

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-024974**Date Inspected:** 28-Apr-2011**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:** OBG & TOWER 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.

BAY#10

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 08967

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:

TOWER COMPONENTS

NSD1-TL6-3C/D-21

NSD1-FFSA6-3-37; 38

NSD1-TPSA6P10; 18

NSD1-TL6-3B/D-68

NSD1-TPSA6-3-8

NSD1-CSA6-6-2

NSD1-FASA6-3-40; 44; 45

NSD1-CSA6-35-8

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NSD1-CSA6-38-1
NSD1-CSA6-40-7
NSD1-CSA6-42-6

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint #033 located on Bike path BK014A1-001. Welder is identified as 054069. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS-B-P-2212-Tc-U4c.

Weld joint #042 located on Bike path BK014A1-001. Welder is identified as 053829. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS-B-P-2212-Tc-U4c.

Flux Cored Arc Welding (FCAW):

Weld joint #008 located on Bike path BK014A1-001. Welder is identified as 054069. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS-B-T-2132-ESAB.

Weld joint #038 located on Bike path BK014A1-001. Welder is identified as 054069. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS-B-T-2132-ESAB.

BAY#11

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 08969

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:

WEST SHAFT TOP PLATE OF TOWER HEAD, LIFT-6
PLUG WELDING OF THE BOLT HOLES ON THE CHANNEL

BLAST SHOP#2

POST BLAST INSPECTION INTERNAL AND EXTERNAL OF TOWER HEAD, SOUTH SHAFT LIFT-6

Description of Inspection:

During the External & Internal post-blast visual inspection on South tower Lift-6, this Quality Assurance Inspector's (QA) discovered the defects required welding and Magnetic particle testing on weld and base material at the following locations:

- 1) Internal: Skin 'F' to 'G' weld– Undercut and Underfill – 100 mm from top of the weld.
- 2) Internal: Channel to top plate weld– Porosity – 130 mm from skin 'F'.
- 3) Internal: Base material arc gouge on skin 'D' – close to the weld of 2nd stiffener and approximately 1500 mm

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from skin 'E'.

4) Internal: Skin 'A' stiffener to skin weld - Under fill – between 2nd longitudinal and 2nd transverse stiffeners from skin 'E', 1350 mm from bottom of the skin 'A'.

For further information, please see the attached pictures below.

POST BLAST INSPECTION INTERNAL AND EXTERNAL OF TOWER HEAD, EAST SHAFT LIFT-6

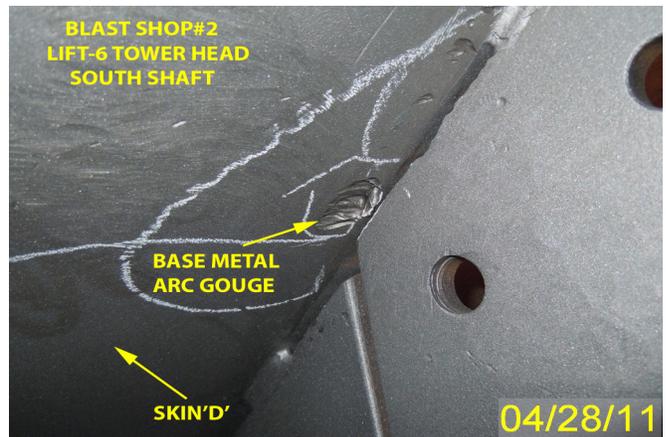
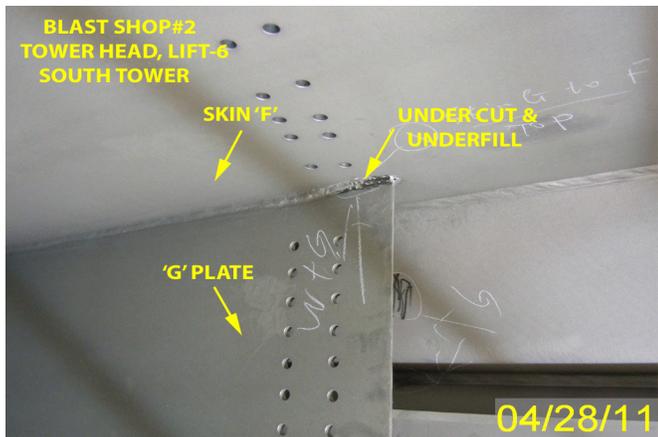
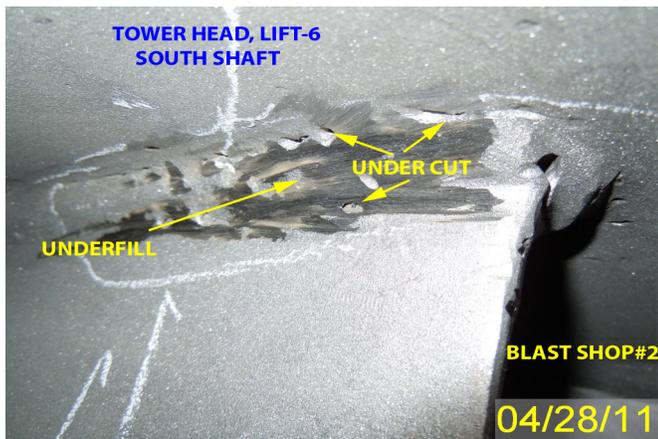
Description of Inspection:

During the External & Internal post-blast visual inspection on East tower Lift-6, this Quality Assurance Inspector's (QA) discovered the defects required welding and Magnetic particle testing on weld and base material at the following locations:

1) Internal: Skin 'F' – Bolt needs to be removed from bolt hole – third (3rd) hole from skin 'D'.

For further information, please see the attached pictures below.

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
