

**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-000534**Date Inspected:** 25-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Bing & Hau Li Wei**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:** 114 & 77**Summary of Items Observed:**

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

Item-1 114, Skin-E, MA109, Stiffener MP1010, side A & B. Repair welding being performed on a PJP joint by Welder Operators (A) Bai Wenming, #040434 and (B) Wen Yan Yan, #066734 both qualified with Flux Core Arc Welding (FCAW) in the 3G position. Welding parameters recorded by this QA Inspector were, welder (A) Volts 31.2, Amps 305, Temperature 130c with Travel Speed of 273 mm/min and welder (B) Volts was 30.5, Amps 325, Temperature 120c and Travel Speed 270 mm/min. The WPS used was WPS-B-T-2332-TC-P5-F.

Item-2 114 MA112 The weld repairs of stiffeners MA112-11 and MA112-8 have been completed and are accessible for retest.

Item-3 114 Plates P858, A119 and P927 Filler pass welding being performed by Welder Operator Jiang Zhou #040261 qualified for FCAW in the 3G position. WPS was B-T-2231-TC-U5-F and the welding parameters recorded by this QA Inspector were, Amps 309, Volts 31.5, travel Speed 325 mm/min.

Item-4 77, Skin-A, Stiffener #2 (MP2-2 to plate MUSC-MA2-2). The repair welding was being performed by welding (A) Zhai Qingshan #058026 and (B) Yang Lei #040690. Both welders are qualified with SMAW in the 3G position. The WPS for the 345 material was WPS-345-SMAW-1G(1F) Repair. Welding parameters recorded by this QA Inspector were, welder (A) Amps was 225, Volts 27.1, Travel Speed of 187 mm/min. with a surface temperature of 185c and welder (B) Amps was 225, Volts 27.7, Travel Speed 195 mm/min. with a temperature of 187c. The electrode, rod, was TL508 for both welders. A rod box was being utilized and was turned on and hot at the time of the welding.

Item-5 114 Skin-A MA107, Stiffeners MP1001-2, MP1002-6, 1002-5 and MP1002-1 of 345 material have had their welds completed and are ready for ZPMC technicians to perform an ultrasonic flaw detection test. ZPMC

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technicians were not available for testing during this shift.

**Summary of Conversations:**

Detailed information concerning the indications size and location for the completed weld repairs of 114, Plate MA112 were requested from the ZPMC QA, Shen Xue Jun and was told that it had been previously given to Caltrans QA Task Leader Robert Cuellar by Xu Jun (Eric) and was not available at that time.

**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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