DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-029721
Date Inspected: 17-Jun-2013

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: USA Hoist

OSM Arrival Time: 700
OSM Departure Time: 1530
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.

Today at USA Hoist assembly shop, this QA randomly observed USA Hoist qualified welder Jose Dominguez continuing to perform fit up and tack welding the 13 ½" long x 5 ½" wide x 3/8" thick triangular shape stiffener plate to 14" x 6" x 1/2" thick 90° bent plate front tie-in bracket per USA Hoist shop drawing #914204-14. The welder was noted tack welding the stiffener plate 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 35 CFH. Without completing the fit up on front tie-in brackets, the welder started perform fit up and tack welding on the tower bracket per USA Hoist shop drawing #914204-18. The tower bent plate bracket was measured 16 ½" long x 11" wide x ½" thick with 13" long x 7 ½" wide x ½" thick stiffener plate being tack welded at the middle of the tower bracket. The welder just tack welded two pieces of the tower bracket then tried bolting together the three different brackets (tower tie-in bracket, front tie-in bracket and rear tie-in bracket). When the foreman was asked about the brackets assembly, he told this QA that it is satisfactory. The plates were noted sitting properly and there was no interference with the different brackets.

At the same assembly shop, another USA Hoist qualified welder Matt Wasiqi was observed continuing to perform fillet welding the same front tie-in brackets for the tower elevator as the other welder was performing fit up and tack welding. 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 38 CFH. During the shift, the working welding parameters were measured 29 volts and 230 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. With the number of brackets to be welded (146 pieces), fillet welding should continue until the end of the week.

Another USA Hoist qualified welder Andres Luna was observed perform fillet welding the same front 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 26 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 welders welding side by side on the front tie-in brackets, approximately 85 pieces were completed as of to date.

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.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Foerder,Mike	QA Reviewer