

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015358**Date Inspected:** 29-Jun-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. Tian Lei / 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- 1

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) buttering welding of Traveler Rail 20TR1-020. Welder is identified as 215397. ZPMC Quality Control (QC) is identified as Mr. Ai Wei. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1. The buttering was performed as per the Critical Welding Report (CWR) No: B-CWR1568.

BAY- 2

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06086.

Ultrasonic Testing (UT)

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated UT report for this date. The members are identified as OBG Traveler Rail weld Components. Total number of welds UT Tested: 20 No's. The weld designations are review as follows:

1. 20TR1-002-001,003,005,007
2. 20TR1-012-001,003,005,007
3. 20TR1-011-001,003,005,007
4. 20TR1-006-001,003,005,007
5. 20TR1-007-001,003,005,007

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 Traveler Rail weld Components. Total number of welds MT Tested: 08 No's. The weld designations are review as follows:

1. 20TR1-002-001,003.
2. 20TR1-012-001,003.
3. 20TR1-011-001,003.
4. 20TR1-006-001,003.

FCAW of weld joint FB3178-001-140. Welder is identified as 045227. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

BAY- 3

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06081.

UT

This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated UT report for this date. The members are identified as OBG Traveler Rail weld Components. UT has been performed on Heat Straightening performed area. Total number of welds UT Tested: 65 No's. The weld designations are review as follows:

1. 10TR3-038-005,006,007,013,014.
2. 10TR3-034-005,006,007,013,014.
3. 10TR3-032-005,006,007,013,014.
4. 10TR3-031-005,006,007,013,014.
5. 10TR3-023-005,006,007,013,014.
6. 10TR3-011-005,006,007,013,014.
7. 10TR3-005-005,006,007,013,014.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

8. 10TR3-002-005,006,007,013,014.
9. 11TR1-021-005,006,007,013,014.
10. 11TR2-008-005,006,007,013,014.
11. 11TR2-013-005,006,007,013,014.
12. 11TR1-007-005,006,007,013,014.
13. 10TR3-015-005,006,007,013,014.

FCAW of weld joint FB3138-001-014. Welder is identified as 206386. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B- T-2132-3. Refer the attached photos for reference.

FCAW Repair welding of Floor beam weld joint FB3110-001-058. Welder is identified as 206623. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-3G (3F)-Repair. This weld has been rejected by ZPMC UT Technicians and recorded on UT report number B787-UT-13619. The Repair welding was performed as per the Welding Repair Report (WRR) No: B-WR13833. Refer the attached photos for reference.

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 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

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

Reviewed By: Hall, Steven

QA Reviewer