

**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-007472**Date Inspected:** 18-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1600**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, Oregon

<b>CWI Name:</b>	Mike Gregson, Jose Salazar	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	Hinge K Pipe Beams	

**Summary of Items Observed:**

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Oregon Iron Works, Inc. (OIW) jobsite in Clackamas, Oregon for the purpose of observing fabrication of the Hinge K Pipe Beams.

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Oregon Iron Works, Inc. (OIW) jobsite in Clackamas, Oregon for the purpose of observing fabrication of the Hinge K Pipe Beams.

**OIW Fabrication Shop-Bay 1:**

QA Inspector Brannon observed no production activity on Hinge K Pipe Beam sub assemblies noted below for the duration of the shift.

Hinge-K Pipe Beam Sub Assembly, cap plates MK#109.

**OIW Fabrication Shop-Bay 3 (sub-assembly):**

QA Observations: General On-Going Fabrication- Caltrans QA observed OIW continuing with the fabrication of the hinge k pipe beams, for the SAS Superstructure. The general fabrications of said items consist of fitting, tack welding and welding.

In-Process Welding - Caltrans QA Inspector observed OIW joining by partial joint penetration (PJP) and fillet welding radial stiffener plates to vertical stiffeners and forging to manufacture pipe beam base assembly MK#102A-4 using a SAW process.

**OIW Fabrication Shop-Bay 3 (sub-assembly):**

QA Inspector Brannon observed no production activity on Hinge K Pipe Beam sub assemblies noted below for the

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duration of the shift.

Hinge-K Pipe Beam Sub Assembly, Half fuse section MK#a124-15.

Hinge-K Pipe Beam Sub Assembly, Half fuse section MK#a124-5.

Hinge-K Pipe Beam Sub Assembly, Half fuse section MK#a124-8.

Note: QA Inspector Brannon also, observed pending CWR repair for MK#102A-1 weld joint W2-13.

OIW Fabrication Shop-Bay 6 (stainless overlay):

QA Observations: General On-Going Fabrication- Caltrans QA observed OIW continuing with the fabrication of the hinge k pipe beams, for the SAS Superstructure. The general fabrications of said items consist of hinge K pipe beam fuse stainless overlay.

In-Process Welding - Caltrans QA Inspector observed OIW welding stainless overlay using Soudotape 309L for the 1st layer and for the 2nd and 3rd layer using Soudotape 316L. The overlay will be 60 mm wide by approximately 5 mm thick as it wraps around the pipe beam fuse mark #120A and will continue in this pattern for the length of pipe beam fuse. Currently OIW is performing the overlay process on MK120A-4 the 1st layer.

OIW Fabrication Shop-Bay 6 (sub-assembly):

QA Inspector Brannon observed no production activity on Hinge K Pipe Beam sub assemblies noted below for the duration of this shift.

Hinge-K Pipe Beam Sub Assembly, MK#120A-1 – MK#a124-6 half fuse to MK#a124-7 half fuse.

OIW Storage Yard

Hinge-K Pipe Beam Base Assembly, MK#102A-2 - MK#a111-2 forging to MK#a110-2 base plate idle.

Hinge-K Pipe Beam Base Assembly, MK#102A-3 - MK#a111-3 forging to MK#a110-3 base plate idle.

Hinge-K Pipe Beam Sub Assembly, MK#120A-3 – MK#a124-10 half fuse to MK#a124-12 half fuse with stainless steel overlay.

Hinge-K Pipe Beam Sub Assembly, MK#120A-2 – MK#a124-3 half fuse to MK#a124-11 half fuse.

Note: QA Inspector Brannon also, observed pending repairs for MK#102A-2 weld joint W2-13 and MK#102A-3 weld joint W2-13 both have pending 1st time UT repairs.

A G Machine Works

Hinge-K Pipe Beam Fuse Assembly 120A-5, 120A-6:

(a124-14 Half Fuse to a124-2 Half Fuse) & (a124-1 Half Fuse to a124-9 Half Fuse)

QA Inspector arrived at A G Machine Works, on this date and spoke with Mr. Gary Schmale with A G Machine Works. Mr. Schmale explained that fuse assembly 120A-5 rough machining had been previously completed and was in-process of being transferred back to OIW fabrication. QA Inspector witnessed the fuse assembly 120A-5 being loaded onto a trailer, in preparation for transfer back to OIW and fuse assembly 120A-6 being set in the horizontal lathe, in preparation for rough machining. Mr. Schmale explained that roundness measurements would be taken by A&G machinist and OIW machinist would be arriving later in the afternoon, to verify measurements and potentially release this fuse assembly 120A-6 to A&G, to begin rough machining, on this date. QA Inspector noted that once this assembly 120A-5 arrives at OIW, 100% magnetic particle testing on the exterior rough machined surface and 100% ultrasonic weld inspection on the CJP circumferential weld splice, will be performed by OIW qualified QC personnel.

Caltrans Status and Production Tracking:

QA Inspector Brannon also updated Caltrans status and production tracking logs for tracking of check samples,

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procedure qualification record (PQR), critical weld repairs (CWR), non-critical welding repairs (WRR), completed and in process welding, QC/QA non-destructive testing.

**Summary of Conversations:**

As noted within this reprot.

**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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<b>Inspected By:</b>	Brannon, Sherri	Quality Assurance Inspector
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<b>Reviewed By:</b>	Adame, Joe	QA Reviewer
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