

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023139**Date Inspected:** 27-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 Zhu Lin, CWI Wang Jun.

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

PCMK: X3305K-028

Weld No: 001,002

Welder: 067876

WPS-B-T-2233-ESAB

Components; OBG

PCMK: X3305K-046

Weld No: 001,002

Welder: 067876

WPS-B-T-2233-ESAB

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Components; OBG  
PCMK: X3305K-048  
Weld No: 001,002  
Welder: 067876  
WPS-B-T-2233-ESAB

### Trial Assembly

Heat straightening of BK016 at Panel Point 115 under approved Heat Straightening procedure, HSR1 (B)-10301. The in process temperature was observed as 410°C. The ZPMC QC was identified as Zhong Yong Gang. 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 12mm. (see photo below)

This QA Inspector observed the following work in progress for Trial Assembly.

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

ZPMC QC is identified as Zhong Yong Gang.

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 13AE  
PCMK: SEG3007K  
Weld No: 090,097  
Welder: 043661  
WPS-B-P-2213-TC-U4b-FCM-1

Components; OBG 13BE  
PCMK: LD3028-001  
Weld No: 238,239,220,221,196,197,172,173  
Welder: 067571  
WPS-B-P-2114-FCM-1

Components; OBG 13AE  
PCMK: SEG3007F  
Weld No: 041,042  
Welder: 215553  
WPS-B-P-2114-FCM-1

Components; OBG 13AE  
PCMK: SEG3007K  
Weld No: 043,044  
Welder: 044779  
WPS-B-P-2114-FCM-1

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## WELDING INSPECTION REPORT

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This QA Inspector observed the following work in progress for Trial Assembly.

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

ZPMC QC is identified as 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 13AW

PCMK: SEG3013D

Weld No: 126,134,139,145,

Welder: 037779

Weld Repair No, B-WR20577

WPS-345-SMAW-3G(3F)-FCM-Repair-1

Components; OBG 13AW

PCMK: SP3103-001

Weld No: 067,075,088,148,

Welder: 066019

Weld Repair No, B-WR20811

WPS-345-SMAW-3G(3F)-FCM-Repair-1

Components; OBG

PCMK: CA3015A

Weld No: 003

Welder: 045196

Weld Repair No, B-WR20774

WPS-345-SMAW-4G(4F)-FCM-Repair-1

Components; OBG

PCMK: CA3016A

Weld No: 098

Welder: 045196

Weld Repair No, B-WR20774

WPS-345-SMAW-4G(4F)-FCM-Repair-1

This QA Inspector observed the following work in progress for Trial Assembly.

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

ZPMC QC is identified as 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 14 E

PCMK: SEG3013L

Weld No: 093

Welder: 048696

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# WELDING INSPECTION REPORT

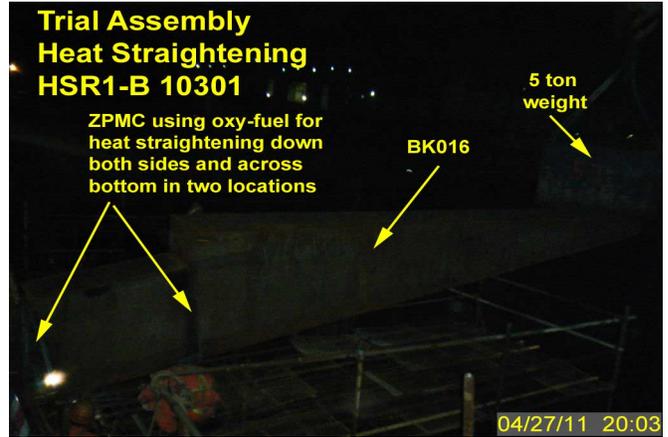
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WPS-B-T-2233-ESAB

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.

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**Inspected By:** Leavitt, Kelly

Quality Assurance Inspector

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**Reviewed By:** Riley, Ken

QA Reviewer