

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-000592**Date Inspected:** 09-Oct-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Sha Zhi & Zhang Xu Liang	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:	Caltrans Mockup	

Summary of Items Observed:

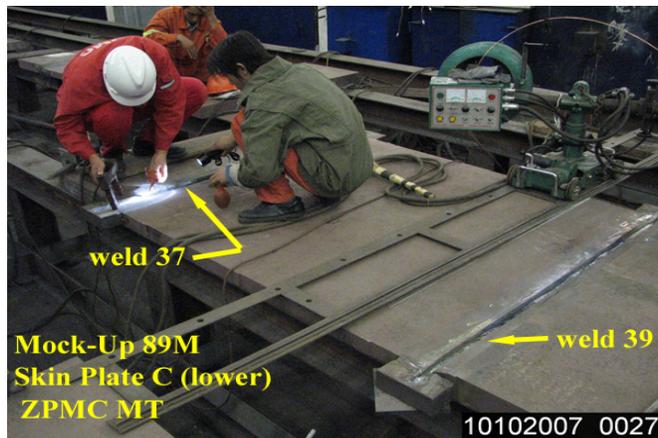
Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M and 114M, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item	Description	WBS	Dwg No.	Status
1	Skin Plate C (lower)	NA	NA	Work in Progress
	Mock-Up 89M, Skin Plate C (lower section): Caltrans QA Inspector witnessed ZPMC QC non-destructive testing technician, Mr. Zhou Danyun perform magnetic particle test (MT) and Visual Test (VT) inspection of the partial joint penetration and complete joint penetration, root weld passes. The locations are identified as plate piecemark number mp507 to MA23, weld number 37 and mp508 to MA23, weld number 39, inside side. The MT testing appeared to be in general conformance with AWS D1.5 2002 requirements.			
	Caltrans QA Inspector performed MT and VT inspection of the root pass welds identified as weld 37 and 39. See Caltrans Magnetic Particle Test Report, TL6028, generated on this date for additional information. The following digital pictures illustrate ZPMC MT in progress.			
	After the completion of the MT inspection, ZPMC performed submerged arc welding (SAW) at skin plate splice weld 37 and 39. The welder operator is identified as Mr. Wu Zhibin, welder stamp 049804, welding fill pass weld in the flat position. The welder is using welding procedure specification WPS-B-T-2221-B-U3c-S-1, Revision 0 and WPS-B-T-2321-B-P3-S, Revision 0. ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Sha Zhi and Bureau Veritas inspectors, Mr. Hua Li Wei and Mr. Zhang Xu Liang monitored welding activities at the workstation. Caltrans QA Inspector verified welding parameters at approximately 630 amps, 32.0 volts and 640 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were documented during welding			

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activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW consumables were verified and identified as JW-3, classification EM12K, diameter 4.8 mm (.189 inches) electrode and, JF-B Flux, classification F7A2. The following digital pictures illustrate ZPMC MT in progress.



Summary of Conversations:

At 0300 hour, ZPMC QC inspector, Mr. Li Xiu Yang informed Caltrans QA Inspector that welding would be stopped at 0400 hours. No further explanation was given, other than the welder was not going to work past the 0400 hour.

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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler, Mike	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
