

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-018833**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:** Mr. Chen xi**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:

BAY- 1

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07788.

Visual Testing (VT)

This QA performed Random VT of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. The members are identified as OBG Cable tray support (miscellaneous) plate weld Components. Total number of components VT Tested: 35 No's. The component designations are review as follows:

1. SA3333A, B, C, D, H, J
2. SA3352A, B, C, D, G, H
3. SA3045A, B
4. SA3094A
5. SA3095A

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6. SA3366A
7. SA3099A
8. SA3100A

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07789.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Traveler rail weld Components. Total number of welds MT Tested: 30 No's. The weld designations are review as follows:

1. 20TR2-031-009,013,015,017,011
2. 20TR2-045-009,013,015,017,011
3. 20TR2-046-009,013,015,017,011
4. 20TR2-048-009,013,015,017,011
5. 20TR2-049-009,013,015,017,011
6. 20TR2-050-009,013,015,017,011

During QA MT review of welds located on OBG Traveler rail (TR)20TR2-048, this QA observed Ten Linear indications measuring approximately 4 ~10 mm in length. The indications are located on the traveler rail web and flange base metal and buttered areas at the end of the traveler rail. The nearest weld is identified as: 20TR2-048-011. The web and flange are identified as TR20F and TR20H respectively. The "Y" locations are approximately 40 mm and 25 mm for web and flange indications respectively. The "Y" locations are measured from the end of the traveler rail as shown in the photos below. The thickness of the TR web and flange is 20 mm.

This QA Inspector generated an incident report on this date for the above issue, for further information see the incident report and attached photos.

This QA Inspector Randomly observed the following work in progress:

ZPMC personnel heat straightening OBG member identified as 20TR2-041. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Xiang feng feng was present to monitor the heat straightening process. The heat straightening appeared to comply with the Caltrans Engineer approved Heat Straightening Report (HSR) HSR (B)-362.

Flux Cored Arc Welding (FCAW) welding of miscellaneous component identified as SA3099A. Welder is identified as 059450. ZPMC Quality Control (QC) is identified as Mr. Xiang feng feng. The welding variables appeared to comply with Applicable the WPS: WPS-B-T-2132-ESAB.

BAY- 4

This QA observed that no significant work was being performed in this bay during the time QA was present.

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BAY- 8

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07784.

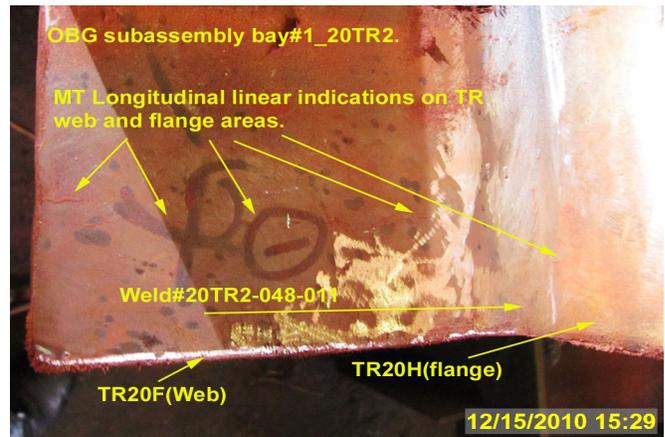
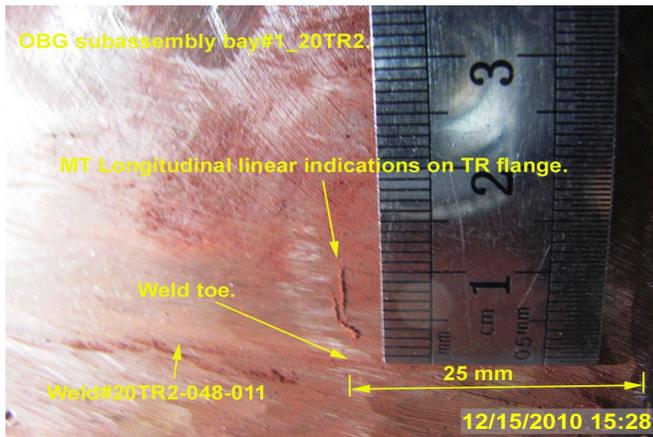
MT

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Bike path weld Components. Total number of welds MT Tested: 16 No's. The weld designations are review as follows:

1. BK004A8-057-023,035
2. BK004A6-057-023,035
3. BK004A3-057-017,018,034,035
4. BK004A4-057-008,009,023,024,060,061,075,076

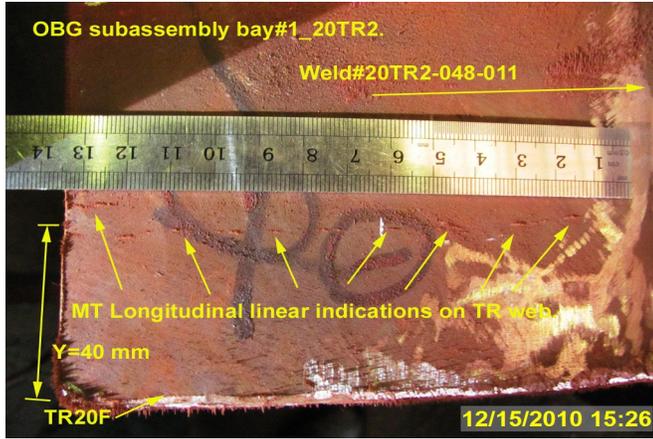
Shielded Metal Arc Welding of weld joint identified as BK004ASD1-058-001. Welder is identified as 067904. ZPMC Quality Control (QC) is identified as Mr. Liu chuan gang. The welding variables appeared to comply with Applicable the WPS: WPS-B-P-2211-B-U2.

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



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Summary of Conversations:

Only general conversation was held between QA and Quality Control (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:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer
