

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-006700**Date Inspected:** 12-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** Mike Gregson, Rob Walters**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:** Hinge K Pipe Beams**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

OIW Fabrication Shop-Bay 3

Hinge-K Pipe Beam Assembly 102A-1: 5/12/09

a111-1 Forging to a110-1 Base Plate

QA Inspector noticed this weld joint #W2-12/W2-13 was currently sitting idle, with a pending critical weld repair.

Hinge-K Pipe Beam Assembly 102A-2: 5/11/09

a111-2 Forging to a110-2 Base Plate

QA Inspector noticed welder #J6, Mr. Craig Jacobsen, performing backgouging on the weld joint designated as #W2-12/W2-13 and QC Inspector Rob Walters was present to verify depth/length and perform 100% magnetic particle testing, on completed excavation.

Hinge-K Pipe Beam Assembly 102A-3: 5/12/09

a111-3 Forging to a110-3 Base Plate

QA Inspector witnessed QC Inspectors Mike Gregson and Rob Walters performing ultrasonic weld inspection on

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the CJP (AWS D1.5 TC-U9a-S), a111-3 forging to a110-3 base plate, weld joint designated as #W2-12/W2-13. QA Inspector noted that QA Inspector Clete Henke had previously performed approximately 10% ultrasonic weld inspection and found 3 rejectable indications. QA Inspector spoke with QC Inspector Mike Gregson and Mr. Gregson explained that the rejectable indications were verified and would require a non-critical weld repair.

Hinge-K Pipe Beam Assembly 102A-4: 5/12/09

a111-4 Forging to a110-4 Base Plate

QA Inspector noticed that this assembly 102A-4 had been transferred to OIW Bay 3 from OIW South storage yard and was sitting idle.

Hinge-K Pipe Beam Fuse Assembly 120A-1: 5/12/09

a124-6 Half Fuse to a124-7 Half Fuse

QA Inspector noticed this fuse assembly 120A-1 was sitting idle in OIW Bay 3, pending the stainless steel overlay process.

Hinge-K Pipe Beam Fuse Assembly 120A-2: 5/12/09

a124-3 Half Fuse to a124-11 Half Fuse

QA Inspector noticed this assembly 120A-2 was sitting idle, with a pending critical weld repair.

Hinge-K Pipe Beam Fuse Assembly 120A-3: 5/12/09

a124-12 Half Fuse to a124-10 Half Fuse

A & G Machining

See summary of conversations below.

Hinge-K Pipe Beam Fuse Assembly 120A-4: 5/12/09

a124-13 Half Fuse to a124-4 Half Fuse

QA Inspector noticed this fuse assembly 120A-4 was sitting idle, pending transfer to A&G Machining, for rough machining.

Hinge-K Pipe Beam Fuse Assembly 120A-5: 5/12/09

a124-14 Half Fuse to a124-2 Half Fuse

QA Inspector noticed the a124-14 half fuse was being fit up to the a124-2 half fuse, in preparation for submerged arc weld tacking, on this CJP (AWS D1.5 B-U3c-S) splice, weld joint designated as #WM3-18. QA Inspector previously measured a bevel angle of 30 on the a124-14 and a124-2 half fuse assemblies, (60 included angle) and 6mm land on the joint preparation.

QA Inspector noted this joint preparation appeared to be in compliance with the approved drawings and contract requirements.

Hinge-K Pipe Beam Sub-Assembly a124-9: 5/12/09

a125 & b125 Ring Stiffeners to a124-9 Half Fuse

QA Inspector noticed this a fuse sub-assembly a124-09 had been previously transferred from the OIW South storage yard to OIW fabrication shop and was sitting idle, pending SAW of the internal ring stiffeners, a125 and b125.

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Material, Equipment, and Labor Tracking

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works: 5 OIW production personnel and 2 QC Inspectors. The following personell were present at A & G Machine: 1 A&G supervisor and 1 A&G machinist loading the 120A-3 fuse assembly on a trailer.

Summary of Conversations:

Lead QA Inspector Joe Adame explained that he had spoken with A&G and A&G explained that the rough machining on the exterior of fuse assembly 120A-3 was complete and was in-process of being transferred back to OIW fabrication shop for 100% magnetic particle testing on the exterior machined surface. See A&G pictures below of fuse assembly being loaded on a trailer.



Summary of Conversations:

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

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer
