

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-015906**Date Inspected:** 22-Jul-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:** Li Yang**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 Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 9CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA061-002, Deck Plate to Edge hold back weld. The welder is identified as #068097 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 9DE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG056A-028, Deck Plate to Edge hold back weld. The welder is identified as #067942 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

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Segment 9EE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA069-001, Deck Plate to Edge hold back weld. The welder is identified as #067942 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 9BW/9CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as DP672-001-020, Deck Plate I-rib splice. The welder is identified as #066261 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b.

Segment 9AW/9BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as EP111-001-013, Edge Plate I-rib splice. The welder is identified as #067765 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G (1F)-repair-1 for WR13942.

Segment 9BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP671-001-015, 016, Deck Plate I-rib hold back weld. The welder is identified as #069683 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

Segment 9CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP672-001-009, 010, Deck Plate I-rib hold back weld. The welder is identified as #069683 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Liu Hua Jie and Wang Zhu. The welding variables recorded by QC appeared to comply with the Applicable WPS.

QA Verification

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC MT personnel. The following items were tested:

9CE WT Stiffener and I-rib Stiffener holdback fillet welds

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EP164-001-009, 010
SP708-001-023, 024
SP302-001-041, 042
SP347-001-025, 026
SP374-001-029, 030
BP126-001-051, 052
DP711-001-014, 013

9DE WT Stiffener and I-rid Stiffener holdback fillet welds

BP127-001-051, 052
SP321-001-013, 014
SP348-001-001, 002
SP375-001-005, 006
EP165-001-005, 006
SP709-001-013, 014
DP712-001-008, 007

This QA Inspector observed ZPMC personnel performing Final Bolt tension verification on A325 high strength bolts on the following components:

9AE-9CE:

Upper and lower chevron splice plates at panel points 72 to 79

Bolts verified:

M22x70 Lot Number DHGM220009 (447 N.m.)

M22x75 Lot Number DHGM220034 (453 N.m.)

M22x80 Lot Number DHGM220091 (460 N.m.)

Approved Torque Wrench X02-114 was used.

9BE:

Side Plate WT stiffener splice plates east of panel points 74 and 75.

M22x65 Lot Number DHGM220105 (380 N.m.)

Approved Torque Wrench X02-666 was used.

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

Summary of Conversations:

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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, 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
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Reviewed By:	Peterson,Art	QA Reviewer
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