

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 #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006522**Date Inspected:** 30-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR

CWI Name:	Steve Barnett		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Hinge-K Components**Summary of Items Observed:**

Summary of Items Observed: On this date, Caltrans Quality Assurance Inspector (QA) Clete Henke was present at Oregon Iron Works, Inc. (OIW) in Clackamas, OR for observation of fabrication of the Hinge K Pipe Beams and related activities including in process welding and OIW Quality Control (QC) visual and nondestructive testing. The following observations were recorded:

OIW Fabrication Shop-Bay 3

Hinge-K Pipe Beam Fuse Sub-Assembly 120A-5:

a125 stiffener ring to a124-2 Fuse

The QA Inspector intermittently monitored OIW welder Yuriy Bannikov (WID B61) during in progress Submerged Arc Welding (SAW) at weld joints WM3-09 and WM3-11 joining a125 stiffener rings to a124-2 Fuse Section. The QA Inspector noted that weld joint WM3-09 was completed shortly after the beginning of the shift. Weld joint WM3-11 was subsequently fit-up and tacked utilizing approved Flux Cored Arc Welding (FCAW) welding procedure 3049 after extensive grinding at edges of a125 ring stiffener in order to facilitate fit-up. Welder B61 deposited SAW root, fill and cover passes in the flat (1G) position in accordance with approved welding procedure 4020 at the locations referenced above. The QA Inspector noted the OIW welder was maintaining continuous preheat utilizing two torches. An OIW helper was observed assisting welder B61 during SAW process.

OIW QC Inspector Steve Barnett notified the QA Inspector that the root pass on WM3-11 was complete and QC Visual Inspection (VT) and Magnetic Particle Testing (MT) had been performed with no rejectable indications located. The QA Inspector subsequently performed 100% VT at the location noted above, finding the completed root pass to be in general compliance with contract documents. The QA Inspector observed OIW QC Inspector Steve Barnett regularly monitoring and recording the in process SAW parameters. The QA Inspector also

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intermittently observed in process welding parameters and determined that the SAW parameters and minimum preheat/interpass temperature appeared to be in general compliance with the contract requirements.

Hinge-K Pipe Beam Fuse Assembly 120A-4:
a124-13 to a124-4

With the exception of the maintenance of continuous pre-heat, the QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Base Assembly 102A-1:
a111-1 forging to a110-4 base plate

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Base Assembly 102A-2:
a111-2 forging to a110-2 base plate

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Fuse Assembly 120A-1:
a124-6 to a124-7

The QA Inspector noted upon arrival that Fuse Assembly 120A-1 had returned from A & G Mechanical where it had undergone rough machining as described in approved shop drawings 2244-FP-4 & 2244-122. OIW QC Inspector Steve Barnett subsequently notified the QA Inspector that he was preparing to initiate 100% Magnetic Particle Testing (MT) at exterior milled surface per contract requirements. The QA Inspector noted that Mr. Barnett was engaged in the testing described above intermittently for the duration of the shift.

Hinge-K Pipe Beam Fuse Assembly 120A-2:
a124-3 to a124-11

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Fuse Assembly 120A-3:
a124-10 to a124-12

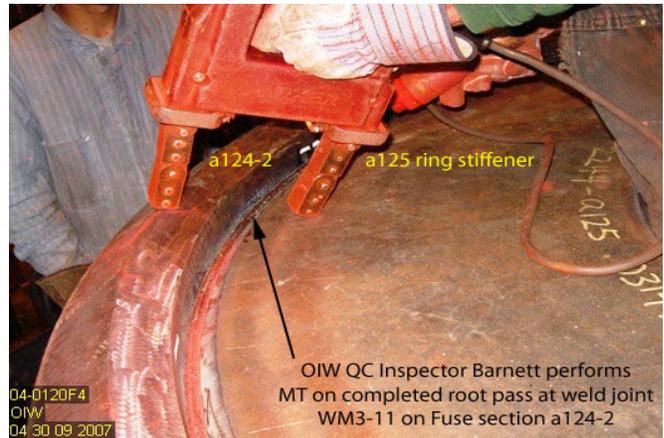
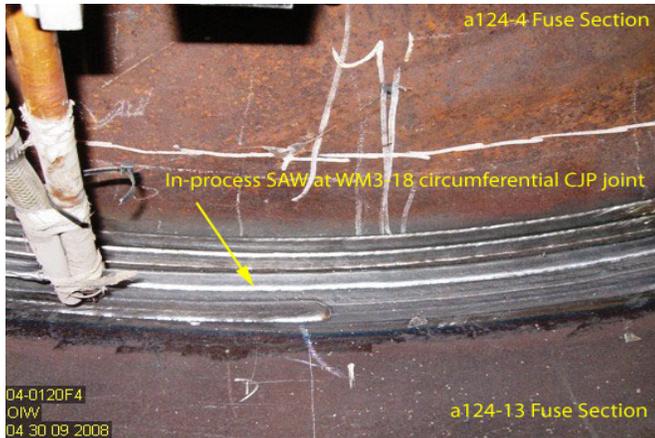
Fuse Assembly 120A-3 was transported to A & G Mechanical for rough machining.

Material, Equipment, and Labor Tracking:

The QA Inspector performed verification of personnel involved with this project and equipment in use. The QA Inspector accounted for 3 OIW production personnel and 1 Quality Control Inspector present on this date.

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Summary of Conversations:

As noted in the body of the report.

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 Mohammad Fatemi (916) 813-3677 , who represents the Office of Structural Materials for your project.

Inspected By: Henke,Clete

Quality Assurance Inspector

Reviewed By: Adame,Joe

QA Reviewer