

**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-000329

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

**Date:** 13-Jun-2009

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

**NCR #:** ZPMC-0303

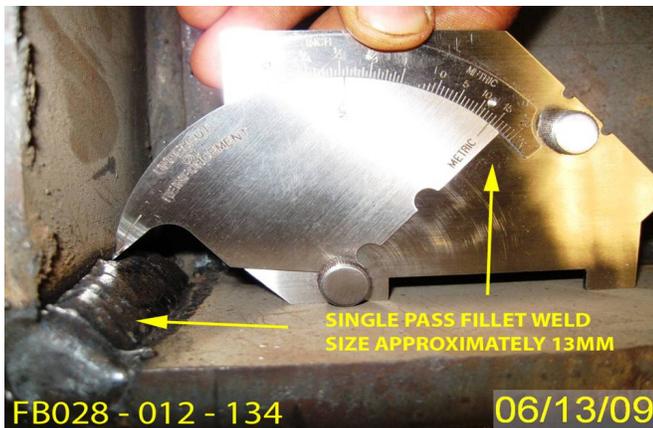
### Type of problem:

<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> Floor Beam FB028-012
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Excessive Fillet Weld Size, FB028-012

### Description of Non-Conformance:

During random in-process visual inspection of Floor Beam FB028-012, Caltrans Quality Assurance (QA) Inspector observed single pass fillet welds that measured approximately 13mm (welds FB028-012-134 & 143). The supporting WPS (WPS-B-T-2133) is only qualified for a maximum single pass of 9mm.



### Applicable reference:

Approved WPS: WPS-B-T-2133

**Who discovered the problem:** Naddi Sandeep Kumar

**Name of individual from Contractor notified:** Luo Gui Lin

**Time and method of notification:** 06/13/09, 1300 hours, Verbal

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

**Time and method of notification:** 06/15/09, 800 hours, Verbal

**QC Inspector's Name:** Yang Qing Feng

**Was QC Inspector aware of the problem:**

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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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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 Skyler Guest, (86) 1500-042-2360, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Guest,Skyler	SMR
<b>Reviewed By:</b>	Wahbeh,Mazen	SMR

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**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:** 22-Jun-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:** 05.03.06-000293

**Subject:** NCR No. ZPMC-0303

**Reference Description:** Excessive Fillet Weld Size, FB028-012

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 in-process visual inspection of Floor Beam FB028-012, Caltrans Quality Assurance (QA) Inspector observed single pass fillet welds that measured approximately 13mm (welds FB028-012-134 & 143). The supporting WPS (WPS-B-T-2133) is only qualified for a maximum single pass of 9mm.  
See attached NCR No. ZPMC-303 for details.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to remedy the material/workmanship issue and to prevent future occurrences.

**Transmitted by:** Ching Chao

**Attachments:** ZPMC-0303

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, 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:** 05.03.06-000293

**Subject:** NCR No. ZPMC-0303

**Dated:** 24-Aug-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000315 **Rev:** 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** A single pass weld of this size is unacceptable. ZPMC will grind this weld out and reweld to the proper size required by the drawings per the approved weld procedure.

A single pass weld of this size is unacceptable. ZPMC will grind this weld out and reweld to the proper size required by the drawings per the approved weld procedure. ZPMC will submit inspection documents at a later date to close this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000315R00

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### Caltrans' comments:

**Status:** AAP

**Date:** 28-Aug-2009

The response is acceptable, but the Non-Conformance is not closed.

Please provide documentation of the weld removal mentioned above and provide the acceptable inspection documents after re-welding. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0303 at that time.

**Submitted by:** Wright, Doug

**Date:** 28-Aug-2009

**Attachment(s):**

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000293

**Subject:** NCR No. ZPMC-0303

**Dated:** 27-Aug-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000315 **Rev:** 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC has attached the repair and inspection documents needed for closure of this NCR. Also ZPMC generated an internal NCR to document corrective and preventive actions.

ZPMC has attached the repair and inspection documents needed for closure of this NCR. Also ZPMC generated an internal NCR to document corrective and preventive actions. ZPMC requests closure of this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000315R01;

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### Caltrans' comments:

**Status:** CLO

**Date:** 28-Aug-2009

The proposed resolution is acceptable. The excessive sized weld passes were ground out, and the welds in question have been accepted by VT and MT as shown in the attached documents. The Department concurs that Non-Conformance ZPMC-0303 is closed.

