

**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-017603**Date Inspected:** 26-Oct-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>                   | N/A        | <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 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.

BAY 11 - Bolt Testing Room

## QA Verification

This QA Inspector observed ZPMC personnel performing Rotational Capacity testing and Pre-installation verification of required torque for A325 High Strength Bolt assemblies (nut, bolt, washer) with a Skidmore-Wilhelm Model: MS, serial number: 15866 (calibration expiration date 4/29/11) and torque wrench identified as #2 (calibration expiration date 4/10/11) on the following bolts:

M22x65 Lot # DHGM220112  
M22x65 Lot # DHGM220113  
M22x65 Lot # DHGM220114  
M22x65 Lot # DHGM220115  
M22x65 Lot # DHGM220116  
M22x65 Lot # DHGM220117

# WELDING INSPECTION REPORT

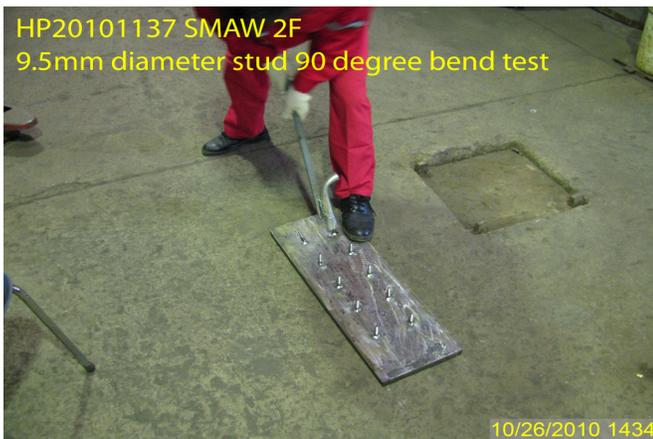
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5 bolt assemblies were tested for each lot

## Weld Lab

This QA Inspector observed the welding of Procedure Qualification Record (PQR) HP20101136 6.3mm diameter stud and HP20101137 9.5mm diameter. Welding was performed using the Shielded Metal Arc Welding (SMAW) process in the 2F (horizontal) position using E309L-16 electrode. The electrode is 3.2mm in diameter. The Welding Procedure Specification (WPS) followed was PWPS-B-T-2141-stud (6.3mm) and PWPS-B-T-2141-stud-1 (9.5mm). The base plate was 25mm in thickness. The base plate material is identified as A709; the stud material is identified as 316L. 10 studs per each diameter were welded to base plate. 1 plate was used for each diameter. The welder was identified as Zhou Bin. The studs were bent to 90 degrees, no fractures were observed in the weld.

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



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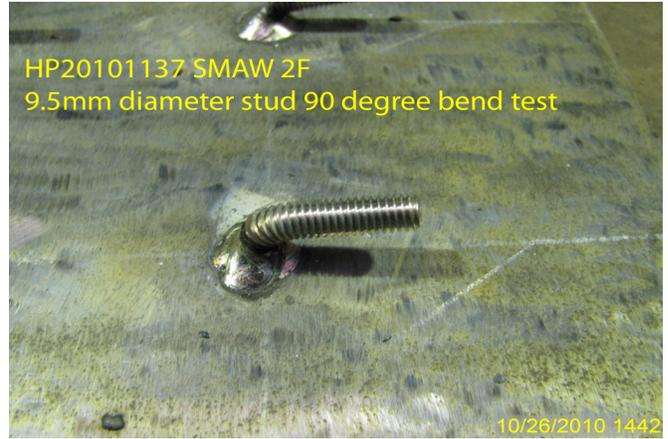
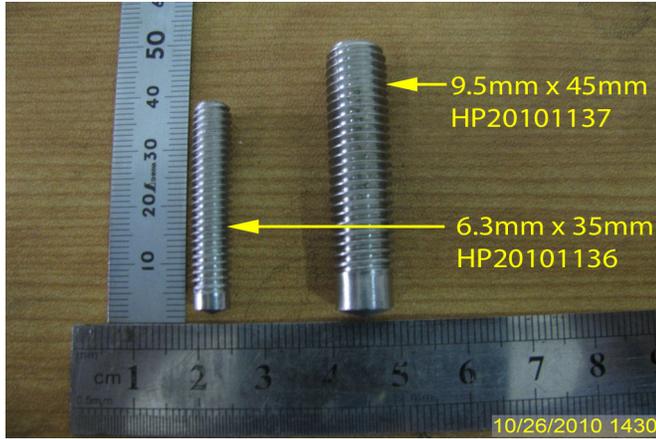
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# WELDING INSPECTION REPORT

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## 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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| <b>Inspected By:</b> | Hernandez,Dan      | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Dsouza,Christopher | QA Reviewer                 |

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