

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017717**Date Inspected:** 19-Oct-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:** Xu Le Feng**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 & OBG Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

TOWER JETTY

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007025

Visual Inspection Testing (VT)

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as TOWER Component. The identified component designations reviewed are as follows:

SOUTH TOWER LIFT-3, 89 M DIAPHRAGM (BOTTOM) PIPE RAIL

SSTL3 – 1D/K – 84; 85

Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as TOWER Component. The weld designation reviewed as follows:

SOUTH TOWER LIFT-3, 89 M DIAPHRAGM (BOTTOM) PIPE RAIL – GREEN TAG# 13641

SSTL3 – 1D/K – 84; 85

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BAY#10

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#10

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 43 located on Bike Path, top cover plate to side plate BK004A1 – 027. Welder is identified as 053869. ZPMC Quality Control (QC) Inspector is identified as Qiu Wen. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – Tc – U4c – F.

Weld joint # 19 located on Bike Path, BK004A8 – 027. Welder is identified as 053869. ZPMC Quality Control (QC) Inspector is identified as Qiu Wen. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

Weld joint # 43 located on Bike Path, top cover plate to side plate BK004A1 – 027. Welder is identified as 040302. ZPMC Quality Control (QC) Inspector is identified as Qiu Wen. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – Tc – U4c – F.

Weld joint # 20 located on Bike Path, BK004A6 – 027. Welder is identified as 057180. ZPMC Quality Control (QC) Inspector is identified as Qiu Wen. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

BAY#11

This QA Inspector observed the following work in progress

Fluxcored Arc Welding (FCAW):

Weld joint # 56 located on Bike Path BK005A4 – 003. Welder is identified as 042218. ZPMC Quality Control (QC) Inspector is identified as Zhao Mao Mao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Weld joint # 63 located on Bike Path BK005A4 – 003. Welder is identified as 049220. ZPMC Quality Control (QC) Inspector is identified as Zhao Mao Mao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Shielded Metal Arc Welding (SMAW):

Weld joint # 14 located on Bike Path, BK004A8 – 004. Welder is identified as 052493. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2212.

Weld joint # 14 located on Bike Path, BK004A6 – 022. Welder is identified as 041271. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2113.

BLAST SHOP#1

This QA Inspector observed the following work in progress

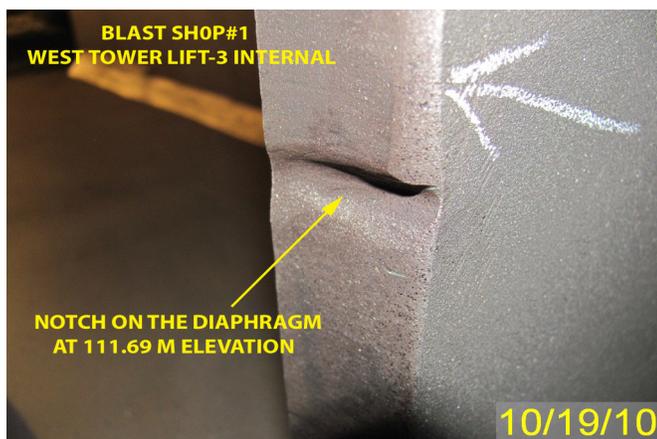
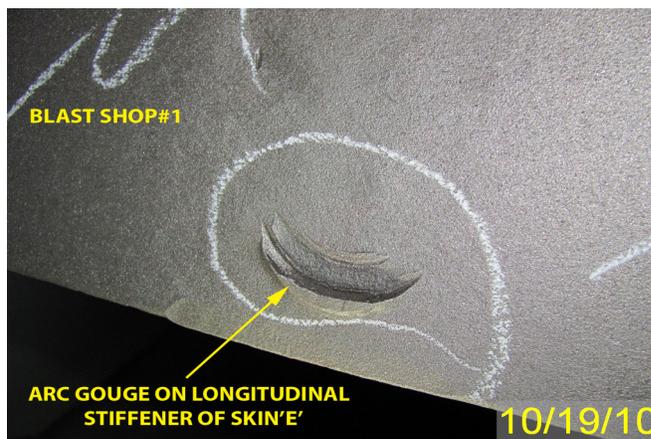
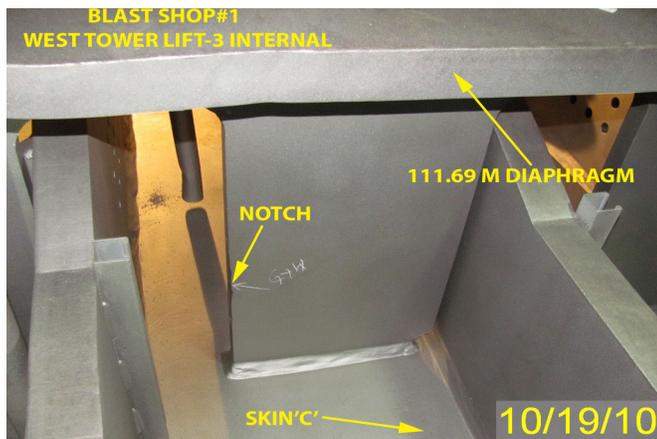
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During the Internal pre-blast visual inspection on West tower Lift-3, this Quality Assurance Inspector (QA) discovered the defects required welding and Magnetic particle testing on weld and base material at the following locations:

- 1) Skin 'A' – Arc Gouge –approximately 1000 mm from 102.5 M diaphragm in between 1st and 2nd stiffeners.
- 2) Skin 'B' – Porosity – fit-lug weld on 1st stiffener from skin 'C'.
- 3) Skin 'A' – Under-fill – 105.5 M diaphragm fit-lug weld on 1st stiffener from skin 'E'.
- 4) Skin 'D' – Porosity – 105.5 M diaphragm fit-lug weld on 2nd stiffener from skin 'C'.
- 5) Skin 'D' – Porosity – 105.5 M diaphragm fit-lug weld on 3rd stiffener from skin 'C'.
- 6) Skin 'D' – Porosity – 105.5 M diaphragm fit-lug weld on 4th stiffener from skin 'C'.
- 7) Skin 'A' – Porosity – 102.5 M diaphragm to skin weld near cope hole.
- 8) Skin 'D' – Porosity – 109 M diaphragm (Bottom) to skin weld, close to 2nd stiffener from skin 'E'.
- 9) Skin 'E' – Porosity – 109 M diaphragm (Bottom) fit-lug weld on 1st stiffener from skin 'D'.
- 10) Skin 'C' – Notch – 111.69 M diaphragm close to 1st stiffener from skin 'B' and approximately 160 mm from skin 'C'.
- 11) Skin 'B' – Arc gouge – 111.69 M diaphragm top of the 1st Longitudinal stiffener from Skin 'C'.
- 12) Skin 'E' – Arc gouge – top of the 1st Longitudinal stiffener from Skin 'D' and approximately 500 mm from 111.69 M diaphragm.

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



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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 Thomas Ho- 15002048250, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
