

**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-000481**Date Inspected:** 12-Sep-2007**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

<b>CWI Name:</b>	Hau Li Wei & Li Wen Sheng	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	77 & 114	

**Summary of Items Observed:**

On this date, Caltrans Office of Structural Materials (OSM), Quality Assurance (QA) Inspector, David A. Smith was present for the random observations related to the following;

Item-1 77 Diaphragm cover pass, weld 73, on plate SA 95-1 to SA 95-2. The CWI/QC as Ye Yong Jun. Caltrans QA Inspector did witness Cai Xin Xin with ZPMC performing a dry powder Magnetic Particle (MT) test of the cover pass, weld 73. The MT yoke used was a Parker Contour Probe, model B310-S, SN 4804 with a calibration due date of May 27, 2008. The testing was conducted on the inside face of the diaphragm plates SA 95-1 to SA 95-2 and was rejected for what appeared to be two transverse grinding marks that the tech had ground prior to the QA's MT test. The grinding area had a shallow dished out spot approximately 4mm in length and 1.5mm in depth. The Caltrans QA Inspector performed an MT test on approximately 25% of the weld on plate SA 95-1 and SA 95-2 and noted no other discrepancies other than the dished out grinding area in the heat affected zone. Further grinding as to be performed on the dished out area to eliminate the two transverse grind marks located on plate SA 95-1 adjacent to weld 73.

Item-2 77 Diaphragm cover pass weld 73 on the inside face of plates SA 104-1 to SA 104-2. The MT testing of the cover pass was witnessed by the Caltrans QA Inspector and performed by ZPMC technician Cai Xin Xin. The MT test showed no indications and was MT/OK. The Caltrans QA performed a MT test on approximately 25% of the cover pass and was found to be in compliance with project specifications.

Item-3 77 Mock-Up Skin-D Stiffener plate cover passes number 3, 4, 5, 6, 7, 8, 9 & 10 were observed during the ZPMC MT testing. The tests were conducted by ZPMC MT technician Cai Xin Xin with a Parker Contour Probe B310-S SN 4804 and a calibration due date of May 27, 2008. Each weld was tested 100% by ZPMC and was MT/OK. The Caltrans QA Inspector performed an MT test on approximately 20% of each of the eight weld cover passes and found to be in compliance with project specifications.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

There were no pertinent conversations pertaining to the project during this shift.



## 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.

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<b>Inspected By:</b>	Smith,David	Quality Assurance Inspector
<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer

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