

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-010017**Date Inspected:** 05-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:

Hinge-K Pipe Beam Assembly 102A-3: 11/5/09

a111-3 Forging to a110-3 Base Plate

QA Inspector noticed that the partial joint penetration and fillet welds were previously completed, on the HPS 485W stiffeners and OIW production personell were in-process of performing weld clean-up, on the above mentioned stiffeners. QA Inspector spoke with QC Inspector Jose Salazar and Mr. Salazar explained that OIW welders # O6, Mr. Tim O'Brian and #T23, Mr. John Tellone were blending the weld start/stops, removing weld spatter and grinding all areas, which were previously marked by OIW QC Inspectors. Mr. Salazar also explained that the completed fillet and PJP welds on above mentioned stiffeners, which were found to be visually acceptable per AWS D1.5 and contract requirements, will then be 100% magnetic particle tested by qualified OIW QC Inspectors. QA Inspector noted that the in-process visual testing by OIW QC Inspector Jose Salazar, appeared to be in compliance with AWS D1.5 and contract requirements.

AG Machining

Hinge-K Pipe Beam Fuse Assembly 120A-2: 11/5/09

a124-3 Half Fuse to a124-11 Half Fuse

QA inspector arrived at AG, on this date and spoke AG Machinist and AG explained that the third and final

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machining cut pass was in-process, on this fuse assembly 120A-2. AG explained that the final cut pass was set to approximately 1/32" (.6mm deep), to achieve a final outside diameter of 75.630" (1921mm), per contract requirements of 1920mm (+- 1mm) and was approximately 16" (406mm) into the cut. AG explained that approximately 8-10 visual inclusions were present, at this time, with depths of approximately 1mm and lengths of approximately 10-300mm. AG explained to QA Inspector that after the final machining cut pass was approximately 50% complete, AG will notify OIW PM Bill Pender of the results and OIW will decide how to proceed, with the remaining machining that is left. See attached pictures below.

Note: QA Inspector noted that after the above mentioned cut pass is complete, the final finish profile of .8µm will then be achieved, utilizing a "superfinisher" (a block of honing stones, for finishing).

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 QA Inspector observed at AG Machine shop: 1 Machinist and 1 Supervisor.

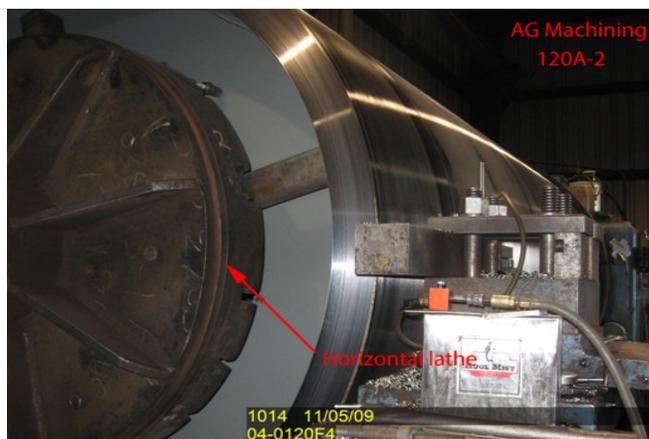
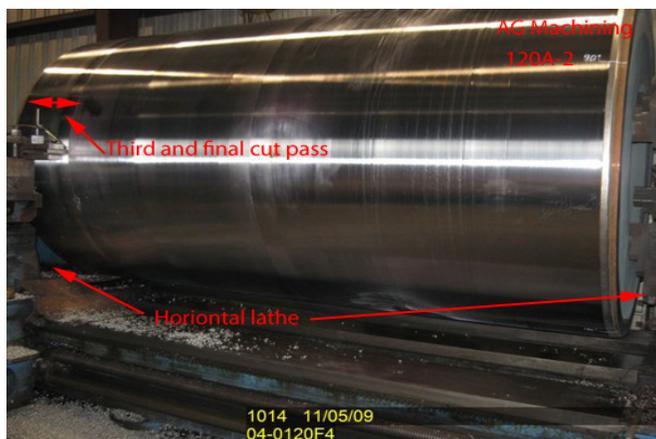
The QA Inspector noted that the following were present OIW Vancouver paint shop: 1 Painter and 1 Supervisor.

Summary of Conversations:

On this date QA Lead Inspector Joe Adame informed QA Inspector Sean Vance of the conversation below and asked the QA to document it in his daily report:

QA Lead Inspector Joe Adame spoke to OIW PM Bill Pender regarding OIW's proposed resolution to NCR 11. The NCR was issued on 3/19/09 and was for the decrease in electrode by more than one standard size. The electrode was used for tacking and buttering on Ring stiffeners. OIW's response was that the welds were tested and was asking CT to accept them. SMR Mohammad Fatemi and QA Reps Adame & Mertz had on various occasions mentioned to OIW that Caltrans would like OIW to prove that the heat input wasn't exceeded when using the WPS based on the QC reports.

Mr. Pender informed QA Inspector Adame that he would like a response from Caltrans for NCR 11. Mr. Pender felt that OIW's proposed resolution is sufficient and if Caltrans is requesting additional info that Caltrans should respond to the resolution and request it. QA Inspector Adame did explain that he and QA Lead Robert Mertz were trying to help them revise their resolution to avoid being formally rejected. The Project Manager stated that he would not have an issue with a formal rejection but would like an explanation and specific info from Caltrans on what they should provide to close the issue.



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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
