

**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 #: 04-0120F4  
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9  
 File #: 69.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

**Location:** Changxing Island, Shanghai, P.R. China

**Report No:** NCR-000257

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 16-Apr-2009

**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

**NCR #:** ZPMC-0231

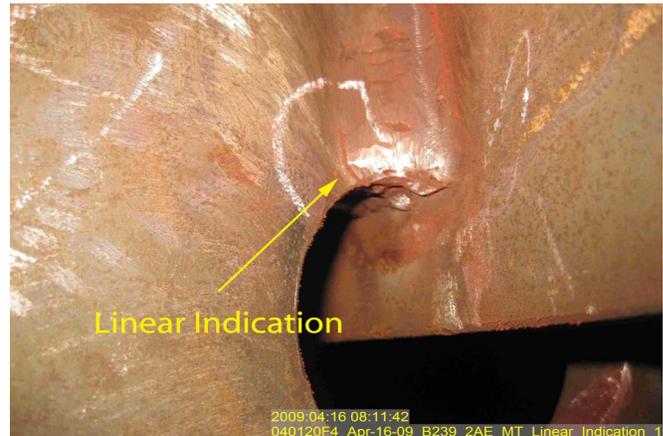
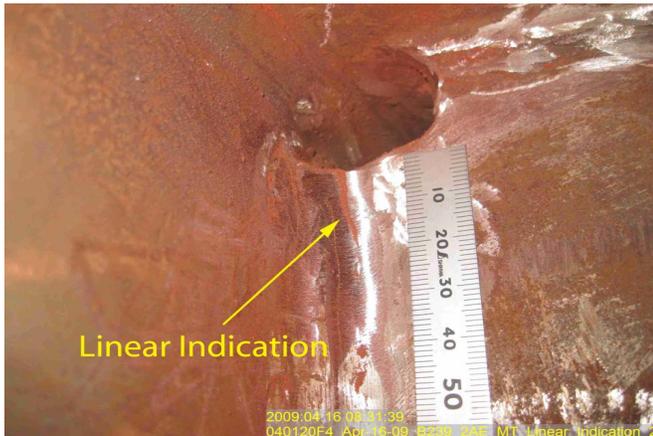
### Type of problem:

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Segment 2AE
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Missed MT Indications by QC

### Description of Non-Conformance:

During random verification Magnetic Particle Testing (MT) of open rib deck stiffener to the corner assembly floor beam web plate (weld numbers SSD56-PP14.5-141,137, SSD17-PP15-142 and CSD10-PP14.5-073), Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) longitudinal linear indications from 10 to 20mm in length. These linear indications were not found when the Contractor performed 25% MT inspections.



### Applicable reference:

AWS D1.5 (2002) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.”

**Who discovered the problem:** Rodney Patterson

**Name of individual from Contractor notified:** Peter Shaw

**Time and method of notification:** 2009/04/16, 10:30, Verbal

---

---

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

---

---

**Name of Caltrans Engineer notified:** Stanley Ku

**Time and method of notification:** 2009/04/16, 12:00, Verbal

**QC Inspector's Name:** Wang Lu

**Was QC Inspector aware of the problem:** Yes No

**Contractor's proposal to correct the problem:**

**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 Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Tsang, Eric	SMR
----------------------	-------------	-----

---

<b>Reviewed By:</b>	Wahbeh, Mazen	SMR
---------------------	---------------	-----

---



**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
Tel: 021-56856666 ext 207061 Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 30-Apr-2009

**Contract No:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Document No:** 05.03.06-000223

**Subject:** NCR No. ZPMC-0231

**Reference Description:** Missed MT Indications by QC

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG **Lift:**

### Remarks:

During random verification Magnetic Particle Testing (MT) of open rib deck stiffener to the corner assembly floor beam web plate (weld numbers SSD56-PP14.5-141,137, SSD17-PP15-142 and CSD10-PP14.5-073), Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) longitudinal linear indications from 10 to 20mm in length. These linear indications were not found when the Contractor performed 25% MT inspections.

Please see the attached NCR report #ZPMC-231 for more details.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences.

**Transmitted by:** Ching Chao

**Attachments:** ZPMC-0231

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, Doug Wright, Ching Chao

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

**To:** CALTRANS - SAS Superstructure  
333 Burma Road  
Oakland CA 94607

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000223

**Subject:** NCR No. ZPMC-0231

**Dated:** 20-May-2009

**Contract No.:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000227 Rev: 00

---

**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has generated an internal NCR for this nonconformance, repaired and re-inspected the welds as required. ZPMC has generated an internal NCR for this nonconformance, repaired and re-inspected the welds as required. Attached is documentation of work performed regarding this NCR. ZPMC requests this NCR be closed

**Submitted by:**

**Attachment(s):** ABF-NPR-000227R00

---

**Caltrans' comments:**

**Status:** REJ

**Date:** 27-May-2009

The proposed resolution is not acceptable. There is no attached documentation of the work performed as stated in the NPR.

Provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences of the recurring issues regarding magnetic particle testing. Also, provide documentation of the weld repairs that were performed and that the repairs were acceptable. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0231 at that time.

**Submitted by:** Wright, Doug

**Date:** 27-May-2009

**Attachment(s):**

## NCR PROPOSED RESOLUTION

**To:** CALTRANS - SAS Superstructure  
333 Burma Road  
Oakland CA 94607

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000223

**Subject:** NCR No. ZPMC-0231

**Dated:** 08-Jun-2009

**Contract No.:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000227 Rev: 01

---

**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has included the documentation required for closure of this NCR.

ZPMC has included the documentation required for closure of this NCR.

**Submitted by:**

**Attachment(s):** ABF-NPR-000227R01;

---

**Caltrans' comments:**

**Status:** CLO

**Date:** 24-Jun-2009

The proposed resolution is acceptable. The welds in question have been accepted by VT and MT as shown in the attached documents. Also, steps taken by the Quality Control Manager regarding MT testing issues were documented in NPR-245. The Department concurs that Non-Conformance ZPMC-0231 is closed.

**Submitted by:** Wright, Doug

**Date:** 24-Jun-2009

**Attachment(s):**



# Visual Weld Inspection Report

## 焊缝目视检查报告

ZPMC-0231

final VT/MT Reports

B-VT 22927

周数 76#  
日期 2009.4.14

OBG PlatePanelSplice

Caltrans Contract No. 加州合同编号  
04-0120F4

Project No.: San Francisco Oakland I  
美国海湾大桥

Project No.: ZP06-787  
项目编号:

Quality Assurance Manager ~Approval  
质量控制经理:

*Le Telo*

Weld No. 缝编号	Welder I.D.# 焊工识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Overlap 焊瘤	Crater 弧坑	Arc strike 电弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒收	Repair 返修	Accept or Reject after repair 返修后接受或拒收
SSD17-PP15-007	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-008	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-011	055564	4F	THJ506Fe-1(Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-012	055564	4F	THJ506Fe-1(Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-136	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-137	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-138	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-139	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-140	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-141	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-142	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-143	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-144	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-145	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-146	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD17-PP15-147	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA

After root weld

After cover pass

After CWR or WRR No. :  
 After HSR No. :  
 Others

"√" is no defects. "X" is defects. "NA" is not applicable.



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-9554

DATE日期 2009.04.19

PAGE OF页码 9/9

Revision No: 0

PROJECT NO.

工程编号: ZP06-787

CONTRACTOR:

用户: CALTRANS

DRAWING NO.

图号: SSD56A  
OBG 2AE PLATE SANE SPLOCE

CALTRANS CONTRACT NO.:

加州工程编号 04-0120F4

REFERENCING CODE

参考规范编码

AWS D1.5-2002

ACCEPTANCE STANDARD

接受标准

AWS D1.5-2002

PROCEDURE NO.

程序编号

ZPQC-MT-01

CALIBRATION DUE DATE

仪器校正有效期

Dec. 28<sup>ST</sup>, 2009

EQUIPMENT 设备

MT YOKE

MANUFACTURER 制造商

PARKER

MODEL NO. 样式编号

B310S

SERIAL NO. 连续编号

5395 5617 5620

MAGNETIZING METHOD

磁化方法

Continuous magnetic yoke

磁轭式连续法

CURRENT

电流

AC

PARTICLE TYPE

磁粉类型

Dry magnet powder

干磁粉

YOKE SPACING

磁轭间距

70~150mm

MATERIAL TO BE

EXAMINED

检测材料

WELDING 焊接件

CASTING 铸件

FORGING 锻造

Material & thickness

母材, 厚度

A709M-345T2-X

8/12/14/16/20 mm

WELDING PROCESS

焊接方法

FCAW

TYPE OF JOINT

焊缝类型

T-JOINT

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
SSD56A-PP14.5-141						*
SSD56A-PP14.5-142						*

\* SSD56A-PP14.5-003, SSD56A-PP14.5-004, SSD56A-PP14.5-124, SSD56A-PP14.5-125, SSD56A-PP14.5-133, SSD56A-PP14.5-134, SSD56A-PP14.5-135, SSD56A-PP14.5-136, SSD56A-PP14.5-137, SSD56A-PP14.5-138, SSD56A-PP14.5-139 were MT inspection and ACC, which is the result of required 25% MT.  
\* SSD56A-PP14.5-003, SSD56A-PP14.5-004, SSD56A-PP14.5-124, SSD56A-PP14.5-125, SSD56A-PP14.5-133, SSD56A-PP14.5-134, SSD56A-PP14.5-135, SSD56A-PP14.5-136, SSD56A-PP14.5-137, SSD56A-PP14.5-138, SSD56A-PP14.5-139 焊缝经MT抽检合格, 且累积检测长度已经达到了此批要求的25%检测长度。

BLANK

EXAMINED BY主探

*San Gong Chang*  
LEVEL - II SIGN 签名 / DATE日期

质量经理 / QCM

*La Tals*  
签字 SIGN / 日期 DATE

REVIEWED BY审核

*BOJINMI*  
LEVEL-II SIGN / DATE日期

用户CUSTOMER

签字 SIGN / 日期 DATE



**Visual Weld Inspection Report**  
**焊缝目视检查报告**

周数 76#  
 日期 2009.4.14

B-VT 22935 -1/2

Caltrans Contract No. 加州合同编号 04-0120F4

Project No.: 项目名称 San Francisco Oakland Bay Bridge  
 美国海湾大桥

Project No.: 项目编号: ZP06-787

Girder/梁: Tower/塔:  
 Quality Control Representative: 质检代表:  
 CWT: 检验员:  
 Quality Assurance Manager ~Approval 质量控制经理:

OBG Plate Panel Splice  
 6/1/09 8072 Jx1  
 [Signature]

Weld No. 焊缝编号	Welder I.D.# 焊工识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Over lap 焊瘤	Crater 弧坑	Arc strike 电弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒收	Repair 返修	Accept or Reject after repair 返修后接受或拒收
CSD10-PP14.5-065	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-066	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-067	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-068	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-069	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-070	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-071	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-072	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-073	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-074	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-075	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-076	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-089	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-090	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-093	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-094	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-107	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-108	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-109	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-110	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA
CSD10-PP14.5-111	048047	3F	THJ506Fe-1 (Φ4.0)	√	√	√	√	√	√	√	ACC	NA	NA

"√" is no defects. "X" is defects. "NA" is not applicable.

REPORT OF MAGNETIC PARTICLE EXAMINATION



磁粉检测报告

REPORT NO. 报告编号 B787-MT-9542

DATE 日期 2009.04.19

PAGE OF 页码 3/4

Revision No: 0

PROJECT NO. 工程编号: ZP06-787

CONTRACTOR: 用户: CALTRANS

DRAWING NO. CSD10E

CALTRANS CONTRACT NO.: 04-0120F4

图号: OBG ZAE CORNER ASSEMBLY

REFERENCE CODE 接受标准

AWSD1.5-2002

EQUIPMENT 设备

MANUFACTURER 制造商

MT YOKE

PARKER

MAGNETIZING METHOD

Continuous magnetic yoke

PARTICLE TYPE

Dry magnet powder

MATERIAL TO BE EXAMINED

WELDING 焊接件

EXAMINED

CASTING 铸件

WELDING PROCESS

SMAW

TYPE OF JOINT

T-JOINT

WELD I.D.

DISCONTINUITY 不连续性

INDICATION 指示

TYPE 类型

REMARKS 备注

ACCEPT 接受

REJECT 拒收

LENGTH 长度

100%MT

ACC.

EXAMINED BY 主操

REVIEWED BY 审核

LEVEL-II SIGN 签名 / DATE 日期 09.4.19

LEVEL-II SIGN 签名 / DATE 日期 2009.4.19

质量经理 / QCM

用户 CUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)



Visual Weld Inspection Report

焊缝目视检查报告

周数 76#  
日期 2009.4.14

B-VT 22904 -1/2

Caltrans Contract No.	04-0120F4	Quality Control Representative:	OBG Plate Panel Splice
加州合同编号		Girder/梁: Tower/塔:	
Project No.:	San Francisco Oakland Bay Bridge	质检代表: CWT:	
项目名称	美国海湾大桥	检验员:	
Project No.:	ZP06-787	Quality Assurance Manager - Approval	
项目编号:		质量控制经理:	

Weld No. 焊编号	Welder 焊工 ID.# 识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Overlap 焊瘤	Crater 弧坑	Arc strike 电弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒 收	Repair 返修	Accept or Reject after repair 返修后接受 或拒收
SSD56-PP14.5-131	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-191	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-195	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-196	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-134	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-135	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-136	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-137	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-138	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-139	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-140	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-141	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-142	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-143	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-144	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-145	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-156	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-157	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-160	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-161	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA
SSD56-PP14.5-177	055564	3F	Supercored 71H(Φ1.4)	√	√	√	√	√	√	√	ACC	NA	NA

"√" is no defects. "X" is defects. "NA" is not applicable.

REPORT OF MAGNETIC PARTICLE EXAMINATION



磁粉检测报告

REPORT NO. 报告编号 B787-MT-9553

DATE 日期 2009.04.19

PAGE OF 页码 11/12

Revision No: 0

PROJECT NO.

ZP06-787

CONTRACTOR:

CALTRANS

DRAWING NO.

SSD56

CALTRANS CONTRACT NO.:

04-0120F4

图号:

OBG ZAE PLATE SANE SPLICE

加州工程编号

REFERENCING CODE

ACCEPTANCE STANDARD

PROCEDURE NO.

ZPQC-MT-01

参考规范编号

接受标准

CALIBRATION DUE DATE

Dec. 28<sup>th</sup>, 2009

AWS D1.5-2002

MANUFACTURER 制造商

MODEL NO. 样式编号

MT YOKE

PARKER

SERIAL NO. 连续编号

5395 5617 5620

MAGNETIZING METHOD

Continuous magnetic yoke

CURRENT

AC

PARTICLE TYPE

Dry magnet powder

YOKE SPACING

70~150mm

MATERIAL TO BE EXAMINED

WELDING 焊接件

Material & thickness

A709M-345T2-X

检测材料

FORGING 锻造

母材, 厚度

8/12/14/16/18/20/22/30mm

WELDING PROCESS

FCAW

TYPE OF JOINT

T-JOINT

焊接方法

DISCONTINUITY 不连续性

WELD I.D.

INDICATION

TYPE

LENGTH IN mm

ACCEPT

REJECT

REMARKS

EXAMINED BY 主操

LEVEL - II SIGN 签名 / DATE 日期

for slip

LEVEL - II SIGN / DATE 日期

009.04.19

质量经理 / QCM

用户 CUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-9553      DATE日期 2009.04.19      PAGE OF页码 12/12      Revision No: 0

PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS	
DRAWING NO. 图号: SSD56 OBG 2AE PLATE SANE SPLOCE		CALTRANS CONTRACT NO.: 加州工程编号: 04-0120F4	
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 <sup>ST</sup> , 2009
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材, 厚度	A709M-345T2-X 8/12/14/16/18/20/22/30mm
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT

WELD I.D. 焊缝编号	DISCONTINUITY 不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
SSD56-PP14.5-179				ACC.		100%MT
SSD56-PP14.5-180				ACC.		100%MT
SSD56-PP14.5-181				ACC.		100%MT
SSD56-PP14.5-182				ACC.		100%MT
SSD56-PP14.5-183				ACC.		100%MT
SSD56-PP14.5-184				ACC.		100%MT
SSD56-PP14.5-185				ACC.		100%MT
SSD56-PP14.5-186				ACC.		100%MT

BLANK


EXAMINED BY 主探 <u>San Gong Chang</u> LEVEL-II SIGN 签名 / DATE日期 <u>4.04.19</u>	REVIEWED BY 审核 <u>BOTJMMI</u> LEVEL-II SIGN / DATE日期 <u>2009.4.19</u>
质量经理 / QCM <u>L. J. ...</u> 签字 SIGN / 日期 DATE <u>2009.4.19</u>	用户 CUSTOMER 签字 SIGN / 日期 DATE

**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 #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000261**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0231**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	

**Date the Non-Conformance Report was written:** 16-Apr-2009**Description of Non-Conformance:**

During random verification Magnetic Particle Testing (MT) of open rib deck stiffener to the corner assembly floor beam web plate (weld numbers SSD56-PP14.5-141,137, SSD17-PP15-142 and CSD10-PP14.5-073), Caltrans Quality Assurance (QA) Inspector discovered a total of four (4) longitudinal linear indications from 10 to 20mm in length. These linear indications were not found when the Contractor performed 25% MT inspections.

**Contractor's proposal to correct the problem:**

Perform NDT to repair area.

**Corrective action taken:**

Contractor submitted VT and MT reports verifying that the repairs were performed in accordance with Contract specifications.

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?** Yes No**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 Jim Simonis, who represents the Office of Structural Materials for your project.

**Inspected By:** Simonis, Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer