

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-004073**Date Inspected:** 22-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China**CWI Name:** Jicheng Zou**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/ Tower**Summary of Items Observed:**

89M Mock-up

This QA Inspector observed ZPMC finish the welding on MUB-MA21-G/J-25 for the 15mm fillet weld. The recorded temperature at the time of completion was 185°C at 1540 hrs. The temp was checked again 7 minutes later with a reading of 120°C which was a 65°C drop. This was outside the approved procedure for this location which required a 40°C drop maximum within 60min. ABF rep Mike Williams informed this QA inspector that this trial is rejected due to the cool down. ZPMC had their CWI Jicheng Zou (CWI # 08021431) onsite for monitoring the trial welds. Upon further observations ZPMC had elected to monitor the cool down rate to the ambient temperature as required. The rate of cool down is as follows;

1540 hrs – 185°C

1547 hrs – 120°C [ABF rejects trial as per Mike Williams]

1712 hrs – 170°C [ZPMC brings temp. back up with heaters and torch]

1742 hrs – 162°C

1812 hrs – 126°C

1842 hrs - 121°C

1912 hrs – 100°C

1942 hrs – 85°C

Ambient temperature needed to be reach to fulfill procedure as established with ABF is 32°C.

Strut Mock-up

This QA inspector arrived in Bay 4 for the observation of the MA26 strut mock up assembly. It was noted that after speaking with ZPMC CWI Sha Xi that ZPMC would be welding the mock up tomorrow. The work that had been performed today was tack welding only of the 3 pieces to make up strut that included 2) MA517 and 1)

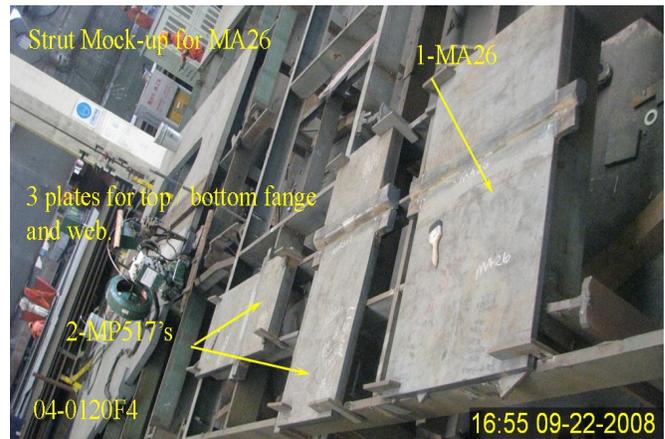
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MA26. These Pieces are the top and bottom flange and web plate. See photos below for plates.

OBG Bay 1

The Caltrans QA observed ZPMC has approximately thirty (30) to forty (40) workers performing various functions relative to the fabrication of the OBG Deck Panels. These functions include; closed rib milling, PJP weld joint beveling, drilling thru holes, press forming, closed rib splice welding, closed rib diaphragm fit-up and FCAW welding of splices, closed rib to deck plate fit-up and tack welding and the PJP welding of closed ribs to deck plates. Deck Plates at the gantry stations were, Gantry-1 DP200-001 tack welded, ZPMC earlier in the shift had performed MT for the tack weld locations on 3 welds only at the time the Caltrans QA Inspector returned to the bay no further progress was noted. Gantry 2, DP 335-001 and DP335-002 had been completed previously with the SAW and GMAW welding processes.



Summary of Conversations:

As noted above.

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 Ady Velasco , 1-381-694-2685, who represents the Office of Structural Materials for your project.

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Inspected By:	Riley, Ken	Quality Assurance Inspector
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Reviewed By:	Carreon, Albert	QA Reviewer
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