

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-008615**Date Inspected:** 06-Aug-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:** Li Jia**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**Summary of Items Observed:**

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

TRIAL ASSEMBLY YARD

OBG segment 4AW-4BW

Visual Inspection

This Quality Assurance (QA) Inspector performed random observation of ZPMC performing turn of the nut final tensioning of the bolt at PP23, PP24 and PP26. This QA Inspector observed ZPMC workers performing final bolt tightening of the 4 bolt securing angle inside the lower chevrons at both side of each of the panel point listed above at the direction of ZPMC QC Mr. Shen Jian Bo using the turn of the nut method. This QA Inspector observed ZPMC workers initially performed tightening of the first bolt at location PP23.0 after match marking only one end of the bolts at location. This QA Inspector informed Mr. Bo that the threaded fastener assembly needs to be match marked at both the nut end and bolt end in order to ensure proper tightness is obtained and that if the opposite end of the fastener turns that an unknown amount of tension will be obtained. Mr. Shen Jian Bo informed the workers that all fasteners need to be marked on each end of the assemblies prior to any turn of the nut tightening. ZPMC initially did not consistently perform initial match marking in a manner that clearly indicated the initial orientation of the nuts and at a few locations ZPMC did not fully attain a 180 degree rotation of the bolt as required by the specifications. When each of these problems were observed this QA Inspector informed ZPMC QC Mr. Shen Jian

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Bo who had the workers correct the problems. Bolt sizes used were observed as M22 x 65 RC Lot No. DHGM220021.

TRIAL ASSEMBLY YARD

This QA Inspector randomly observed the following work in progress

OBG segment 2AW-2BW

FCAW welding process of weld joint 220 located on PCMK SSD14A-PP017. Welder is identified as 058551 ZPMC QC is identified as Yang Ding. The welding variables recorded by QC appeared to comply with the WPS-345-FCAW-1G (1F) Repair.

OBG segment 1AAW-1AW

FCAW welding process of weld joint 004 located on PCMK OBW1A. Welders are identified as 220069 ZPMC QC is identified as Chen Bo. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T-1.

FCAW welding process of weld joint 003 located on PCMK OBW1A. Welders are identified as 200676 ZPMC QC is identified as Chen Bo. The welding variables recorded by QC appeared to comply with the WPS-B-T-2231T.

FCAW welding process of weld joint 003 located on PCMK OBW1A. Welders are identified as 053742 ZPMC QC is identified as Chen Bo. The welding variables recorded by QC appeared to comply with the WPS-B-T-2231T.

OBG segment 3AW-3BW

SMAW welding process of weld joint 005 located on PCMK SSD12-PP022. Welders are identified as 054467 ZPMC QC is identified as Yang Ding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G (2F) Repair.

Unless otherwise noted, all work observed on this dated 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 + (86) 15000422372, who represents the Office of Structural Materials for your project.

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Inspected By:	Utekar, Shrikant	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer
