

**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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005165**Date Inspected:** 12-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Japan Steel Works**Location:** Muroran, Japan**CWI Name:** Chung Kuan**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:** Tower, Jacking and Deviation Saddles**Summary of Items Observed:**

## Steel Structure Welding Shop:

T1-1 Tower Saddle Casting and Steel Structure joint section: Caltrans Quality Assurance Inspector (QAI) representative observed three Japan Steel Works (JSW) welders perform Flux Cored Arc Welding (FCAW) process on rib plate welds #7Y-6U-1, 7Y-9U-2 and 7Y-9U-3 of T1-1 tower. These three welds are connecting to casing and steel structure. The filler metal used for FCAW is Hoballoy wire TM-55, 1.6 diameter made by Hobart Brothers, USA. The parameters used for FCAW welding were conducted in accordance with Caltrans approved WPS #SJ-3011-6. The FCAW welding process and parameters have been monitored and recorded by CWI inspector Mr. Chung Kuan. Based on Caltrans QA observation, the FCAW welding operation appeared to be in general compliance with requirements of AWS D1.5 2002 and Caltrans contract documents.

W2E2 West Deviation Saddle Casting and Steel Structure joint section: Caltrans QA Inspector representative observed two JSW welders perform permanent fit up on the W2E2 west deviation saddle casting and steel portion joint section. The gap and alignment of rib plates and stem plates are adjusted to meet the requirement of approved drawing after connected to bevel surface, numerous U-shape steel supports are welded evenly spaced around both casting and steel portion to secure the saddle. Base on Caltrans observation, no discrepancies were noted. The temporary reinforcing supports will start welding on the saddle tomorrow.

## Casting Shop:

W2E3 and W2W3 West Deviation Saddle casting: Caltrans QAI observed two JSW workers perform grinding process on exterior rough surface of rib sides for W2E3 and W2W3 west deviation saddles after arc-gouging. Grinding process is to remove all the exceed metal, oxide film and slag caused by gouging. Base on Caltrans observation, no discrepancies were noted.

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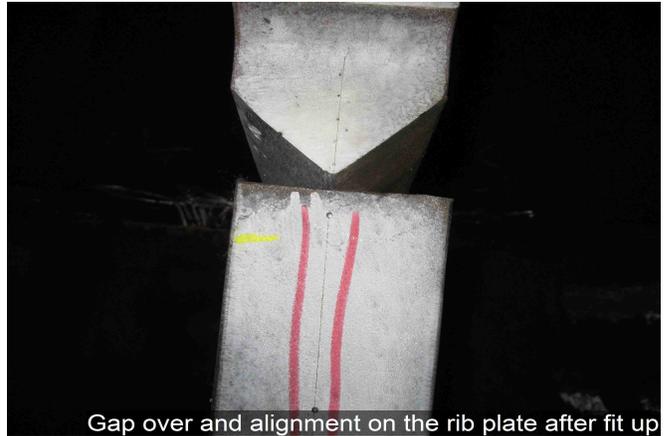
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U-shape steel support secure the casing and steel portion



Gap over and alignment on the rib plate after fit up



Welder weld support around W2E2 structure



The gap over and alignment for the stem plate after fit up

## Summary of Conversations:

As Note within the report above.

## 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.

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**Inspected By:** Pau,Wai

Quality Assurance Inspector

**Reviewed By:** Lanz,Joe

QA Reviewer

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