

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029725**Date Inspected:** 21-Jun-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** USA Hoist**Location:** Crest Hill, IL**CWI Name:** Robert Zimny**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:** SAS Tower Elevator**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at USA Hoist, Crest Hill, IL as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At USA Hoist assembly shop, qualified welder Matt Wasiqi was observed continuing to perform fillet welding the tower tie-in brackets for the tower elevator per USA Hoist shop drawing #914204-17. The welder was noted using the gas shielded Flux Cored Arc Welding (FCAW-G) with 1.1mm E71T-1C Familiarc DW-50 wire electrode and implementing welding procedure specification FCAW 3210. The shielding gas being used was noted a combination of 75% Argon and 25% CO2 with flow rate of 38 CFH. During the shift, the working welding parameters were measured 29 volts and 235 amperes which deemed in compliance to the project requirements. This QA randomly checked the workmanship and measured the required ¼" fillet on all sides of the stiffener which was found in compliance to the requirement.

Another USA Hoist qualified welder Andres Luna was observed continuing to perform fillet welding the same tower tie-in brackets for the tower elevator as mentioned above. The welder was noted using the same process and implementing the same welding procedure specification. The welder was noted using gas shielded FCAW-G with 1.1mm E71T-1C Familiarc DW-50 wire electrode implementing USA Hoist Welding Procedure Specification FCAW 3210. The shielding gas being used was noted a combination of 75% Argon and 25% CO2 with flow rate of 40 CFH. During the shift, the working welding parameters were measured 27 volts and 200 amperes which deemed in compliance to the project requirements. This QA randomly checked the workmanship and measured the required ¼" fillet on all sides of the stiffener which it was found in compliance to the requirement. With the two

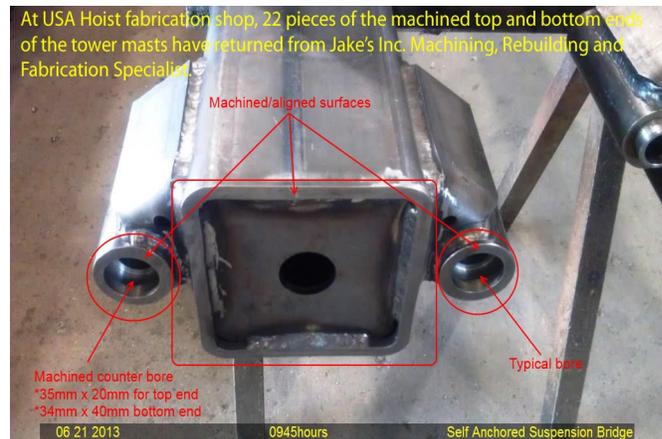
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welders welding side by side on the tower tie-in brackets, approximately 50 pieces out of 142 pieces required were completed as of to date.

This QA has noted that some of the fabricated tower masts that have the connection tubes welded on top end and bottom end of the mast have returned from Jake's Inc. Machining, Rebuilding and Fabrication Specialist. The top end and bottom end of the tower masts including the 150mm long x 50mm diameter tube (mating) connector have been counter bore machined with 35mm inside diameter x 20mm deep at the top end and 34mm inside diameter x 40mm deep at the bottom end at this shop. According to the shop foreman Genaro Ulloa, he will perform trial fit on some of the machined tower masts and see if they sit properly on top of each other. The following machined elevator tower masts that returned were noted;

1. 914200-15R
2. 914200-10R
3. 914200-9R
4. 914200-2R
5. 914200-19R
6. 914200-7R
7. 914200-18R
8. 914200-17R
9. 914200-39R
10. 914200-32R
11. 914200-21R
12. 914200-6R
13. 914200-5R
14. 914200-34R
15. 914200-31R
16. 914200-36R
17. 914200-32R
18. 914200-44R
19. 914200-14R
20. 914200-8R
21. 914200-3R



Summary of Conversations:

No significant conversation occurred today.

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 SMR Gary Thomas 916-764-6027, who represents the Office of Structural Materials for your project.

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Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Foerder, Mike

QA Reviewer