

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 #: 04-0120F4
Cty: SF/Ala Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-007775
Date Inspected: 17-Jul-2009

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:	Guo Yan Fei, Zou Liu Hai, 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:	Tower and OBG Components		

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 9

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 9:

Butt welding of deck panel U-rib seams

Bay 8

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 8:

Drilling 33mm holes in flanges of tower struts.

SMAW fit and tack welding of weld joint CB201-G-035-144. Welder was identified as 203272. ZPMC QC was identified as CWI Guo Yan Fei (QC1). The welding variables recorded by QC1 appeared to comply with WPS-B-P-2112.

Bay 6

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 6:

SMAW welding of weld joints WD1-A305-77M-3-8A, 2B located on PCMK west tower. Welders were identified

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

respectively as 066456, 037780. ZPMC QC was identified as CWI Zou Liu Hai (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-3212-Tc-U5b-1.

SMAW welding of weld joints WD1-A305-65M-3-8A located on PCMK west tower. Welder was identified as 037932. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-3212-Tc-U5b-1.

Bay 5

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 5:

SAW welding of weld joints CB202-011-003. Welder was identified as 215248. ZPMC QC was identified as CWI Li Yang (QC3). The welding variables recorded by QC3 appeared to comply with WPS-B-T-2221-B-L2c-S-2.

OBG Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in response to Bolting Inspection Notification Sheet No. 00071:

Section 4AE/4BE joint, longitudinal diaphragm:

ZPMC workers performed final bolt tightening verification at the direction of ZPMC QC Hu Mei Gang (QC1) using ZPMC calibrated wrench identified by scribing on the handle as XO2-578. No less than 10% of the ASTM A325 bolt sets, per lot, at each connection were torque tested, with a minimum of one bolt set tested at each side of the connection. QC1 provided this QA Inspector, George Goulet, with the following information regarding the bolt sets installed at this location. This QA Inspector, George Goulet, observed ZPMC's Bolt Test Log for SFOBB (RoCap list), listing the RoCap Set numbers, bolt set size, and the N.M test result for torque tightening purposes. The information presented by QC1 and listed below appeared to this QA Inspector, George Goulet, to match the RoCap list.

RC Set No. DHGM240003 – M24-3x70 – RoCap test result 543N.M

RC Set No. DHGM240021 – M24-3x95 – RoCap test result 540N.M

The torque of the above noted bolt sets were verified by torque testing with the above noted calibrated wrench with the wrench setting displayed as 545N.M.

This QA Inspector, George Goulet, randomly observed the following work in progress in the trial assembly area:

4AE, end west of panel point 24 - sandblasting.

4BE, panel points 26~28 – ZPMC workers installing 22mm bolt sets through bottom plate on the north side.

1AE/1BE joint - ZPMC workers match drilling north and south longitudinal bulkheads.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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

Summary of Conversations:

As noted above, and this QA Inspector, George Goulet, was informed by QC1 that the above noted bolt set numbers were recorded by ZPMC during installation and ZPMC would perform the torque verification tests of the above noted bolt sets to the highest torque test result displayed in the RoCap list for both bolt sets listed together of the same diameter.

This QA Inspector, George Goulet, asked each QC monitoring the welding if all the welding variables observed by QC appeared to comply with the appropriate WPS, including the preheat requirements according to thickness of the thickest member being welded. Each QC monitoring the welding showed this QA Inspector, George Goulet, that QC was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all QC observed did appear to comply.

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, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
