

**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-014521**Date Inspected:** 31-May-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:** Zhou Cheng.**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 Inspector (QA) Shailesh Wadkar 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:

Outside Yard:

CB11, CB12, CB13 &amp; CB16:

This QA Inspector observed that no significant work was being performed on the above mentioned CB's at the time when this QA was present.

CB14:

This QA Inspector observed the following work in progress:

Repair welding of weld joint nos: FB204-044-069. Welder was identified as 044844. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMAW-2G(2F)-Repair [welding repair report (WRR) no: B-WR13046 Rev-0 ].

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Repair welding of weld joint no: FB205-043-029. Welder was identified as 044844. Welding process was identified as SMAW. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMAW-1G(1F)-Repair (WRR no: B-WR13049 Rev-0).

Trial Assembly:

CB7 & CB8:

During random inprocess inspection of the above mentioned Cross Beams, this QA Inspector observed these CB's being disassembled from Trial Assembly. No other significant work was being performed on this CB at the time when this QA was present.

CB9 & CB10:

This QA Inspector observed that no significant work was being performed on this CB at the time when this QA Inspector was present.

Bay 14:

No significant work was being performed in this Bay at the time when this QA Inspector was present.

Bay 19:

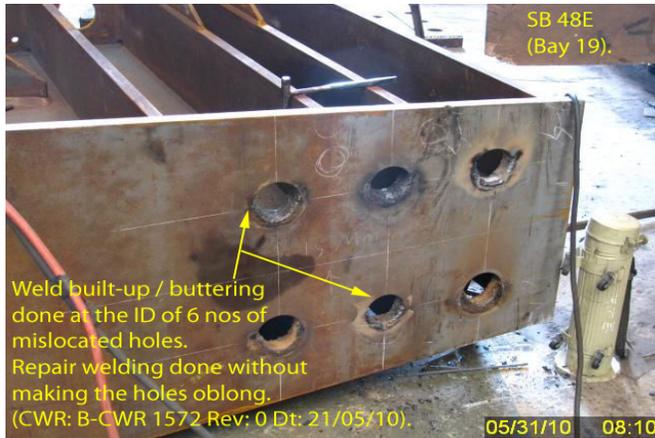
During random inprocess inspection of fabrication of OBG components Suspender Brackets, this QA Inspector observed the following issue:

- ZPMC welding personnel performing base metal restoration of the mis-located suspender rod holes on suspender bracket identified as SB48E.
- The repairs did not appear to comply with the approved Critical Welding Report (CWR): B-CWR1572 and B-CWR1578.
- The above referenced CWR specifies elongating the holes by gouging, performing Magnetic particle Testing (MT) of the excavated area prior to welding and weld the hole longitudinally using stringer beads.
- ZPMC welder was observed buttering (build up with weld) the Inside Diameter (ID) of the mis-located holes. No elongation of the holes was performed prior to welding.
- This manner of repair appears to have been performed on all 6 suspender rod holes on the following suspender brackets: SB48E, SB48W & SB54W.
- This QA Inspector discussed this issue with ZPMC QC, Mr. Zhou Cheng that they did not appear to comply with the Contract documents and an incident report would be raised. ABF QA was identified as Mr. Zeng Wen Jun
- Refer attached photos for further details.

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 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; phone: 15000422372., who represents the Office of Structural Materials for your project.

**Inspected By:** Wadkar,Sailesh

Quality Assurance Inspector

**Reviewed By:** Hall,Steven

QA Reviewer