

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-010426**Date Inspected:** 19-Nov-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, Jose Salazar**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:

AG Machining

Hinge-K Pipe Beam Fuse Assembly 120A-1: 11/19/09

a124-6 Half Fuse to a124-7 Half Fuse

QA Inspector arrived at AG Machine shop, on this date and noted that AG was in-process of the 1st machining cut pass, on this fuse assembly 120A-1. QA Inspector spoke with AG machinist and AG explained that the 1st. machining cut pass had started in the a.m. and was approximately 12" (300mm) in and was set to a cutting depth of approximately .150" (4mm). AG explained that no visible indications were present at this time, on the machined, exterior overlay surface. AG explained that this 1st cut pass would probably be completed on 11/23/09 and the 2nd cut pass will then be set and machining will continue on 11/23/09. See attached pictures below.

Note: QA Inspector noted that multiple surface indications had been present, on the prior fuse assembly 120A-1 exterior overlay surface, during final machining. QA Inspector noted that the surface indications appeared into the second cut pass (2nd layer of ESW) that OIW had previously welded. AG had previously informed OIW of the indications and OIW had completed in process TIG repairs and the assembly was sent back to OIW for one additional layer of 316L ESW overlay. AG explained, on this date, that OIW will be continuously updated on the final machining, of fuse assembly 120A-1 and OIW will decide how to proceed with overlay repairs, if any.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

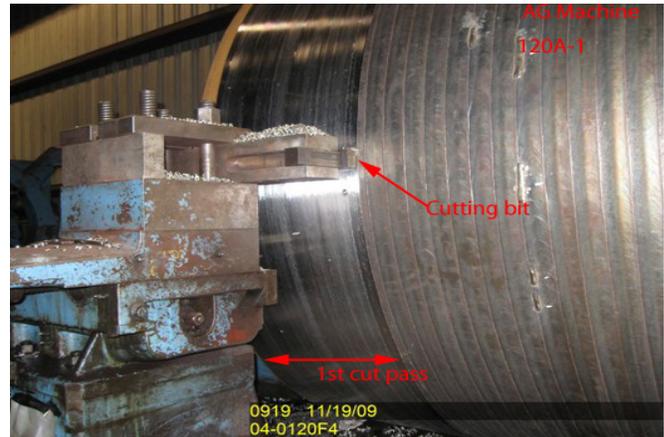
Material, Equipment, and Labor Tracking

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project.

The QA Inspector observed at Oregon Iron Works: 2 OIW production personnel and 2 QC Inspectors.

The QA Inspector observed at AG Machine shop: 1 machinist and 1 supervisor.

The QA Inspector noted that no work was performed at OIW Vancouver paint shop.



Summary of Conversations:

QA Inspector spoke with Lead QA Inspector Joe Adame and Mr. Adame had explained that arc strikes were noticeably present on the internal ring stiffener (a124-11), on fuse assembly 120A-2. Mr. Adame explained that the arc strikes were probably caused by the welder not being able to achieve a sufficient ground through the zinc primer coat, during the TIG weld repairs, which were previously performed by OIW, at AG Machine shop, on the exterior stainless steel overlay. Mr. Adame explained that an e-mail was sent out, with pictures and OIW production/QC was notified of the arc strikes and that corrective action should be taken in the future, to avoid the arc striking problem. Mr. Adame also stated that the arc strikes will need base metal repairs/repainting and also the areas where the internal chucks had been present, during the machining process. QA Inspector took photographs of the above mentioned arc strikes, as shown 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.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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