

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-001786**Date Inspected:** 15-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**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:	Chen xi			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:

DP003-001 and DP108-001 Production panels

This Quality Assurance (QA) inspector arrived at ZPMC for observation of the SAS super structure fabrication.

This QA inspector observed ZPMC weld a Production Monitoring Test (PMT) for deck plate DP003-001 and DP108-001. DP003-001 was welded first using the Gas Metal Arc Welding (GMAW) process for the root pass.

ZPMC elected to proceed with the root pass on deck panel DP108-001 which is outside the agreed upon welding procedure and in direct violation of ABF's stop work letter submitted to ZPMC. This QA inspector observed

ZPMC welding personnel using gantry # 1 for the welding process and recorded the amperages, voltage and travel speed of each of the 6 welding heads used for production and PMT welding. The Average amps and volts were for DP108-001 GMAW 364.8 amps, 30.12 volts and a travel speed of 518 mm/min and for SAW 679 amps, 24.7 volts and a travel speed of 476 mm/min. For DP003-001 the average welding parameters were; GMAW 361.2 amps, 30.69 volts and travel speed of 518 mm/min. For SAW 679.4 amps, 24.73 volts and travel speed of 476 mm/min. The Ambient temperature in the shop was recorded at 10°C with the steel temperature at 10°C also. Deck panel

DP003-001 was welded in two groups group A included Rib numbers U226/U2, U162/U144 and U22/U26. Group B was rib numbers U161/U3 and U145/U35 this deck panel ribs were spliced together previously by a Complete Joint Penetration (CJP) weld. Deck panel DP108-001 was welded in two groups; group A included Rib numbers U26 and U18. Group B was rib numbers U19 and U17. Once the PMT's welding was completed that included the SAW process ZPMC's QC/CWI Chen Xi performed a visual inspection and marked the required 500mm area to be utilized as the inspection criteria area once ZPMC completed their visual inspection this QA inspector performed his QA verification and found the weldments to be within the inspection criteria for the PMT. The Ultrasonic Testing and macros shall be performed later this date by ZPMC and Caltrans METS. It was noted that ZPMC had 1-CWI and 2- QC inspectors in bay 1 this date and ABF had 2 QC representatives present this day for

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bay 1. By the end of this QA inspectors shift ZPMC had not completed the SAW welding for DP108-001 which had 1 rib (2 welds) left to complete and was continuing into the next shift for completion of the welding process.



Summary of Conversations:

As noted in the above content.

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 Pat Lowry,(858)344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Riley,Ken	Quality Assurance Inspector
Reviewed By:	Hager,Craig	QA Reviewer
