 East Shaft Lift 1 Bearing Stiffeners on Skin C and D. The weld designations reviewed are as follows:-

ESD1-SA296B/E-25,27,30,35

ESD1-SA294F/G-30,32,35,38,41,44,47,50,53,56,59,62,65,68,71,75.

This QA inspector, observed, during random Visual Inspection (VT) at Outside East Shaft Lift 1, interior bearing stiffener notification no: 005319, welding distortion of approximately 6 mm on Skin C interior bearing stiffener. The weld designation of distortion were found in ESD1-SA294F/G -47,53,56,62.

NORTH SHAFT LIFT 1:-

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested

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and accepted by ZPMC Quality Control Personnel. This QA Inspector generated an MT report for this date. The member is identified as North Shaft Lift 1 Bearing Stiffeners on Skin E. The weld designations reviewed are as follows:-

NSD1-SA76F/H-28,32,35,38,41,44,47,50,53,56

IN PROCESS INSPECTION:-

TOWER TRAIL ASSEMBLY AREA:-

EAST SHAFT LIFT 1:-

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: ESD1-SA237D/F-10 located on Skin A Bearing Stiffener. Welder is identified as 042218.ZPMC QC is identified as Mr. Xing shi shun. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: ESD1-SA233-33 located on Skin B Bearing Stiffener. Welder is identified as 066683.ZPMC QC is identified as Mr. Xing shi shun. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: ESD1-SA233-20 located on Skin B Bearing Stiffener. Welder is identified as 042218.ZPMC QC is identified as Mr. Xing shi shun. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: ESD1-SA294F/G-11 located on Skin C Bearing Stiffener. Welder is identified as 040713.ZPMC QC is identified as Mr. Yang Ming Ming. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: ESD1-SA227F/H-19 located on Skin E Bearing Stiffener. Welder is identified as 040723.ZPMC QC is identified as Mr. Yang Ming Ming. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: ESD1-SA296B/E-10 located on Skin D Bearing Stiffener. Welder is identified as 040759.ZPMC QC is identified as Mr. Yang Ming Ming. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

WEST SHAFT LIFT 1:-

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: WSD1-SA279-22 located on Skin B Bearing Stiffener. Welder is identified as

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040704.ZPMC QC is identified as Mr. Fu Wei min. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: WSD1-SA653D/F-10 located on Skin A Bearing Stiffener. Welder is identified as 049541.ZPMC QC is identified as Mr. Fu Wei min. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: WSD1-SA279-28 located on Skin B Bearing Stiffener. Welder is identified as 040609.ZPMC QC is identified as Mr. Fu Wei min. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

SOUTH SHAFT LIFT 1:-

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: SSD1-SA17F/G-50 located on Skin C Bearing Stiffener. Welder is identified as 054069.ZPMC CWI is identified as Mr. Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: SSD1-SA17F/G-54 located on Skin C Bearing Stiffener. Welder is identified as 053116.ZPMC CWI is identified as Mr. Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: SSD1-SA40B/E-51 located on Skin D Bearing Stiffener. Welder is identified as 040261.ZPMC QC is identified as Mr. Liu wei zhao. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: SSD1-SA40B/E-45 located on Skin D Bearing Stiffener. Welder is identified as 057266.ZPMC QC is identified as Mr. Liu wei zhao. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: SSD1-SA18-22 located on Skin B Bearing Stiffener. Welder is identified as 052075.ZPMC QC is identified as Mr. Liu wei zhao. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: SSD1-SA18-29 located on Skin B Bearing Stiffener. Welder is identified as 057180.ZPMC QC is identified as Mr. Liu wei zhao. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

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



### Summary of Conversations:

No Relevant Conversation.

### 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:** Pillai, Pandaram

Quality Assurance Inspector

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**Reviewed By:** Clifford, William

QA Reviewer