**Submitted by:** Wright, Doug

**Date:** 28-Aug-2009

**Attachment(s):**



No. B-461

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2009-8-26**

**REGARDING: NCR-000329 (ZPMC-303)**

With this letter of response, ZPMC requests closure for Caltrans NCR-000329 (ZPMC-303). We agree what describe in the non-conformance report, and have instructed the work foreman and our QC that should follow the require of the single weld size in the welding procedure and the wide of the fillet weld can be over the tolerance but can cover the other pass to got the drawing require, otherwise the heat input will be to high and more easy to cause the weld defect especially the delay cracks.

By the way we have repair the weld profile by grind until to the WPS requirement. The process was all witnessed by the caltrans inspector and made the second pass on the cover. We also provide the weld repair report and NDT acceptable report here to support the good quality of the welds.

so base on the above explanation and attached documentations, ZPMC applies to close the caltrans's report NCR-000329 (ZPMC-303).

Please reference attached document for acceptance and closure the NCR-000329 (ZPMC-303).

**ATTACHMENT:**

ZPMC internal NCR

NCR-000329 (ZPMC-303)

The complete VT/MT report

*Zhao Shuangbao*

*2009. 8. 26*



# Nonconformance Report

## 不符合项报告

Project Name: S.F.O.B.B  
项目名称: 美国加州海湾大桥

NCR Number:  
NCR 编号: NCR-B-199  
(NCR-000329)

Item: Excessive Fillet Weld Size  
名称描述: 焊脚超标

Item Number:  
件号: FB028-012

Drawing:  
图号: FB028-012

Location: Bay 3  
位置: 3 车间

Date:  
日期: 2009-06-30

### Description of Nonconformance:

#### 不符合项状态描述:

During random in-process inspection of Floor Beam FB028-012, Caltrans inspector observed single pass fillet welds that measured approximately 13mm (welds FB028-012-134,143). The supporting WPS (WPS-B-T-2133) is only qualified for a maximum single pass of 9 mm.

在对隔板 FB028-012 进行过程中的随机检查中, 加州检验员发现单道焊缝 FB028-012-134,143 的角焊缝实测有 13mm 左右。根据相应 WPS-B-T-2133, 单道焊缝最大尺寸应是 9mm。

参考标准: WPS-B-T-2133

Work By:

Prepared by: Lin Zhu

Reviewed by QCE: Wan Shuangbao

施工方: Shijian gang

准备: 6/30/09

质量工程师批准: Wan Shuangbao

Drawing Error

Material Defect

Fabrication Error

Other

6-30

图纸错误

材料缺陷

制作错误

其他原因

Disposition:  Use as is

Repair

Reject

处理措施: 回用

返修

拒收

### Recommendation:

#### 建议:

Prepared by: \_\_\_\_\_

Approved by QCA: \_\_\_\_\_

准备

质量经理批准

### Reason for Nonconformance:

不符合原因: 由于现场施工人员进行焊接时, 没有详细了解焊脚的尺寸, 所以造成焊脚过大。  
Worker didn't review drawing requirement carefully, caused weld size bigger than drawing requirement.

预防措施: 在构件为加工前, 先了解清楚焊脚的尺寸要求, 才可以进行焊接。  
Understand drawing requirement carefully before fabrication, then welding.

Approved by/批准: Zhang Guiming 07.02

Technical Justification for Use-As-Is/Repair:  Attachment

Non-attachment

回用或返修的技术依据: 参照图纸要求对焊缝进行打磨

Grind the weld to a smooth and shiny finish according to shop drawing.

附件

无附件

Reviewed /批准: Manliyi

7.10/09

Verification:  Acceptable

Unacceptable

确认: 可接受

不可接受

Verified by QCI/质检确认: \_\_\_\_\_

Reviewed by QCA/质检主任审核: \_\_\_\_\_

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:

*Collect*

## NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 22-Jun-2009

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

Dear: Mr. Charles Kanapicki  
Attention: Mr. Thomas Nilsson Project/Fabrication Manager  
Subject: NCR No. ZPMC-0303

Job Name: SAS Superstructure  
Document No: 05.03.06-000293

Reference Description: Excessive Fillet Weld Size, FB028-012

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 in-process visual inspection of Floor Beam FB028-012, Caltrans Quality Assurance (QA) Inspector observed single pass fillet welds that measured approximately 13mm (welds FB028-012-134 & 143). The supporting WPS (WPS-B-T-2133) is only qualified for a maximum single pass of 9mm.

