

**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-014437**Date Inspected:** 20-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Sun Bo			<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>	OBG Sub-Assembly		

**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Stefan Holmes was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China.

This QA Inspector observed the following work in progress:

BAY 9:

Gas Metal Arc Welding (GMAW) of DP3125-001; Weld(s) 001. Welder(s) are identified as 059418. ZPMC Quality Control (QC) is identified as Sun Bo. Weld Procedure Specification (WPS) is identified as WPS-B-T-2342-U1(urib)-5. Welding appears to conform to the requirements of the WPS used.

Gas Metal Arc Welding (GMAW) of DP3125-001; Weld(s) 002. Welder(s) are identified as 059421. ZPMC Quality Control (QC) is identified as Sun Bo. Weld Procedure Specification (WPS) is identified as WPS-B-T-2342-U1(urib)-5. Welding appears to conform to the requirements of the WPS used.

Gas Metal Arc Welding (GMAW) of DP3125-001; Weld(s) 003. Welder(s) are identified as 059416. ZPMC Quality Control (QC) is identified as Sun Bo. Weld Procedure Specification (WPS) is identified as WPS-B-T-2342-U1(urib)-5. Welding appears to conform to the requirements of the WPS used.

Gas Metal Arc Welding (GMAW) of DP3125-001; Weld(s) 004. Welder(s) are identified as 201788. ZPMC

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Quality Control (QC) is identified as Sun Bo. Weld Procedure Specification (WPS) is identified as WPS-B-T-2342-U1(urib)-5. Welding appears to conform to the requirements of the WPS used.

Gas Metal Arc Welding (GMAW) of DP3125-001; Weld(s) 005. Welder(s) are identified as 059416. ZPMC Quality Control (QC) is identified as Sun Bo. Weld Procedure Specification (WPS) is identified as WPS-B-T-2342-U1(urib)-5. Welding appears to conform to the requirements of the WPS used.

Gas Metal Arc Welding (GMAW) of DP3125-001; Weld(s) 006. Welder(s) are identified as 201788. ZPMC Quality Control (QC) is identified as Sun Bo. Weld Procedure Specification (WPS) is identified as WPS-B-T-2342-U1(urib)-5. Welding appears to conform to the requirements of the WPS used.

Gas Metal Arc Welding (GMAW) of DP3117-001; Weld(s) 001. Welder(s) are identified as 059418. ZPMC Quality Control (QC) is identified as Sun Bo. Weld Procedure Specification (WPS) is identified as WPS-B-T-2342-U1(urib)-5. Welding appears to conform to the requirements of the WPS used.

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Gas Metal Arc Welding (GMAW) of DP3117-001; Weld(s) 006. Welder(s) are identified as 201788. ZPMC Quality Control (QC) is identified as Sun Bo. Weld Procedure Specification (WPS) is identified as WPS-B-T-2342-U1(urib)-5. Welding appears to conform to the requirements of the WPS used.

QA Inspector performed initial Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after conventional UT was performed on tack welded areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP3121-001: 13 tack weld location found compliant and 30 tack weld locations found non-compliant as follows:

Weld number 1: 0 Gate to Gate indications found compliant; 6 found non-compliant.

Weld number 2: 0 Gate to Gate indications found compliant; 2 found non-compliant.

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Weld number 3: 0 Gate to Gate indications found compliant; 3 found non-compliant.  
Weld number 4: 0 Gate to Gate indications found compliant; 1 found non-compliant.  
Weld number 5: 0 Gate to Gate indications found compliant; 1 found non-compliant.  
Weld number 6: 4 Gate to Gate indications found compliant; 5 found non-compliant.  
Weld number 7: 5 Gate to Gate indications found compliant; 1 found non-compliant.  
Weld number 8: 0 Gate to Gate indications found compliant; 2 found non-compliant.  
Weld number 9: 2 Gate to Gate indications found compliant; 6 found non-compliant.  
Weld number 10: 2 Gate to Gate indications found compliant; 3 found non-compliant.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC's reference for repair. This QA Inspector prepared a Caltrans U-rib to Deck Panel- Tack Weld Assessment Report for this date.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

**Summary of Conversations:**

No relevant conversations.

**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 Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Holmes,Stefan	Quality Assurance Inspector
<b>Reviewed By:</b>	Hall,Steven	QA Reviewer

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