

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-007445**Date Inspected:** 29-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** WU ZHICHENG**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 COMPONENT**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance(QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

In process Inspection

**OUTSIDE SEGMENT ASSEMBLY AREA**

This QA Inspector randomly observed ZPMC welding personnel performing groove welding of weld joint SEG-019C-047 filler passes at segment 4BW. The personnel were observed welding in the 2G position utilizing a FCAW process. Welder is identified as 220066. The welding variables recorded by QC appeared to comply with the WPS- B – T-2232-Tc-U4b-F.

This QA Inspector randomly observed ZPMC welding personnel performing fillet welding of weld joint SEG-019C-029&030 filler passes at segment 4BW. The personnel were observed welding in the 2F position utilizing a FCAW process. Welder is identified as 220063. The welding variables recorded by QC appeared to comply with the WPS- B – T-2132.

Ultrasonic Testing(Gate To Gate)

The QA Inspector performed, gate to gate Ultrasonic Testing (UT) on Orthotropic Box Girder deck plates to closed rib welds at the tack weld locations. The QA Inspector generated a field inspection UT report on this date

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

designating areas of rejectable indications. Panel identification number is DP-370-001.

The Y locations of indication for the panel were marked and recorded as:

DP-370-001 (10AE)

Total Number of Ribs -05

Total Number of Tack Welds -280

Total Number of Tack Welds Scanned – 224

Weld 01: No Indication

Weld 02: Tack Welds Scanned - 28, Indication Observed - 02

Weld 03: No Indication

Weld 04: Tack Welds Scanned - 28, Indication Observed - 03

Weld 05: No Indication

Weld 06: Tack Welds Scanned - 28, Indication Observed - 04

Weld 07: Tack Welds Scanned - 28, Indication Observed - 01

Weld 08: No Indication

Weld 09: Tack Welds Scanned - 28, Indication Observed - 04

Weld 08: No Indication

Ultrasonic Testing (UT)

This QA Inspector performed Ultrasonic testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members is identified as 4BE “T” Stiffener butt weld.

The Weld Designations are as follow

SP-056-001-034

Magnetic Particle Testing(MPT)

This Quality Insurance Inspector (QA) performed 15% verification Magnetic Particle Testing (MT) for segment 4BE at T-Stiffener to T-Stiffener . This weld was previously tested and accepted by ZPMC QC MT technicians.

The weld designations reviewed are as follows:

For Segment 4BE

SP-056-001-011&12

SP-056-001-034

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

---

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

**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 150-0042-2372, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Bera,Subhasis	Quality Assurance Inspector
<b>Reviewed By:</b>	Prue,Erik	QA Reviewer

---