

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 #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000492**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 17-Oct-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0465**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Segment 6CE
Procedural	Procedural	Description:	

Reference Description: Blasting and Painting of OBG Segment 6CE prior to obtaining the "QA Approval Form"

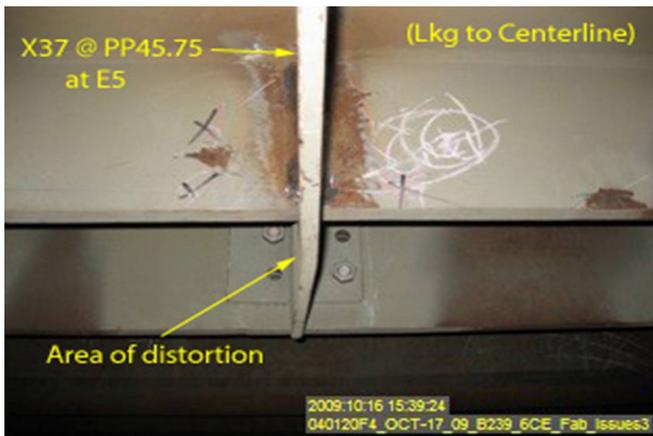
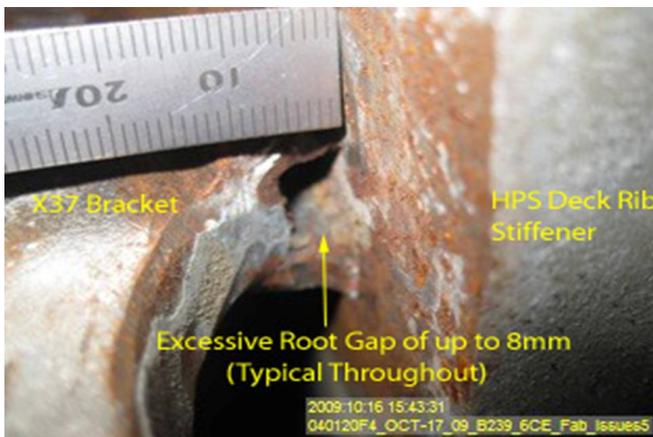
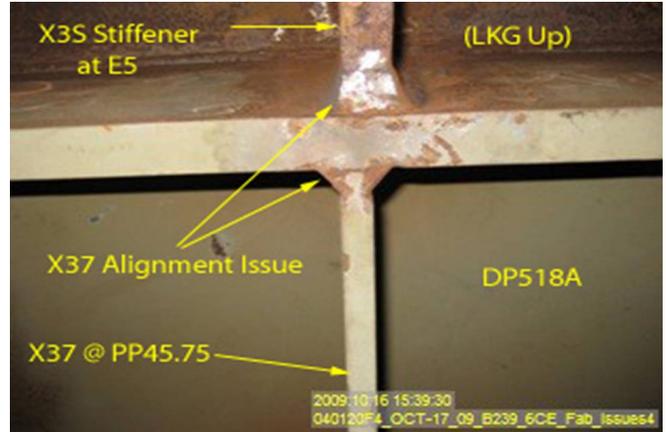
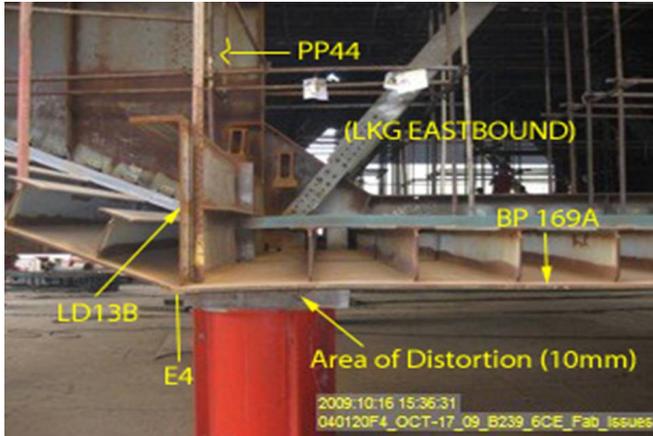
Description of Non-Conformance:

The Caltrans Quality Assurance (QA) Inspector arrived onsite at the ZPMC fabrication facility at 0700 on October 17th, 2009 and observed that the OBG segment 6CE had been moved to the shop for blasting and painting the previous night prior to the completion of the following fabrication and obtaining the "QA Approval Form" per CCO77.

1. Bottom Panel BP169A and the transverse angle X74E were found with distortion measured up to 10mm at the storage block location for panel point 43.5 at work point E4.
2. The transverse X37 Deck Brackets in this segment require a fillet weld per approved drawings with the maximum root opening not to exceed 5mm as allowed by AWS D1.5/2002 Section 3.3.1. The termination of these fillet welds at the following locations show a root gap greater than that allowed by the code:
 - X37 Brackets at Location E2 at the following panel points: 43.25, 43.75, 44.25, 44.75, 45.25, 45.75, 46.25, and 46.75.
 - X37 Brackets at Location E5 at the following panel points: 45.25, 45.75, 46.25, and 46.75.
3. The transverse X37 Deck Bracket at panel point 45.75 at location E5 is distorted and misaligned with the adjacent X3S Deck Stiffener.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

1. Special Provisions Section 10-1.59 Shop Welding, Dimensional Tolerances- Component walls of box girder shall be straight within 1:1000, measured in the direction of the axis of the girder or crossbeam, where the girder axis is defined to be in the longitudinal direction of the bridge and the crossbeam axis is defined to be along the transverse axis of the bridge.

2. AWS D1.5/2002 Section 3.3.1- "The parts to be joined by fillet welds shall be brought into as close contact as practicable. The root opening shall not exceed 5 mm [3/16 in.] except in cases involving either shapes or

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

plates 75 mm [3 in.] or greater in thickness if, after straightening and in assembly, the root opening cannot be closed sufficiently to meet this tolerance. In such cases, a maximum root opening of 8mm may be used, with a backing weld or suitable backing. If the root opening is greater than 2 mm, the leg of the fillet weld shall be increased by the amount of the root opening or the Contractor shall demonstrate that the required weld size has been obtained.”

3. Standard Specifications July 1999, Section 55-3.01; Workmanship and finish shall be equal to the best general practice in modern bridge shops.

-AWS D1.5/2002 Section 3.4.1; In assembling and joining parts of a structure or of built-up members and in welding reinforcing parts to members, the procedure and sequence shall minimize distortion and shrinkage.

-Standard Specifications July 1999, Section 55-3.09; Finish members shall be true to line and free from twists, bends and open joints.

4. Contract Change Order CCO77, Section 3.3.i) “The QA approval form shall be issued for the following subassemblies: Segment assembly before painting and lift assembly.”

Who discovered the problem: Rodney Patterson

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 1000 hours, verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1400 hours, verbal

QC Inspector's Name: Zhang Wei

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

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 Mazen Wahbeh, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Carreon,Albert	Lead Reviewer/Task Leader
Reviewed By:	Wahbeh,Mazen	SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge

333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 04-Dec-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: 05.03.06-000455

Subject: NCR No. ZPMC-0465

Reference Description: Blasting and Painting of OBG Segment 6CE prior to obtaining the "QA Approval Form"

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:** 06

Remarks:

The Caltrans Quality Assurance (QA) Inspector arrived onsite at the ZPMC fabrication facility at 0700 on October 17th, 2009 and observed that the OBG segment 6CE had been moved to the shop for blasting and painting the previous night prior to the completion of the following fabrication and obtaining the "QA Approval Form" per CCO77.

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X37 Brackets at Location E5 at the following panel points: 45.25, 45.75, 46.25, and 46.75.
3. The transverse X37 Deck Bracket at panel point 45.75 at location E5 is distorted and misaligned with the adjacent X3S Deck Stiffener.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Obtain QA Approval Form.

Transmitted by: Bill Howe

Attachments: ZPMC-0465

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao

NCT

(Continued Page 2 of 2)

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000455

Subject: NCR No. ZPMC-0465

Dated: 08-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000573 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: Once the QA approval forms are signed after trial assembly is complete, ZPMC will provide them to close this NCR.

