

**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-021211**Date Inspected:** 01-Mar-2011**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**CWI Name:** Li Yang**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 Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 12AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated FB3006-001-128, FL3 web to Flange hold back weld. The welder is identified as #040320 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

Cross Beam 17

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CB3001A-017-018, Side Panel to Bottom Panel hold back weld. The welder is identified as #040320 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

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# WELDING INSPECTION REPORT

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CB3001A-017-016, Side Panel to Bottom Panel hold back weld. The welder is identified as #040320 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

## Segment 12AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated FB3054-001-128, FL3 web to Flange hold back weld. The welder is identified as #040320 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspector is identified as Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

## Segment 12BW

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate to edge Plate CJP hold back weld, cross beam side at the east end of the segment.

## Segment 12BE/12CE

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate transverse CJP splice, bike path side.

## Segment 12BW/12CW

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate transverse CJP splice, counter weight side.

## Segment 12AE/12BE

This QA Inspector observed torquing of high strength bolts for the Side Plate WT stiffener flange splice plates with the use of a pneumatic impact wrench, cross beam side.

## QA Verification

This QA Inspector observed ZPMC personnel performing Final Bolt tension verification on A325 high strength bolts on the following components:

12AW:

Chevron Brace upper and lower connection at panel point 109-112

Bolts verified:

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# WELDING INSPECTION REPORT

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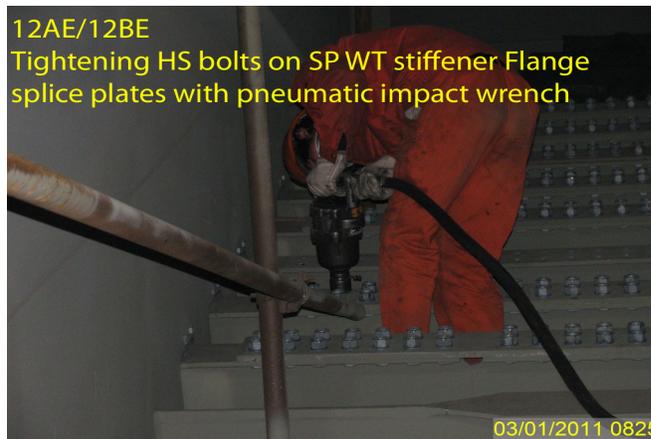
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M22x65 Lot Number DHGM220105 (690 N.m.)  
M22x70 Lot Number DHGM220041 (460 N.m.)  
M22x75 Lot Number DHGM220034 (453 N.m.)  
M22x80 Lot Number DHGM220094 (470 N.m.)

Approved Torque Wrench X02-776 was used.

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

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**Inspected By:** Hernandez, Dan

Quality Assurance Inspector

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**Reviewed By:** Miller, Mark

QA Reviewer