

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-026785**Date Inspected:** 23-Nov-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1200**Contractor:** Metaltek Fabricating Inc**Location:** Job Site**CWI Name:****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

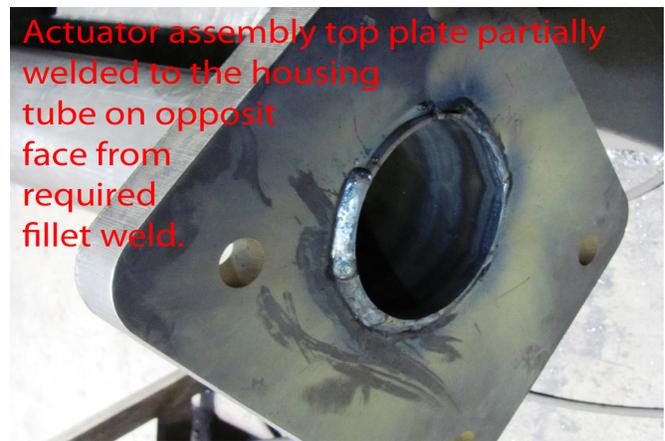
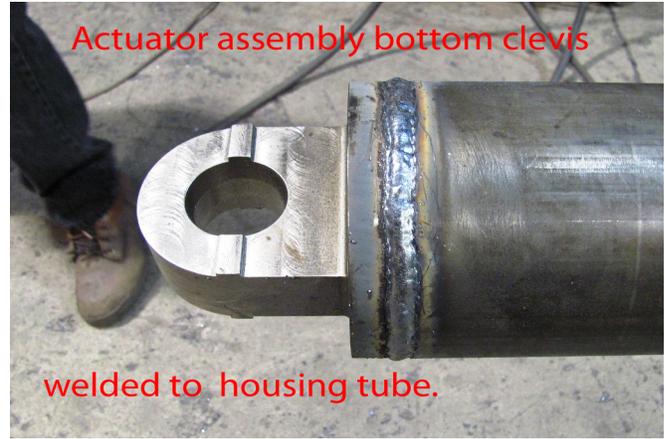
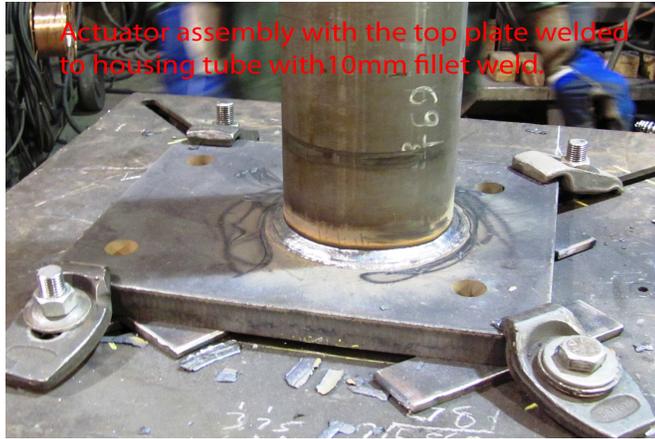
Bridge No: 34-0006**Component:** Traveler**Summary of Items Observed:**

This Quality Assurance (QA) Inspector arrived at Metaltek Fabricating Inc., in University Park, Illinois. as requested to witness fabrication of linear actuator housings.

On this date, QA inspector met observed welder Mark Seferodic with the first actuator assembly in a rotating fixture with the bottom clevis tack welded to the housing tube. The complete joint penetration (CJP) groove weld was detailed as shown on shop drawing REF12967-1 detail A. Welding of the root pass was performed using the Flux Cored Arc Welding (FCAW-G) process for the complete joint penetration (CJP) groove weld. The welding was performed utilizing the Welding Procedure Specification (WPS) FC-101 in the flat (1G) welding position. The FCAW-G root pass average amperage of 210 DC, voltage of 27 DC at the welding lead and average travel speed of 305 millimeters per minute were verified to be out of the WPS parameter ranges of 216 to 264 DC amps, 24 to 28 DC volts and travel speed of 178 to 280 millimeters per minute by the QA inspector. The QA inspector brought this issue to the attention of the welder, who immediately raised the amperage to 220 amps and lowered the positioned travel speed to 255 millimeters per minute. Welding of this weld was then completed with no further issues. The welder then reversed the assembly in the positioner to weld the top plate to tube 10mm fillet weld as shown on shop drawing REF12967-1 detail B. The same welding parameters were utilized for this weld. After completion of the fillet weld the assembly was removed from the positioner and the welder began welding the section of tube that extended above the top plate. This QA inspector informed the welder that this location did not get welded. He then reviewed the drawings with Mr. Stohr. Mr. Stohr observed that this weld would interfere with assembly and contacted the machine shop to see if this weld could be removed by machining to restore the tube end to the original dimensions. No further welding was performed on this assembly.

WELDING INSPECTION REPORT

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Summary of Conversations:

Relevant conversations are noted 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.

Inspected By: Lanz, Joe

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer
