

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019750**Date Inspected:** 15-Dec-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:** Liu Yan Hua**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:** OBG**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:

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

BAY 14, OBG 14W (NWIT # 7791)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SP3144C-001-042, 047, 052, 057, 062

BAY 14, OBG 13AE (NWIT # 7788)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

SEG3007F-038
SEG3007G-046, 047
SEG3007J-034

Bay 14

SEGMENT 13AW

Welding by FCAW process of weld joint SEG3013AA-087 joining Floor Beam (FB) 3202A to Edge Plate (EP) 3020E at Panel Point (PP) 120 of segment 13AW. Welder is identified as 047866. ZPMC QC is identified as Mr. Li Ping. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

Welding by FCAW process of weld joint SEG3013AA-088 joining Floor Beam (FB) 3202A to Edge Plate (EP) 3020F at Panel Point (PP) 120 of segment 13AW. Welder is identified as 202122. ZPMC QC is identified as Mr. Li Ping. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

Welding by FCAW process of weld joint SEG3013Q-235 joining Floor Beam (FB) 3178A to I-rib of Edge Plate at Panel Point (PP) 118 of segment 13AW. Welder is identified as 066421. ZPMC QC is identified as Mr. Li Ping. The welding variables recorded by QC appeared to comply with WPS-B-T-2133-ESAB.

During random in process inspection this QA inspector observed that ZMPC NDT personnel marked several of UT rejectable indications on the weld joints SEG3013Y-333 and SEG3013Y-324 at Panel Point (PP) 119 and 119-1500 of segment 13AW. Attached photograph provide additional details.

SEGMENT 13BW

Repair welding by SMAW process of weld joint SEG3014G-113 (B-WR18627) joining I-rib stiffener of side panel to Floor Beam (FB) 3211 at Panel Point (PP) 121 of segment 13BW. Welder is identified as 045196. ZPMC QC is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G(3F)-FCM-REPAIR.

SEGMENT 13CW

Repair welding by SMAW process of weld joint SEG3015L-101 (B-WR19013) joining I-rib stiffener of side panel to Floor Beam (FB) 3223 at Panel Point (PP) 122.5 of segment 13CW. Welder is identified as 066179. ZPMC QC is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G(3F)-FCM-REPAIR.

SEGMENT 14W

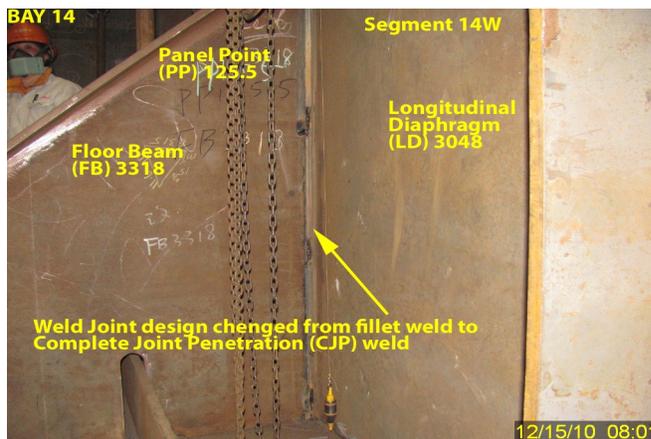
During random in process inspection this QA inspector observed ZPMC personnel were performing fit up for the Floor Beam (FB) 3318 to Longitudinal Diaphragm (LD) 3048 at Panel Point (PP) 125.5 of segment 14W. As per shop drawing the weld details shows the weld design as fillet weld but due to fabrication error ZPMC change the weld joint design as Complete Joint Penetration (CJP) weld. This issue has been discussed with ZPMC QC Mr. Li Ming Yang and CT lead QA. ZPMC QC Mr. Li Ming Yang informed this QA that they will submit the required documents to engineer for approval. Attached photograph provide additional details.

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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 Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Patterson,Rodney

QA Reviewer