See attached NCR No. ZPMC-303 for details.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to remedy the material/workmanship issue and to prevent future occurrences.

Transmitted by: Ching Chao

Attachments: ZPMC-0303

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, Ching Chao  
File: 05.03.06

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

City: 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-000329

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 13-Jun-2009

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

NCR #: ZPMC-0303

### Type of problem:

Welding  Concrete  Other Welding  Curing  Procedural  Bridge No: 34-0006Joint fit-up  Coating  Other  Component: Floor Beam FB028-012Procedural  Procedural  Description:

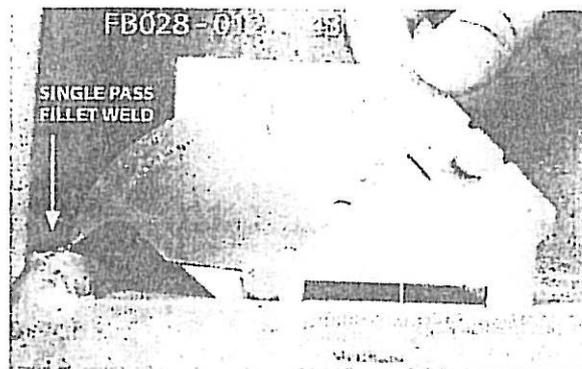
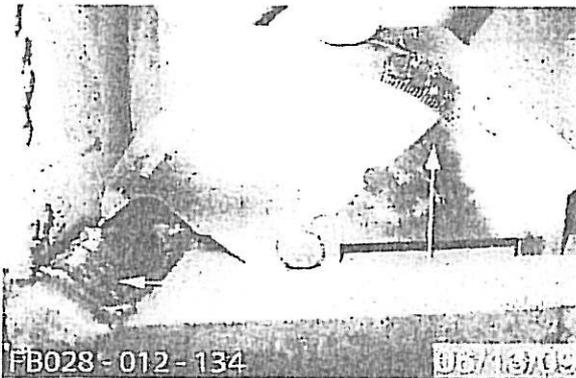
Reference Description: Excessive Fillet Weld Size, FB028-012

### Description of Non-Conformance:

During random in-process visual inspection of Floor Beam FB028-012, Caltrans Quality Assurance (QA)

Inspector observed single pass fillet welds that measured approximately 13mm (welds FB028-012-134 &amp; 143).

The supporting WPS (WPS-B-T-2133) is only qualified for a maximum single pass of 9mm.



梁段号  
未说明

### Applicable reference:

Approved WPS: WPS-B-T-2133

Who discovered the problem: Naddi Sandeep Kumar

Name of individual from Contractor notified: Luo Gui Lin

Time and method of notification: 06/13/09, 1300 hours, Verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 06/15/09, 800 hours, Verbal

QC Inspector's Name: Yang Qing Feng

Was QC Inspector aware of the problem:

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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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 Skyler Guest, (86) 1500-042-2360, who represents the Office of Structural Materials for your project.

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Inspected By:	Guest, Skyler	SMR
Reviewed By:	Wahbeh, Mazen	SMR

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2009-7-4



周数  
日期

2009-7-4

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

Girder/梁: OBG Floor Beam  
Tower/塔: NA

Quality Control Representative:  
质检代表:

W.D. + Lu  
04062001

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

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
FB028-012-082	044790	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-083	044790	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-094	044790	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-095	044790	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-102	044790	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-103	044790	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-147	044790	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-134	066746	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-135	066746	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-142	066746	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-143	066746	3F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-068	044790	2F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
FB028-012-069	044790	2F	supercored71H φ 1.4	✓	✓	✓	✓	✓	✓	✓	ACC	NA	NA
<input checked="" type="checkbox"/> After root weld <input type="checkbox"/> After CWR or WRR No. : <input type="checkbox"/> After cover pass <input type="checkbox"/> After HSR No. : <input type="checkbox"/> Others													

#R787-CCP-603  
"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-12059      DATE日期 2009.07.04      PAGE OF页码 1/6      Revision No: 0

PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS	
DRAWING NO. 图号: FB28 11th lifting floor beam		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>th</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-345F2-X 14/12/20/30/18/22 mm
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT/BUTT

