

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012056**Date Inspected:** 24-Jan-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:	Yu Dong Ping, Liu Zhong An	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	

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10 NORTH TOWER LIFT 2, GRATING BRACKETS (GREEN TAG NO. 11596)

This QA inspector performed random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. The members are identified as Tower Components. The weld designations reviewed are as follows.

GGSA4-31PLAN-53M-1~6-(1~6)-N
GGSA4-33PLAN-53M-1~7-(1~6)-N
GGSA4-35PLAN-56M-1~17-(1~6)-N
GGSA4-37PLAN-59M-1~12-(1~6)-N
GGSA4-39PLAN-62M-1~14-(1~6)-N
GGSA4-41PLAN-65M-1~3-(1~6)-N
GGSA4-43PLAN-65M-1~3-(1~6)-N
GGSA4-45PLAN-68M-1~14-(1~6)-N

BAY 11 EAST TOWER LIFT 4 A/E CORNER SEAM (123M & 131M DIAPHRAGM PARTS)

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This QA inspector performed Magnetic Particle Testing (MT) of approximately 15%, Ultrasonic Testing (UT) of approximately 10% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT and UT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

ESTL4-2B/L-60B (VT & MT)

ESTL4-2B/L-60A/B (UT)

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 11

EAST TOWER LIFT 5 A/E CORNER

SAW welding of weld joint 36A located on ESD1-TL5-2B/F.

Welder is identified as 042195. ZPMC QC is identified as Mr. Li Jun.

The welding variables recorded by QC appeared to comply with WPS-B-T-3221-Tc-U5-S-1.

TOWER STRUT WEB PLATE

SAW welding of weld joint 1B located on ND1-SA4-68-131M-6.

Welder is identified as 040699. ZPMC CWI is identified as Yu Dong Ping.

The welding variables recorded by QC appeared to comply with WPS-B-T-3221-Tc-U5-S-1.

BAY 10

SOUTH TOWER LIFT 4 A/E CORNER BACKFILL PLATE

SMAW welding of weld joint 40 located on SSSL4-1C/L.

Welder is identified as 052930. ZPMC CWI is identified as Mr. You Qi Guo.

The welding variables recorded by QC appeared to comply with WPS-B-T-3212-B-U2a-2.

SOUTH TOWER LIFT 4 A/E CORNER BACKFILL PLATE

FCAW welding of weld joint 99 located on SSSL4-1F/L.

Welder is identified as 066236. ZPMC CWI is identified as Mr. You Qi Guo.

The welding variables recorded by QC appeared to comply with WPS-B-T-4333-Tc-P4-F.

NORTH TOWER LIFT 4 D/E CORNER BACKFILL PLATE

SMAW welding of weld joint 86 located on NSTL4-3K/L.

Welder is identified as 057258. ZPMC QC is identified as Mr. Sun Tian Liang.

The welding variables recorded by QC appeared to comply with WPS-B-T-3212-B-U2a-2.

NORTH TOWER LIFT 4 D/E CORNER BACKFILL PLATE

FCAW welding of weld joint 20 located on NSTL4-3I/L.

Welder is identified as 201825. ZPMC QC is identified as Mr. Sun Tian Liang.

The welding variables recorded by QC appeared to comply with WPS-B-T-4332-Tc-P4-F.

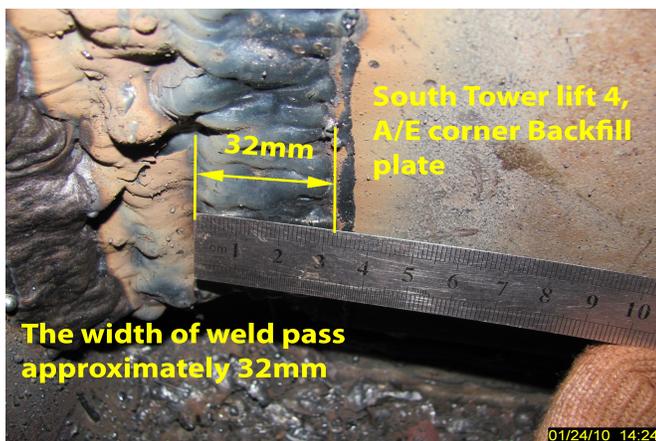
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During the Quality Assurance (QA) random in-process Visual inspection of South Tower lift 4, A/E corner Backfill plate at 143M Top diaphragm, this QA inspector observed the width of a weld pass measured to be approximately 30mm and the length of weld pass measured to be approximately 480mm. This Flux Core Arc Weld (FCAW) is a Partial Joint Penetration (PJP) groove weld performed in vertical position. The maximum FCAW weld pass width allowed in vertical position for groove weld is 25mm. The weld is identified as: SSTL4-1K/L-96. The weld joining the Backfill plate and skin E of South Tower lift 4. The material is designated as non Seismic Performance Critical Member (non SPCM). The member is located in Bay 10. This issue has an incident report.

The attached photographs provide additional detail.

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



Summary of Conversations:

Only general conversation was held between QA and 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 Skyler Guest : 15000422360, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer