

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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005846**Date Inspected:** 31-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Japan Steel Works**Location:** Muroran, Japan

CWI Name:	Chung Fu Kuan		
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:** Tower, Jacking, and Deviation Saddles**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 at Japan Steel Works.

Welding Operation of Middle Stiffener plate to cast section of Tower Saddle: Tower Saddle Segment T1-1

The QA Inspector observed the partial-joint penetration groove weld operation on middle stiffener plates to tower saddle (cast section) of tower saddle segment T1-1. The QA Inspector observed QC Inspector Mr. Chung Fu Kuan verify prior to the start of the welding operation that the preheat temperature of 110 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. M. Matudate (08-5151) on middle stiffener plate weld no. 7ST-17 and the welding parameters of JSW welding personnel Mr. S. Watanabe (08-5159) on middle stiffener plate weld no. 7ST-16 were in compliance with WPS SJ-3012-8-1 per the FCAW process in the (1G) flat position. The QA Inspector observed that the welding operation was in process at the end of the QA Inspectors' shift.

Machining of Steel Segment: West Deviation Saddle Segment W2-E2

The QA Inspector observed that west deviation saddle segment W2-E2 is located in Machine Shop #2 to have the final machining performed. The JSW machinist on this date was not performing the milling operation on the inside of the trough section. The QA Inspector observed that west deviation saddle segment W2-E2 was being repositioned and was in process at the end of the QA Inspectors' shift.

Faying Surfaces on (steel section): West Deviation Saddle Segment W2-E1 (After PWHT and Final Machining)

The QA Inspector observed that the magnetic particle testing (MPT) indications previously located by NIS

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Quality Control Non-Destructive Testing technician Mr. A. Seino by the wet method were removed by the use of a grinding (dremel tool) on the faying surface of west deviation saddle segment W2-E1 (steel section) that mates to the west jacking saddle were ground and measured to determine if JSW would be required to perform weld repairs to these areas or to submit an RFI to the Engineer to leave in the as ground condition- (based on the depth of the areas ground) and also provided that the minimum contact surface is within the contract specifications.

Grinding operation of Steel Section: West Deviation Saddle Segment W2-E3 (After PWHT)

The QA Inspector observed JSW personnel performing the grinding operation on the rib plates and stem plate's prepared edges (face of bevels) of west deviation saddle W2-E3 (steel section). These areas that are being prepared by grinding were difficult to be machined. The JSW personnel are grinding to the scribe lines (layout marks and punch marks of the final dimension of the groove area) prior to the fit-up operation of west deviation saddle W2-E3 (cast section) The QA Inspector observed that the grinding operation was in process at the end of the QA Inspectors' shift.

Machining of Steel Section: West Deviation Saddle Segment W2-W1 (After PWHT)

The QA Inspector observed that west deviation saddle segment W2-W1 is in Machine Shop #4 to have the root face dimension machined (partial-joint penetration groove welds) on the stem and ribs so the fit-up tolerances will meet the mill to bear surface requirements per the approved shop drawings and the contract specifications. The QA Inspector observed that no machining was performed on this date.

Grinding operation on Rib steel section to Rib cast section: Tower Saddle Segment T1-2

The QA Inspector observed JSW personnel performing the grinding operation after the shield metal arc welding root pass was completed and afterwards back-gouged from the opposite side of the complete-joint penetration groove weld. The grinding operation is being performed on rib (steel section) to rib (cast section) weld 8Y5U-1, 8Y5U-2, and 8Y5U-3 of tower saddle segment T1-2. The QA Inspector observed that the grinding operation was in process at the end of the QA Inspectors' shift.

Fit-up operation on Steel Section: West Deviation Saddle Segment W2-W2

The QA Inspector observed the fit-up and tack-weld operation on rib plates (5-5, 5-13, and 5-14) to base plate and stem plate of west deviation saddle segment W2-W2. The QA Inspector observed QC Inspector Mr. Chung Fu Kuan verify prior to the start of the tack-welding operation that the preheat temperature of 160 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. Y. Ohta (08-2017) were in compliance with WPS SJ-3011-11 per the SMAW process in the (2G) and (3G) horizontal and vertical position. The QA Inspector observed that the tack-welding operation was completed at the end of the QA Inspectors' shift.

Fit-up operation pending of Steel Section to Cast Section: Tower Saddle Segment T1-3

The QA Inspector observed that tower saddle (steel section) T1-3 is ready to be fit to tower saddle (cast section) T1-3. On this date, JSW welding personnel are performing the buttering operation (multiple surface weld layers) on rib (cast sections) 9Y-12U-1, 9Y-8U and 9Y-5U-3 on the square edge for the full length and width of the rib. The fit-up of tower saddle (steel section) T1-3 to tower saddle (cast section) T1-3 will be performed at a later date. The Caltrans METS QA Inspector Mr. Mike Brcic is monitoring the buttering operation on rib (cast sections) 9Y-12U-1, 9Y-8U and 9Y-5U-3 of tower saddle T1-3 on this date.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with

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applicable contract documents.

Summary of Conversations:

No significant conversations were reported on this date.

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 Nina Choy, 510 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson, Art	Quality Assurance Inspector
Reviewed By:	Lanz, Joe	QA Reviewer
