

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-018385**Date Inspected:** 26-Nov-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:** Mr. Chen xi**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:** 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- 3

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07507.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Floor beam weld Components. Total number of welds MT Tested: 14 No's. The weld designations are review as follows:

1. SEG3019K-067,068,109,110,115,116,200,201,073,074,210,211
2. FB3286-001-358,359.

During QA Visual Testing and Magnetic Particle Testing (MT) review of welds located on Orthotropic Box Girder (OBG) 14 East Floor Beam hinge plate (FB) SEG3019K, this QA observed ZPMC welded two joints with an

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

excessive root opening. The root opening measured approximately 6 mm. The root opening exceeds the maximum tolerance specified in Caltrans approved Welding Procedure Specification WPS-B-T-2132-3 and AWS D1.5/2002 Section 3.3.1. The welds are identified as: SEG3019K-125,126. The floor beam web plate is Seismic Performance Critical Material (SPCM). The welds are Fillet welds joining to web plate identified as (X9651A-SPCM) to stiffener plate (X4656F). The fillet weld size is approximately 19 mm. The required fillet weld size is 15 mm. The web plate material thickness is 25 mm and stiffener plate is 45 mm.

This QA Inspector generated an incident report on this date for the above issue, for further information see the incident Report and attached photos.

BAY- 2

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint SA3414-001-001. Welder is identified as 045276. ZPMC Quality Control (QC) is identified as Mr. Zhu jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2231-TC-U4b-F.

FCAW of weld joint SA3415-001-002. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Zhu jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2231-TC-U4b-F.

BAY- 1

FCAW of weld joint E2-SB16A-003-001~012. Welder is identified as 067550. ZPMC Quality Control (QC) is identified as Mr. Ai wei. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2133.

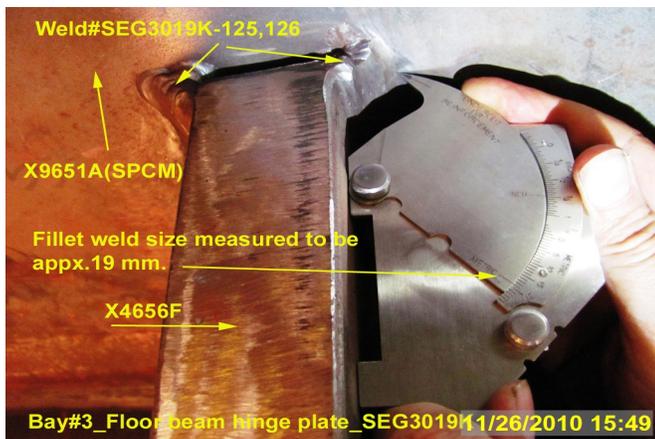
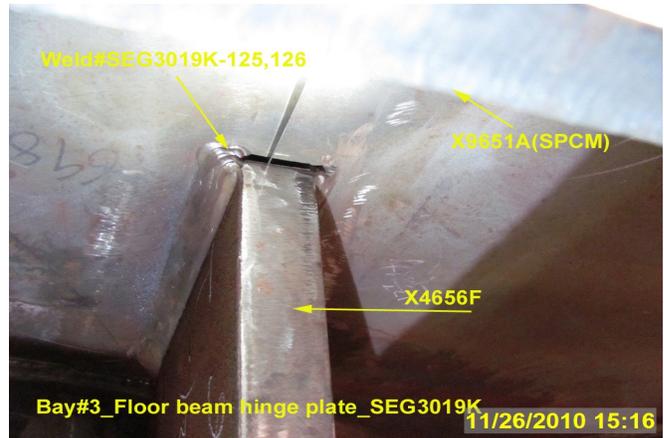
FCAW of weld joint E2-SB16A-002-126~131. Welder is identified as 068554. ZPMC Quality Control (QC) is identified as Mr. Yuan hai gang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint E2-SB1D-022-032~043. Welder is identified as 068916. ZPMC Quality Control (QC) is identified as Mr. Yuan hai gang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2133.

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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.

Inspected By: Prabhu,Surendra

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer