

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 #: 73.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008146**Date Inspected:** 24-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1800**Contractor:** HoChang, Korea**Location:** Unyang, Korea

CWI Name:	Sang Ho Kwak		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Pier E2 bearing and Shear key**Summary of Items Observed:**

The following report is based on METS observations at HoChang Machinery Industries (HCMI). Current work: Casting, forging and machining.

On this date the Caltrans Quality Assurance (QA) inspector, Dong J. Shin arrived at HoChang Machinery Industries (HCMI) located at Unyang, Korea and DooSan Heavy Industries (DHIC) located at Changwon, Korea. The Purpose of this trip was to observe quality control during fabrication and process of following items.

Forging

1. Bearing Bottom Housing (B1-07/F07302-010): Transfer to KPC for final machining.
2. Bearing Bottom Housing (B2-07/F07302-020): Start final machining.
3. Bearing Bottom Housing (B3-07/F07302-030): Transfer to KPC for final machining.
4. Bearing Bottom Housing (B4-07/F07302-040): Transfer to KPC for final machining.
5. Spherical Ring (S1-07/F07302-050): Completed pre machining for SS overlay welding.
6. Spherical Ring (S2-07/F07302-060): Completed pre machining for SS overlay welding.
7. Spherical Ring (S3-07/F07302-070): Completed pre machining for SS overlay welding.
8. Spherical Ring (S4-07/F07302-080): Completed pre machining for SS overlay welding.
9. Solid Shaft (B1-02/F07302-090): Completed pre machining for SS overlay welding.
10. Solid Shaft (B2-02/F07302-100): Completed pre machining for SS overlay welding.
11. Solid Shaft (B3-02/F07302-110): Completed pre machining for SS overlay welding.
12. Solid Shaft (B4-02/F07302-120): Completed pre machining for SS overlay welding.

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- F number is DooSan Production Number.
- B number is drawing Number.

Casting

On this date the Caltrans Quality Assurance (QA) inspector, Dong J. Shin arrived at HoChang Machinery Industries (HCMI) located at Unyang, Korea and DooSan Heavy Industries(DHIC) located at Changwon, Korea. The Purpose of this trip was to observe quality control during fabrication and process of following items.

DHIC NDT technician Mr. KS. Lee (UT) and Mr. SD. Lee performed MT and UT on B1-06,B2-06 (Bearing Top Housings), S1-03 (Shear Key Housing) and S4-01 (Stub). QA inspector checked following items prior to testing:
MT: lifting power, pie gauge magnetic field strength, and calibration date.

UT: Calibration date and DAC Curve, transducer size and frequency.

Transducers Used: Straight Beam: Dia, 24mm, 2MHz, Angle Beam: 20 x 22mm, 2MHz, 45°, Dual element straight beam: 6 x 20mm, 4MHz and Miniature angle: 8 x 9mm, 2MHz, 45°.

1. Bearing Top Housing (B1-06, C07039-010): Completed PWHT.
2. Bearing Top Housing (B2-06, C07039-020): Completed final NDT.
3. Bearing Top Housing (B3-06, C07039-030): Transfer to HMIC for final machining.
4. Bearing Top Housing (B4-06, C07039-040): Transfer to HMIC for final machining.
5. Bearing Hold Down Assembly (B1-01-1, C07039-050): Continue final machining.
6. Bearing Hold Down Assembly (B1-01-2, C07039-060): Continue final machining.
7. Bearing Hold Down Assembly (B2-01-1, C07039-070): Continue final machining.
8. Bearing Hold Down Assembly (B2-01-2, C07039-080): Continue final machining.
9. Bearing Hold Down Assembly (B3-01-1, C07039-170): Continue final machining.
10. Bearing Hold Down Assembly (B3-01-2, C07039-180): Continue final machining.
11. Bearing Hold Down Assembly (B4-01-1, C07039-190): Continue final machining.
12. Bearing Hold Down Assembly (B4-01-2, C07039-200): Continue final machining.
13. Shear Key Stub (S1-01, C07039-090): Continue final machining.
14. Shear Key Stub (S2-01, C07039-100): Transfer to KPC for final machining.
15. Shear Key Stub (S3-01, C07039-110): Transfer to KPC for final machining.
16. Shear Key Stub (S4-01, C07039-120): Completed final NDT.
17. Shear key Housing (S1-03, C07039-130): Completed final NDT.
18. Shear key Housing (S2-03, C07039-140): Transfer to HMIC for final machining.
19. Shear key Housing (S3-03, C07039-150): Completed PWHT.
20. Shear key Housing (S4-03, C07039-160): Completed PWHT.

* S and B number is drawing number.

* C number is DSHI ID number.

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Summary of Conversations:

*Discuss with Mr. S. H. Kwak regarding general project schedule.

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 Nina Choy, (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Shin,DJ

Quality Assurance Inspector

Reviewed By: Lanz,Joe

QA Reviewer