

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-022037**Date Inspected:** 17-Mar-2011**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. An Qing xiang / Mr. Sha zhi	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:	Orthotropic Box Girder (OBG)	

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG Assembly bay- 14.

The following Non Destructive Testing (NDT) Inspection was carried out as per the ZPMC submitted Notification No.08565.

Ultrasonic Testing (UT)

This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated a UT report for this date. The members are identified as OBG Saddle support beam weld Components. Total number of welds UT Tested: 35 No.s. The weld designations inspected were as follows:

1. SA3173-001-007,009,015,017,011,013,019,021,027,029,023,025,031,33,039,041,035,037.
2. SA3174-001-007,009,015,017,011,019,021,027,029,023,025,031,33,039,041,035,037.

This QA Inspector randomly observed the following work in progress:

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Shielded Metal Arc Welding (SMAW) welding of weld joint identified as SEG3015G-001. Welder is identified as 067707. ZPMC Quality Control (QC) is identified as Mr. Wang xiang pin. The welding variables recorded by QC personnel observed appeared to comply with Welding Procedure Specification (WPS):
WPS-B-P-2213-B-U2-FCM-1.

SMAW welding of weld joint identified as SEG3015D-001. Welder is identified as 045196. ZPMC Quality Control (QC) is identified as Mr. Wang xiang pin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2213-B-U2-FCM-1.

SMAW welding of weld joint identified as SEG3020AW-092. Welder is identified as 037779. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2212-TC-U4b-FCM-1.

SMAW repair welding of Anchor plate bearing block (APBB) Casting blocks identified as APBB1-094-2,065-13, 108-7,065-6 and 121-13. Welder is identified as 067765. ZPMC Quality Control (QC) is identified as Mr. Shi lei. The welding variables recorded by QC personnel observed appeared to comply with WPS:
WPS-casting-SMAW-1G-repair-1. The repair welding was being performed as per Critical Welding Repair Report (CWR) No: B-CWR2857. These blocks was previously rejected by ZPMC QC MT Technicians personnel and recorded on MT report B787-MT-37137. See attached photos for further details.

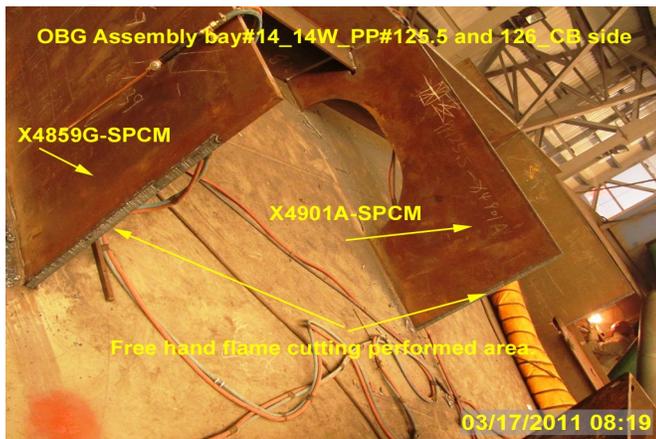
Flux Cored Arc Welding (FCAW) welding of weld joint identified as SEG3020L-107. Welder is identified as 067949. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-T-2233-ESAB.

During Quality Assurance random in-process observations of the fabrication of OBG Lift 14 west deck panel diaphragms X4901A and X4859G at Panel point no.125.5 and 126 Cross beam side, this QA observed ZPMC personnel have performed Free Hand Flame Cutting for more than 300mm in length. Access to the areas being cut were not restricted due to cross sectional geometry and or position in so far as mechanical guides could not be used. The approximate cut length as measured by this QA was 900mm. The deck panel diaphragm plates are identified as X4901A and X4859G. The deck panel diaphragm are designated as Seismic Performance Critical Material (SPCM) on the approved drawing. The affected CJP weld joints are identified as SEG3020R-015 and SEG3020T-278. The deck panel diaphragm plate materials mentioned above are 25 mm in thickness. This QA informed to ZPMC QC identified as Mr. Zhulin and CWI identified as An Qing xiang. ZPMC QC and CWI informed this QA Inspector that in future free hand cutting work shall be performed as per the contract documents and AB/F submitted procedure identified as ABF Free Hand Flame Cutting Procedure, Dated 01-27-09. See attached photos for further details. This QA Inspector also informed to shop Lead QA Inspector of this issue. This QA Inspector did not generate an Incident Report for the above issue as per the shop Lead QA Inspector's instructions.

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

WELDING INSPECTION REPORT

(Continued Page 3 of 4)



Summary of Conversations:

No significant conversations were reported on this date.

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.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer
