

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-014347**Date Inspected:** 11-May-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

CWI Name:	N/A	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:	HS Bolts	

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.

Bolt Testing Room

This QA Inspector observed ZPMC personnel performing High Strength bolt Pre-installation torque verification; testing of the A325 bolt assembly was performed by turning the bolt head. A Skidmore-Wilhelm, model: HT S/N: 1015 (calibration expiration date 6/4/10) and torque wrench identified as #2 (calibration expiration date 3/10/11) was used on the following bolts:

Lot # DHGM240003 M24x70
Lot # DHGM240010 M24x70
Lot # DHGM240020 M24x75
Lot # DHGM240015 M24x85
Lot # DHGM240016 M24x85
Lot # DHGM270001 M27x85

Lot # DHGM270002 M27x85 verification was not completed due to torque values exceeding the capabilities of the dial gauge on the torque wrench.

WELDING INSPECTION REPORT

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This QA Inspector observed ZPMC personnel performing calibration of hydraulic wrenches and pumps to convert hydraulic wrench values from PSI to a torque value, M22x80 bolts were tightened in a Skidmore-Wilhelm. The bolts were tightened to 5 settings from 10, 15, 20, 25, 28 MPA at each setting the torque values were read with the use of the dial gauge on the Skidmore-Wilhelm and torque wrench. The 3 values will be calculated to determine the necessary tension of the high strength bolts that will be tightened with the hydraulic wrench during fabrication. The equipment used is as follows:

Skidmore-Wilhelm model MS, S/N: 15865 (calibration expiration date 6/1/10)

Torque wrench identified as #2 (calibration expiration date 3/10/11)

Hydraulic pump PW090331002 used with Hydraulic wrench X020902002

Hydraulic pump PW090331001 used with Hydraulic wrench X020904003

A325 High Strength bolt M22x80 lot # DHGM220091

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

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.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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