

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-019066**Date Inspected:** 27-Dec-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. Huang min		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	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 (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- 7-Cross beam (CB)-CB19 (Segment tagging).

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07933.

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 CB Deck plate, bottom plate, side plate, diaphragms weld Components. Total number of welds MT Tested: 33 No's. The weld designations are review as follows:

1. CB3003A-019-009
2. CB3003K-002-125
3. CB3003J-002-190
4. CB3003J-001-014
5. BP3097-1-001-014

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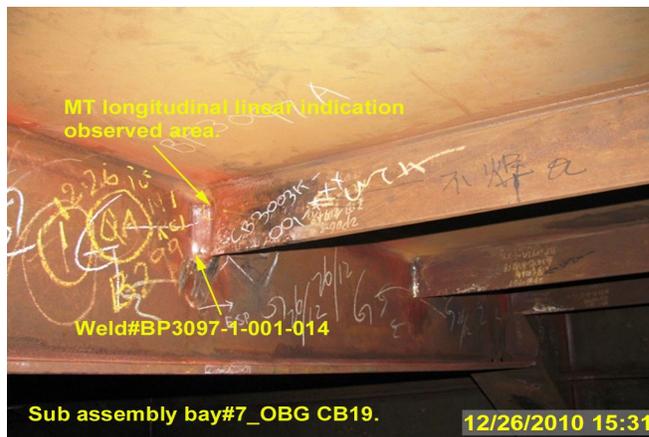
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6. DP3180-2-001-017,018,033
7. CB3003K-002-013,014,007,008,065,066,048,061,062
8. FB3245-001-049,050
9. DP3181-2-001-034
10. CB3003A-019-005
11. DP3182-2-001-010
12. CB3003J-002-018,016,091,092,083,013,014
13. CB3003K-001-061,062,089,090,013,014.

During QA MT review of welds located on OBG CB19, this QA observed One (1) Transverse crack measuring approximately 10 mm in length. The weld is identified as: CB3003J-001-014. The “Y” location is approximately 250 mm from East end cope hole. The weld is a fillet weld joining to floor beam diaphragm (FB3246A-SPCM) to deck plate (DP3180A-SPCM). One (1) Longitudinal Linear indication on weld toe measuring approximately 30 mm in length. The weld is identified as: BP3097-1-001-014. The “Y” location is approximately 5 mm from bottom cope hole. The weld is a CJP weld joining stiffener plate to bottom plate (BP3097A). Four (4) Transverse cracks measuring approximately 3~5 mm in length. The weld is identified as: CB3003A-019-009. The “Y” locations are approximately 450 mm, 995 mm, 1040mm and 1053 mm respectively from south end. The weld is a fillet weld joining intermediate plate (FB3240A-SPCM) to deck plate (DP3180A-SPCM). One (1) Longitudinal Linear indication on base metal near to weld toe measuring approximately 8 mm in length. The weld is identified as: CB3003K-002-125. The “Y” locations are approximately 10 mm and 3 mm from West end and weld toe respectively. The weld is a Complete Joint Penetration (CJP) weld joining floor beam diaphragm (FB3245A-SPCM) to plate (X4254E-SPCM). One (1) Transverse crack measuring approximately 8 mm in length. The weld is identified as: CB3003J-002-190. The “Y” location is approximately 0 mm from East end. The weld is a Complete Joint Penetration (CJP) weld joining floor beam diaphragm (FB3245A-SPCM) to plate (X4254E). All the material above is designated as Seismic Performance Critical Members (SPCM).

This QA generated an incident report for the above issues, for further information see the incident report and the attached photos.

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



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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
Reviewed By:	Hall,Steven	QA Reviewer
