

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-029672
Date Inspected: 10-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.

At USA Hoist assembly shop, this QA randomly observed USA Hoist welder Matt Wasiqi continuing to perform 1F fillet welding between the 4 1/2" x 3' x 3/8" thick stiffener plate and 5" x 3 1/2" x 1/2" thick bent plate rear tie in bracket. The 1/4" fillet weld is being welded per USA shop drawing 914204-11 and there is a total 142 pieces of this bracket. 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 35 CFH. During the shift, the working welding parameters were measured 29 volts and 230 amperes which deemed in compliance to the project requirements. At the end of the shift, 1/4" fillet welding on all sides of the stiffener plate to the 142 pieces of rear tie in bracket was completed.

At the same assembly shop, another USA Hoist qualified welder Jose Dominguez was observed fillet welding the same rear 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 35 CFH. During the shift, the working welding parameters were measured 28 volts and 225 amperes which deemed in compliance to the project requirements. This QA randomly checked the workmanship and measured the

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required 1/4" fillet on all sides of the stiffener which was found in compliance to the requirement. With the two welders welding side by side on the rear tie-in brackets, all 142 pieces of the brackets were completed.

At USA Hoist assembly shop, this QA randomly observed USA certified welder Manolo Luna continuing to grind and clean the fillet weld repairs on the 1 3/4" diameter x 7/8" thick rack pad to the 6" x 6" x 3/8" thick tube steel mast. While the welder was grinding/cleaning the fillet weld repairs, this QA has randomly verified the size and the profile of the repairs which was found acceptable to the required 1/4" fillet.

At the same assembly shop, USA Hoist have received the 142 pieces of bent plate tower tie-in brackets per USA Hoist drawing #914204-18 and 152 pieces of bent plate front tie-in brackets per USA Hoist drawing #914204-15 from the other shop that made the bending few days ago. According to the USA Hoist shop foreman Genaro Ulloa, when they measured the degree of bend on those mentioned brackets they found out that it was not up to the required bend. Due to this issue, all the brackets just mentioned were sent back to the shop where they were done and to bend them to the required 90 degree. These two different brackets will be welded with stiffener on the middle of each bracket.



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