

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT**

**Resident Engineer:** Casey, William  
**Address:** 333 Burma Road  
**City:** Oakland, CA 94607

**Report No:** WIR-027587  
**Date Inspected:** 30-Apr-2012

**Project Name:** SAS Superstructure  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV  
**Contractor:** Lubrite Industries

**OSM Arrival Time:** 700  
**OSM Departure Time:** 1530  
**Location:** Meadville PA

<b>CWI Name:</b>	Brad McWright	<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	

**Bridge No:** 34-0006**Component:** Spherical Bushing Ring Bearing Hinge K**Summary of Items Observed:**

This Quality Assurance Inspector (QAI) arrived at Lubrite Industries (LI), Meadville PA, as requested to monitor welding Qualification of New Stud gun for attachment of Anchor Studs to Anchor Plates of Bearing Housings. Upon arrival this QAI met with Third Party QC Reno Davis KTA (TPQC), and Brad McWright (LIQC). Test piece of Anchor Plate was set up and locations marked for attachment of anchor studs to plate. The plate being used is a drop from the actual anchor plate being used on the job, ASTM A709 Grade 50 Heat 0502434.. Anchor studs are 1" x 8 1/4" ASTM A108/A29 Grade 1015 Heat 5093721.

Welder then proceeded to weld (10) Anchor studs to Plate with no failure of new gun. Welds were inspected by TPQC and witnessed by this QAI. Visual inspection revealed no surface defects and studs were released for bend test as required for qualification of stud gun and WPS.

Studs were then bent 90 degrees with no failures during the test. Full fusion was noted at the base of each stud after bend test.

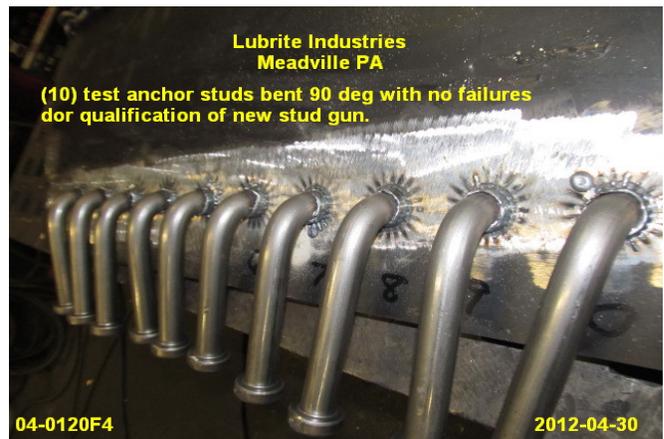
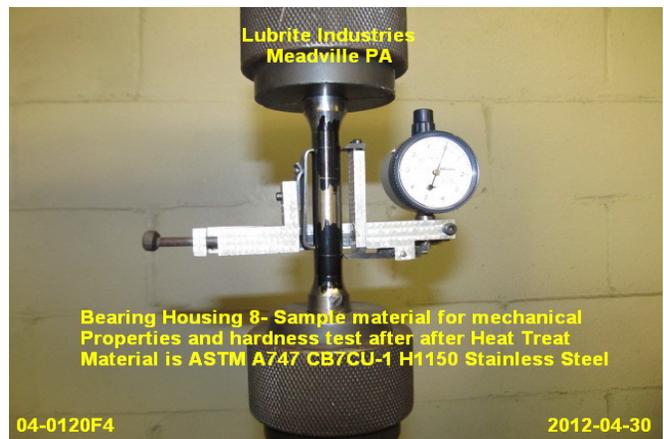
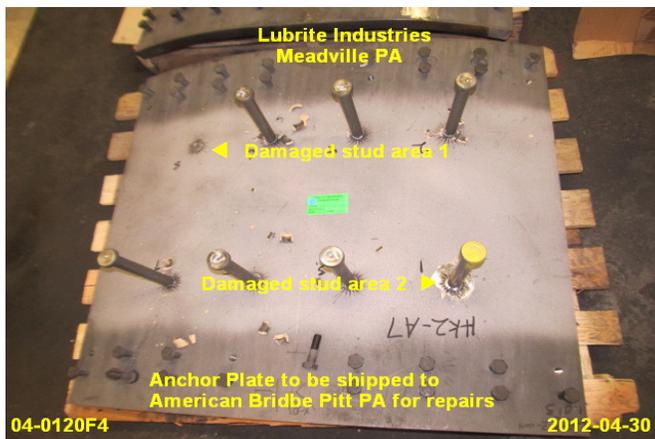
The damaged Anchor plate from the 4/25/12 failed welding of anchor studs to plate was boxed, Green tagged with blue dot and shipped to American Bridge in Pittsburg PA for repairs. This plate had (2) bad welds at base of anchor stud to plate.

Also while at LI this QAI witnessed the Mechanical Properties and hardness test on the final housing samples sent for heat treat. This sample is for Housing #8. The material is Stainless Steel ASTM A747 CB7CU-1 H1150. All tests performed per ASTM A747. All results found acceptable and recorded on Material Test Report furnished to this QAI by LIQC.

The items observed appear in general conformance with the contract documents and approved drawings.

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

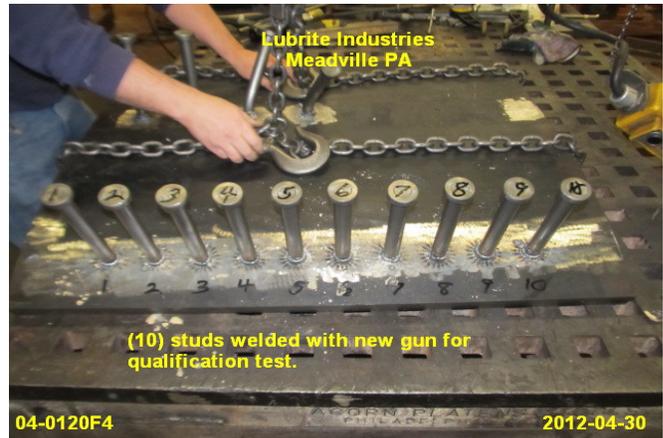


---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---



## Summary of Conversations:

Basic conversation, fundamental to completion of the tasks at hand, occurred between this QAI and LI QC Personnel.

## 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 Aaron Prchlik (510)-610-9822, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Sullivan, Kevin	Quality Assurance Inspector
<b>Reviewed By:</b>	Foerder, Mike	QA Reviewer

---