

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-003404**Date Inspected:** 17-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island**CWI Name:** See below**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:** Skin plates**Summary of Items Observed:**

The name of ABF Certified Welding Inspector (CWI) are Mr. Wang Cheng Jun, Mr. Wei Jian Bo, Miss. Xie Yan and Mr. Yang Yi Heng.

Submerged Arc Welding (SAW) process on longitudinal stiffener plate and skin plate (Tower Bay#1 and Bay#2):

Caltrans QAI observed ZPMC welding operators performed semi-automatic SAW on the splice weld of ASTM

709 345 skin plate P210 to P197 to P212 to P71 to P76 to P70 with 60mm to 90mm wall thickness, weld#

SSD1-SA179D/E-26B, SSD1-SA179D/E-27B, SSD1-SA179D/E-29B, SSD1-SA179D/E-1B,

SSD1-SA179D/E-4B, SSD1-SA179E/E-6, SSD1-SA179E/E-10, SSD1-SA179E/E-16 SSD1-SA179E/E-17

(Bay#1), skin plate P1405 to P40 to P75 to P1291 with 45mm to 65mm wall thickness, weld#

ESD1-SA294G/G-8B, ESD1-SA294F/G-156, ESD1-SA294G/G-54, ESD1-SA294G/G-58B (Bay#2), longitudinal

stiffener plate P352A to P352B with 60mm wall thickness, weld# ESD1-SA237A/F-23B (Bay#2), longitudinal

stiffener plate P708 to P223A with 60mm wall thickness, weld# ESD1-SA216F/K-6B (Bay#2). The weld designed

is a double -V-groove with welding conducted in the in flat position (1G) with proper 4.8mm diameter wire feed

electrode JW3 and flux/J1-B, made by China Company and completed with approximate five pass. The parameters

used for SAW welding of splice weld was conducted in accordance with Caltrans approved WPS-B-T-2221-B-U3.

The semi-automatic SAW was monitored and recorded by ZPMC QC and ABF Certified Welding Inspector

(CWI). Based on Caltrans QAI observations, no discrepancies were noted.

Magnetic particle testing (MT) on tack welds of deck penal (OBG Bay #1): Caltrans QAI performed QA MT

testing on tack welds of deck penal numbered DP541-001, the test welds deposited on weld # 001 to 006 of U15,

U11 and U26. The grease, rust, scale and other moisture have been removed by ZPMC workers prior MT testing.

The power source of MT testing is used electromagnetic yoke with Alternating Current (AC) made by Magnaflux.

The detection media is used dry red ferromagnetic particles. The QA MT testing of weld areas appeared to be in

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compliance with the requirements of AWS D1.5 (2002) and Caltrans contract documents.

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 Wahbeh Mazen (818)292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