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			
FB028-012-115				ACC.		100%MT
FB028-012-116				ACC.		100%MT
FB028-012-149				ACC.		100%MT
FB028-012-092				ACC.		25%MT
FB028-012-113				ACC.		25%MT
FB028-012-118				ACC.		100%MT
FB028-012-119				ACC.		100%MT
FB028-012-073				ACC.		100%MT
FB028-012-076				ACC.		100%MT
FB028-012-070				ACC.		100%MT
FB028-012-091				ACC.		100%MT
FB028-012-100				ACC.		100%MT
FB028-012-112				ACC.		100%MT
FB028-012-146				ACC.		100%MT
FB028-012-096				ACC.		25%MT
FB028-012-097				ACC.		25%MT

EXAMINED BY 主探 Li Zhenhua <u>Li zhen hua</u>	REVIEWED BY 审核 <u>sun gong chang</u>
LEVEL - II SIGN 签名 / DATE日期 <u>op. 07.4</u>	LEVEL-II SIGN / DATE日期 <u>op. 07.4</u>
质量经理 / QCM <u>[Signature]</u>	用户CUSTOMER
签字 SIGN / 日期 DATE <u>[Signature] 07.13</u>	签字 SIGN / 日期 DATE



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-12059      DATE日期 2009.07.04      PAGE OF页码 2/6      Revision No: 0

PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS	
DRAWING NO. 图号: FB28 11th lifting floor beam		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-345F2-X 14/12/20/30/18/22 mm
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT/BUTT

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			
FB028-012-104				ACC.		25%MT
FB028-012-105				ACC.		25%MT
FB028-012-089				ACC.		25%MT
FB028-012-090				ACC.		25%MT
FB028-012-098				ACC.		25%MT
FB028-012-099				ACC.		25%MT
FB028-012-109				ACC.		25%MT
FB028-012-110				ACC.		25%MT
FB028-012-084				ACC.		25%MT
FB028-012-085				ACC.		25%MT
FB028-012-074				ACC.		25%MT
FB028-012-075				ACC.		25%MT
FB028-012-082				ACC.		25%MT
FB028-012-083				ACC.		25%MT
FB028-012-094				ACC.		25%MT
FB028-012-095				ACC.		25%MT

EXAMINED BY主探 Li Zhenhua <i>Li Zhenhua</i>	REVIEWED BY 审核 <i>Sun gongy cheng</i>
LEVEL - II SIGN 签名 / DATE日期 <i>07.07.04</i>	LEVEL-II SIGN / DATE日期 <i>07.07.04</i>
质量经理 / QCM <i>[Signature]</i>	用户CUSTOMER
签字 SIGN / 日期 DATE <i>07.07.13</i>	签字 SIGN / 日期 DATE



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-12059		DATE日期 2009.07.04		PAGE OF页码 3/6	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: FB28 11th lifting floor beam			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>th</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-345F2-X  14/12/20/30/18/22 mm			
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT/BUTT			
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			
FB028-012-102				ACC.		25%MT
FB028-012-103				ACC.		25%MT
FB028-012-147				ACC.		25%MT
FB028-012-134				ACC.		25%MT
FB028-012-135				ACC.		25%MT
FB028-012-142				ACC.		25%MT
FB028-012-143				ACC.		25%MT
FB028-012-068				ACC.		25%MT
FB028-012-069				ACC.		25%MT
FB028-012-036				ACC.		25%MT
FB028-012-037				ACC.		25%MT
FB028-012-038				ACC.		25%MT
FB028-012-039				ACC.		25%MT
FB028-012-040				ACC.		25%MT
FB028-012-041				ACC.		25%MT
FB028-012-042				ACC.		25%MT
EXAMINED BY 主操 Li Zhenhua <i>Li zhen hua</i>			REVIEWED BY 审核 <i>Sun gong chang</i>			
LEVEL - II SIGN 签名 / DATE日期 <i>07.04</i>			LEVEL-II SIGN / DATE日期 <i>07.04</i>			
质量经理 / QCM <i>[Signature]</i>			用户CUSTOMER			
签字 SIGN / 日期 DATE <i>07.13</i>			签字 SIGN / 日期 DATE			



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-12059      DATE日期 2009.07.04      PAGE OF页码 4/6      Revision No: 0

PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS	
DRAWING NO. 图号: FB28 11th lifting floor beam		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-345F2-X 14/12/20/30/18/22 mm
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT/BUTT

