

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012586**Date Inspected:** 11-Mar-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>	Orthotropic Box Girder (OBG)	

**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

Bay 11, Bolt Tension Test.

This QA inspector witnessed the lot testing of the A325M High Strength Bolts to determine the torque values for the minimum tension required. Below is a list of the lots tested and the average torque values determined. Also witnessed the testing for rotational capacity on same lot numbers.

1. Bolt Lot No: 5890Z, size M20 x 50, RC Set# DHGM200009, Nut Lot No: MD411Y, Washer Lot No: B8830Y and average torque value was 367 N-m.
2. Bolt Lot No: 5891Y, size M20 x 60, RC Set# DHGM200010, Nut Lot No: MD411Y, Washer Lot No: B8830Y and average torque value was 365 N-m.
3. Bolt Lot No: 5889Z, size M20 x 85, RC Set# DHGM200012, Nut Lot No: MD411Y, Washer Lot No: B8830Y and average torque value was 350 N-m.
4. Bolt Lot No: 5872Z, size M16 x 45, RC Set# DHGM160025, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 193 N-m.

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5. Bolt Lot No: 5873Z, size M16 x 50, RC Set# DHGM160026, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 193 N-m.
  
6. Bolt Lot No: 5874Z, size M16 x 55, RC Set# DHGM160027, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 180 N-m.
  
7. Bolt Lot No: 5875Z, size M16 x 60, RC Set# DHGM160028, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 180 N-m.
  
8. Bolt Lot No: 5877Z, size M16 x 80, RC Set# DHGM160030, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 180 N-m.
  
9. Bolt Lot No: 5878Z, size M16 x 85, RC Set# DHGM160031, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 180 N-m.
  
10. Bolt Lot No: 5879Z, size M16 x 90, RC Set# DHGM160032, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 186 N-m.
  
11. Bolt Lot No: 6724Z, size M16 x 45, RC Set# DHGM160021, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 180 N-m.
  
12. Bolt Lot No: 6724Z, size M16 x 55, RC Set# DHGM160022, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 200 N-m.
  
13. Bolt Lot No: 6734Z, size M20 x 50, RC Set# DHGM200020, Nut Lot No: NS321Z, Washer Lot No: B8830Y and average torque value was 340 N-m.
  
14. Bolt Lot No: 6736Z, size M20 x 60, RC Set# DHGM200021, Nut Lot No: NS321Z, Washer Lot No: B8830Y and average torque value was 373 N-m.
  
15. Bolt Lot No: 7089Z, size M20 x 55, RC Set# DHGM200022, Nut Lot No: NS321Z, Washer Lot No: B8830Y and average torque value was 380 N-m.
  
16. Bolt Lot No: 7092Z, size M20 x 80, RC Set# DHGM200024, Nut Lot No: NS321Z, Washer Lot No: B8830Y and average torque value was 350 N-m.

Torque wrench was been used with Sr. No. 2#, Calibration Expiry date: March 10, 2011 and Skidmore Sr.No: 15865, Calibration Expiry date: June 01, 2010.

This QA notified ZPMC QC identified as Mr. Shen jian Bo and ABF inspector identified as Mr. David Wu are present during inspection.

(The attached photographs provide additional detail.)

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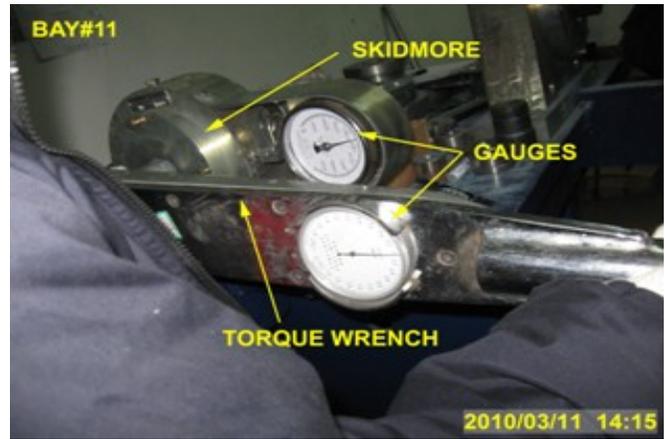
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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

## 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 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

**Reviewed By:** Miller,Mark

QA Reviewer