DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-010418
Date Inspected: 19-Nov-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 645
OSM Departure Time: 1845
Location: Shanghai, China

CWI Name: Liu Fawen

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Orthotropic Box Girder Components

Summary of Items Observed:

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

BAY 1

This QA Inspector observed the following work in progress:

Flux Core Arc Welding:
This process welding of weld joint # 004 located on Counter Weight CW001A – PP 048. Welder is identified as 054460. ZPMC QC is identified as Xiang Feng Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133 – B – L1a – F.

This process welding of weld joint # 128 located on Counter Weight CW001 – PP 070. Welder is identified as 059450. ZPMC QC is identified as Xiang Feng Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

This process welding of weld joint # 001 located on Counter Weight CW001A – PP 048. Welder is identified as 054460. ZPMC QC is identified as Xiang Feng Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

BAY 2

This QA Inspector observed the following work in progress:

Flux Core Arc Welding:
This process welding of weld joint # 093 located on Floor Beam FB3056 – 001. Welder is identified as 045209. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

This process welding of weld joint # 093 located on Floor Beam FB3054 – 001. Welder is identified as 045240. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

BAY 3

The following NDT inspection carried out as per the ZPMC submitted Notification No. 004678
Magnetic Particle Testing
This QA inspector performed MT of approximately 15% 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 OBG Component. The weld designations reviewed are as follows:
1. CA088 – 067~072; 109; 110
2. CA087 – 055~060; 107; 108
3. CA085 – 055~060; 107; 108
4. CA084 – 019~024; 101; 102
5. CA083 – 043~048; 105; 106
6. CA082 – 031~036; 103; 104
7. CA081 – 043~048; 105; 106
8. CA080 – 043~048; 105; 106
9. CA079 – 031~036; 103; 104

BAY 5

This QA Inspector observed the following work in progress:

Flux Core Arc Welding:
This process welding of weld joint # 006 located on Traveler Rail 11TR1 – 027. Welder is identified as 250353. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

This process welding of weld joint # 014 located on Traveler Rail 10TR3 – 031. Welder is identified as 215078. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

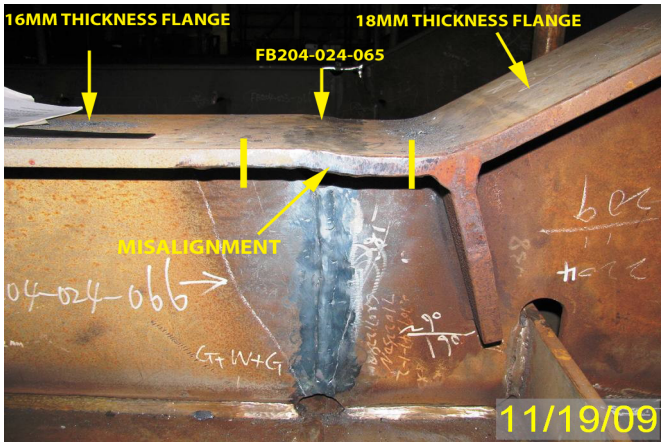
This process welding of weld joint # 010 located on Traveler Rail 11TR1 – 028. Welder is identified as 205390.

ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

BAY 6

This QA Inspector observed the following work not in compliance:
During random visual inspection in Cross Beam - 9 at Bay # 6, Caltrans Quality Assurance (QA) Inspector observed misalignment approximately exceeding 5mm at weld FB204 – 024 – 065 between straight to corner section of the floor beam diaphragm at panel point 24. In no case the misalignment shall be more than 3mm [1/8 in.] unless otherwise shown on the drawings.
Applicable reference: AWS D1.5 2002 section(s): 3
3.3.3 "Parts to be joined by groove welds shall be carefully aligned. Where the parts are effectively restrained against bending due to eccentricity in alignment, the offset from theoretical alignment shall not exceed 10 percent of thickness of the thinner part joined, but in no case shall be more than 3mm [1/8 in.]. In correcting misalignment in such cases, the parts shall not be drawn in to a greater slope than 12mm [1/2 in.] in 300mm [12 in.]."
This QA notified ZPMC QC identified as Mr.Liu Chuan Gang and ABF inspector identified as Mr. Chang Bao Qian of the above issue and that an incident report will be generated.
See attached photos:

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



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 Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer