

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-018000**Date Inspected:** 02-Nov-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. Li zhi jiang**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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The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07201.

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 Longitudinal diaphragm weld Components. Total number of welds MT Tested: 14 No's. The weld designations are review as follows:

1. LD3042-001-004~007,015,017,021,023,025,028,030,032,34,036.

This QA Inspector Randomly observed the following work in progress:

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Flux Cored Arc Welding (FCAW) of weld joint LD3041-001-387,388. Welder is identified as 208035. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint FB3273-001-048,050. Welder is identified as 050242. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-TC-U4b-F.

FCAW of weld joint FB3273-001-003,006. Welder is identified as 052696. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-TC-U4b-F.

FCAW of weld joint FB3272-001-043,045. Welder is identified as 055491. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-TC-U4b-F.

FCAW of weld joint FB3272-001-003,006. Welder is identified as 044830. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-TC-U4b-F.

During the QA random visual inspection of Orthotropic Box Girder (OBG) Longitudinal diaphragm Lifting lugs (LD) of Lift 14 East, this QA Inspector observed ZPMC has temporarily tack welded steel plates on Seismic Performance Critical Material (SPCM) plate without engineer's approval. The approved shop drawings do not specify any welds in these locations. The LD's are identified as LD3041A and LD3040A. The LD lifting lug part numbers are identified as X3751A (SPCM-TTP-Z), X4598L/G (SPCM), XX4522A (SPCM-TTP-Z), X4598F/D (SPCM), X4523B (SPCM-TTP-Z) and X4598M/G (SPCM). The material type of the added steel plates being welded to the LD's is not known. The thickness of the LD web plates is 35mm and 18mm and lifting lugs is 40mm.

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

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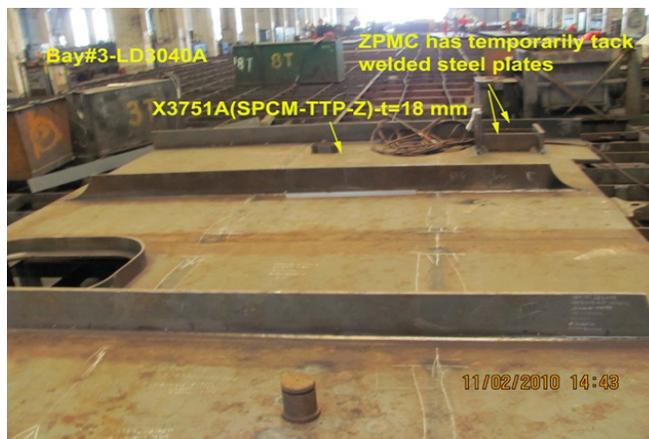
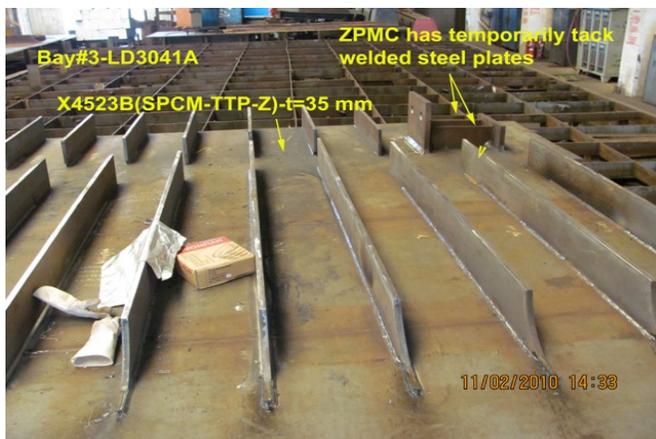
Submerged Arc Welding of weld joint SA3451-001-001. Welder is identified as 045265. ZPMC Quality Control (QC) is identified as Mr. Zhu jun. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2221-B-L2c-S-2.

FCAW of weld joint LD3050-001-029,030. Welder is identified as 045203. ZPMC Quality Control (QC) is identified as Mr. Zhu jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

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.

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Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
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Reviewed By:	Hall,Steven	QA Reviewer
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