

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015573**Date Inspected:** 10-Jul-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. Huang min**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:

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This QA Inspector Randomly observed the following work in progress:

ZPMC personnel heat straightening OBG member identified as 10TR2-012. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Liu Fa Wen was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B) 8076.

ZPMC personnel heat straightening OBG member identified as 11TR3-016. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Liu Fa Wen was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B) 8077.

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The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06168.

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 Bottom Panel weld Components. Total number of welds MT Tested:22 No's. The weld designations are review as follows:

1. BP3036-001-025~036.
2. BP3040-001-019,020,031,032,043,044,055,056,067,068.

During Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Bottom Panel (BP) BP3040A, this QA observed One (1) longitudinal surface linear indication measuring approximately 5 mm in length. The weld is identified as: BP3040-001-020. The weld is a fillet weld joining Bottom plate to Stiffener plate. The fillet weld size measured to be 9 mm. The "Y" location is 0 from the nearest end of the weld. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC QC personnel are required to perform 10% MT inspection of these welds. This QA informed to ZPMC QC identified as Mr. Huang min and American Bridge/Fluor QA Inspector identified as Mr. Liu Hua Jie. This indication has been ground out and MT re tested found to be acceptable. Refer attached photos for more details.

Signed off the following green tag:

1. 13320.
2. 13321.

ZPMC personnel heat straightening OBG member identified as WJF-0-452~455. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Zhao jian Hang was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B) 8742.

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Shielded Metal Arc Welding (SMAW) Tack welding of weld joint EP3022-001-027/028. Welder is identified as 049485. ZPMC Quality Control (QC) is identified as Mr. Wang Liang. The welding variables appeared to comply with the Applicable WPS: WPS-B- P-2112.

Flux Cored Arc Welding (FCAW) of weld joint DP3155-001-018/019. Welder is identified as 048625. ZPMC Quality Control (QC) is identified as Mr. Guo Pan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint DP3110-001-005. Welder is identified as 062447. ZPMC Quality Control (QC) is identified

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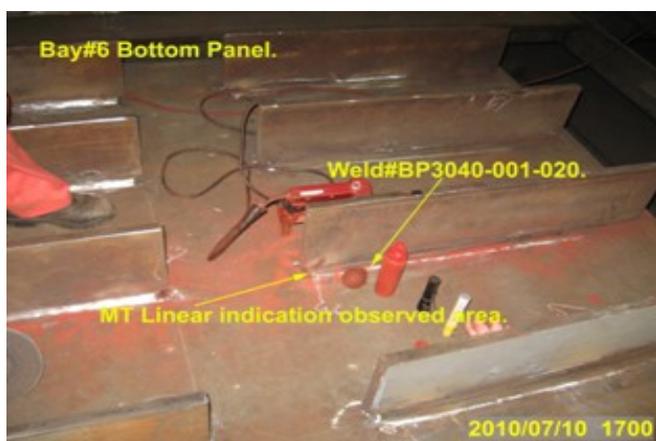
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as Mr. Wang Liang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

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ZPMC personnel heat straightening OBG member identified as 11TR8-001. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Yang Qing Feng was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B) 8162.

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



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
