

**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-010083**Date Inspected:** 10-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: 11/10/09

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 continuing to grind 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. See attached picture below.

Hinge-K Pipe Beam Assembly 102A-4: 11/10/09

a111-4 Forging to a110-4 Base Plate

QA Inspector noted that the partial penetration weld joint (AWS D1.5 TC-P4-S), piece mark a109 to a106, designated as weld joint #W2-19, had been previously completed on the prior swing shift and was currently

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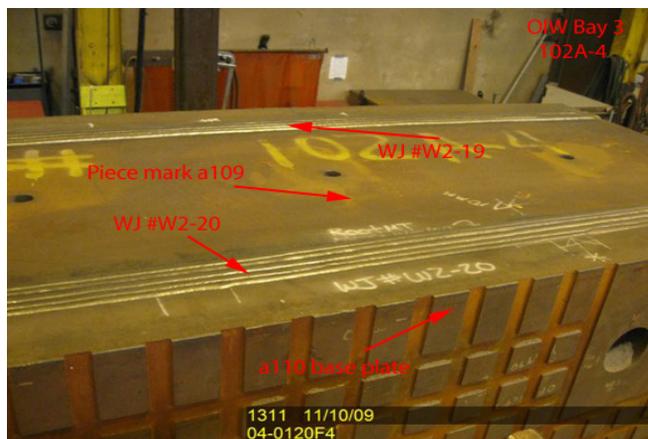
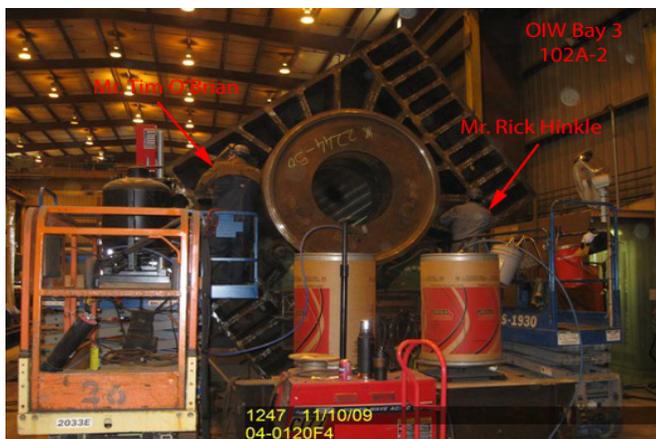
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cooling to ambient temperature. QA Inspector spoke with QC Inspector Jose Salazar and Mr. Salazar explained that 100% magnetic particle testing will be performed, on the above mentioned weld joint after a minimum 48 hrs., ( per AWS D1.5, "Cooling Times Prior to Inspection" ).

Note: QA Inspector noted that the four partial joint penetration welds, designated as weld joints # W2-19, W2-20, W2-23 and W2-24 were now complete. QA Inspector noted that 100% visual and magnetic particle testing was previously performed on the above mentioned weld joints # W2-23 and W2-24, by qualified OIW QC Inspectors and no rejectable indications were found. QA Inspector noted that 100% visual testing was performed by qualified OIW QC Inspectors, on the above mentioned weld joints # W2-19 and W2-20 and no rejectable indications were found. QA Inspector noted that the 100% magnetic particle testing was pending, per the cooling time period. QA Inspector noted that once the magnetic particle testing is performed and acceptable, OIW will then remove this assembly 102A-4 from the welding positioner and QA Inspector will then perform visual testing and approximately 10% magnetic particle testing, to confirm results provided by OIW QC Inspectors. QA Inspector noted that the non-destructive testing, performed by OIW Inspectors, appears to be in compliance with AWS D1.5 and applicable contract requirements/procedures.

### 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 noted that the following were present 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:

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.

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**Inspected By:** Vance, Sean

Quality Assurance Inspector

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**Reviewed By:** Adame,Joe

QA Reviewer