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			
FB028-012-043				ACC.		25%MT
FB028-012-044				ACC.		25%MT
FB028-012-045				ACC.		25%MT
FB028-012-046				ACC.		25%MT
FB028-012-047				ACC.		25%MT
FB028-012-048				ACC.		25%MT
FB028-012-049				ACC.		25%MT
FB028-012-022				ACC.		25%MT
FB028-012-023				ACC.		25%MT
FB028-012-024				ACC.		25%MT
FB028-012-025				ACC.		25%MT
FB028-012-026				ACC.		25%MT
FB028-012-027				ACC.		25%MT
FB028-012-028				ACC.		25%MT
FB028-012-029				ACC.		25%MT
FB028-012-030				ACC.		25%MT

EXAMINED BY 主探 Li Zhenhua <i>Li Zhenhua</i>	REVIEWED BY 审核 <i>Sun yong chang</i>
LEVEL - II SIGN 签名 / DATE日期 <i>07.07.09</i>	LEVEL-II SIGN / DATE日期 <i>07.07.09</i>
质量经理 / QCM <i>[Signature]</i>	用户 CUSTOMER
签字 SIGN / 日期 DATE <i>[Signature] 0713</i>	签字 SIGN / 日期 DATE



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-12059		DATE日期 2009.07.04		PAGE OF页码 5/6	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: FB28 11th lifting floor beam			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-345F2-X 14/12/20/30/18/22 mm			
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT/BUTT			
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			
FB028-012-031				ACC.		25%MT
FB028-012-032				ACC.		25%MT
FB028-012-033				ACC.		25%MT
FB028-012-034				ACC.		25%MT
FB028-012-035				ACC.		25%MT
FB028-012-058				ACC.		100%MT
FB028-012-059				ACC.		100%MT
FB028-012-060				ACC.		100%MT
FB028-012-061				ACC.		100%MT
FB028-012-062				ACC.		100%MT
FB028-012-063				ACC.		100%MT
FB028-012-064				ACC.		100%MT
FB028-012-065				ACC.		100%MT
FB028-012-066				ACC.		100%MT
FB028-012-067				ACC.		100%MT
FB028-012-050				ACC.		25%MT
EXAMINED BY主操 Li Zhenhua <i>Li Zhenhua</i>			REVIEWED BY 审核 <i>Sun Jolly Chang</i>			
LEVEL - II SIGN 签名 / DATE日期 <i>09.07.04</i>			LEVEL-II SIGN / DATE日期 <i>09.07.04</i>			
质量经理 / QCM <i>[Signature]</i>			用户CUSTOMER			
签字 SIGN / 日期 DATE <i>09.07.13</i>			签字 SIGN / 日期 DATE			



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-12059		DATE日期 2009.07.04		PAGE OF页码 6/6	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: FB28 11th lifting floor beam			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-345F2-X  14/12/20/30/18/22 mm			
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT/BUTT			
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			
FB028-012-051				ACC.		25%MT
FB028-012-052				ACC.		25%MT
FB028-012-053				ACC.		25%MT
FB028-012-054				ACC.		25%MT
FB028-012-055				ACC.		25%MT
FB028-012-056				ACC.		25%MT
FB028-012-057				ACC.		25%MT
FB028-012-126				ACC.		100%MT
FB028-012-127				ACC.		100%MT
AFTER HSR1(B)-6839,6888, HSR 1(B)-6882						
BLANK						
EXAMINED BY主探 Li Zhenhua <i>Li zhen hua</i> LEVEL - II SIGN 签名 / DATE日期 <i>07.07.09</i>			REVIEWED BY 审核 <i>Sun gang chang</i> LEVEL-II SIGN / DATE日期 <i>07.07.09</i>			
质量经理 / QCM <i>[Signature]</i> 签字 SIGN / 日期 DATE <i>07.13</i>			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-000360**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 30-Nov-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0303**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:** 13-Jun-2009**Description of Non-Conformance:**

During random in-process visual inspection of Floor Beam FB028-012, Caltrans Quality Assurance (QA) Inspector observed single pass fillet welds that measured approximately 13mm (welds FB028-012-134 & 143). The supporting WPS (WPS-B-T-2133) is only qualified for a maximum single pass of 9mm.

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

Grind welds to appropriate size and perform required NDT.

**Corrective action taken:**

ZPMC ground the welds specified size and performed the required NDT showing that the welds are in conformance. Also, ZPMC has instructed the shop foremen and QC of the importance of meeting fillet weld size and maintain required heat input values.

**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**