

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022710**Date Inspected:** 18-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**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:**

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

Bay 14

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhong Lin, CWI Sun Tian Liang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14W

PCMK: TR3001TR1-001

Weld No: 013

Welder: 045240

WPS-B-T-2232-ESAB

Components; OBG 14W

PCMK: TR3021TR2-001

Weld No: 004,007,011,001

Welder: 067876

Weld Repair No. B-WR20756

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

---

---

WPS-345-FCAW-2G(2F)-ESAB-Repair-1

Components; OBG 14W

PCMK: SEG3020\*

Weld No: 025

Welder: 045280

WPS-B-T-2232-ESAB

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Zhong Lin, CWI Sun Tian Liang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14W

PCMK: SEG3020AV

Weld No: 007

Welder: 067889

WPS-B-P-2214-TC-U4b-FCM-1

This Caltrans QA Inspector observed ZPMC performing match drilling in OBG, Rib Stiffener Plates, X4000 ~ X4066.

Heat straightening of PCMK TR3021TR1~30—1-001~011 under approved Heat Straightening procedure, HSR1 (B)-10278. The in process temperature was observed as 450°C. The ZPMC QC was identified as Tian Lei. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 6mm.

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhong Lin, CWI Sun Tian Liang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14W

PCMK: TR3001TR1-001

Weld No: 013

Welder: 045240

WPS-B-T-2232-ESAB

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Zhong Qi Li, CWI Man Bit Li.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

---

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

---

---

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14W  
PCMK: SEG3019B  
Weld No: 008  
Welder: 215553  
Weld Repair No. B-CWR2917  
WPS-345-SMAW-4G(4F)-FCM-Repair-1

Components; OBG 14W  
PCMK: DP3168 to DP3169  
Weld No: Fit Up (see photo below)  
Welder: 067890  
WPS-B-P-2214

Components; OBG 14W  
PCMK: SEG3019BB  
Weld No: 045  
Welder: 044779  
Weld Repair No. B-CWR2917  
WPS-345-SMAW-4G(4F)-FCM-Repair-1

Components; OBG 14W  
PCMK: SEG3019\*  
Weld No: 007  
Welder: 044772, 058102  
WPS-B-P-2214-TC-U4b-FCM-1

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Zhong Qi Li, CWI Man Bit Li.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14W  
PCMK: SEG3019N  
Weld No: 327  
Welder: 055491  
WPS-B-T-2231-ESAB

Components; OBG 14W  
PCMK: DP3167-001  
Weld No: 241,278,322,365,408,418  
Welder: 055564, 051356

---

---

# WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

---

---

WPS-B-T-2233-ESAB

Unless otherwise noted, all work observed on this date appeared to generally comply with 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 James Devey 1500026784, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Leavitt, Kelly	Quality Assurance Inspector
<b>Reviewed By:</b>	Riley, Ken	QA Reviewer

---