Once the QA approval forms are signed after trial assembly is complete, ZPMC will provide them to close this NCR. Since it is clear that the documents required to close this NCR will not be available until that time, ZPMC request that this proposal be accepted with action pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000573R00

Caltrans' comments:

Status: REJ

Date: 08-Feb-2010

The documents requested are for work already completed. There is not a connection between the requested documents and completion of trial assembly. This NPR is rejected.

Submitted by: Howe, Bill

Attachment(s):

Date: 08-Feb-2010

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000455

Subject: NCR No. ZPMC-0465

Dated: 10-Feb-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000573 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: Until the remaining tags are signed, ZPMC requests that this proposal be accepted with actions pending.

To close this NCR, when ZPMC, ABFJV, and Caltrans agree that the non conformances documented have been corrected and the material is in conformance ZPMC will request the green tags not yet signed for this segment be signed by all three parties. Until the remaining tags are signed, ZPMC requests that this proposal be accepted with actions pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000573R01

Caltrans' comments:

Status: AAP

Date: 11-Feb-2010

AAP approved.

Submitted by: Howe, Bill

Attachment(s):

Date: 11-Feb-2010

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000455

Subject: NCR No. ZPMC-0465

Dated: 15-Mar-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000573 Rev: 02

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has cleared the items on this NCR on the punchlist and is providing documentation to show that the items documented are now acceptable. This segment has been green tagged completely as well.

ZPMC has cleared the items on this NCR on the punchlist and is providing documentation to show that the items documented are now acceptable. This segment has been green tagged completely as well. Based on this ZPMC request closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000573R02;

Caltrans' comments:

Status: CLO
Date: 17-Mar-2010

The documentation received is sufficient to close this NCR.

Submitted by: Howe, Bill

Attachment(s):

Date: 17-Mar-2010



No. B-669

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-3-15

REGARDING: NCR-000492(ZPMC-0465)

Part 1. The Bottom Plate BP169A is assisting with the bottom transverse splice weld. The bottom splice weld has been finished and is now acceptable.

Part 2. All the X37s where the root opening exceed 5mm have been removed from CA and the free edges were built up to ensure the root opening to be satisfied.

Part 3. ZPMC has adjusted the misalignment of X3S at PP45.75.

ZPMC is providing the WRRs and NDT records to show that the repaired areas are acceptable. This issue has been confirmed and removed from punchlist. Please be noticed the green tags will be achieved after the NCR has been closed. Based on this ZPMC requests closure of this NCR.

ATTACHMENT:

NCR-000492(ZPMC-0465)

B-WR8987

B787-MT-16793

B787-MT-17290

B787-MT-17291

B787-MT-17292

B787-MT-17293

B787-MT-17294

B787-MT-17295

B787-MT-17296

B787-MT-17297

B787-MT-17298

B787-MT-19925

B787-MT-19926

B-WR9067

B787-UT-10318

B787-MT-17010

B-WR10882

B787-MT-20652

3/15/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
 333 Burma Road
 Oakland CA 94607
 Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To:	AMERICAN BRIDGE/FLUOR, A JV 375 BURMA ROAD OAKLAND CA 95607	Date:	04-Dec-2009
Dear:	Mr. Charles Kanapicki	Contract No:	04-0120F4 04-SF-80-13.2 / 13.9
Attention:	Mr. Thomas Nilsson Project/Fabrication Manager	Job Name:	SAS Superstructure
Subject:	NCR No. ZPMC-0465	Document No:	05.03.06-000455

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Lift: 06

Remarks:

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Action Required and/or Action Taken:

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Transmitted by: Bill Howe

Attachments: ZPMC-0465

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao

2.02:15.04
 NCT 05.03.06-000455.NCT

Received
 NCT-000455 04 Dec 09 Page 1 of 2

NCT

(Continued Page 2 of 2)

File: 05.03.06

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
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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-000492

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 17-Oct-2009

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

NCR #: ZPMC-0465

Type of problem:

Welding Concrete Other

Welding Curing Procedural

Bridge No: 34-0006

Joint fit-up Coating Other

Component: OBG Segment 6CE

Procedural Procedural Description:

Reference Description: Blasting and Painting of OBG Segment 6CE prior to obtaining the "QA Approval Form"

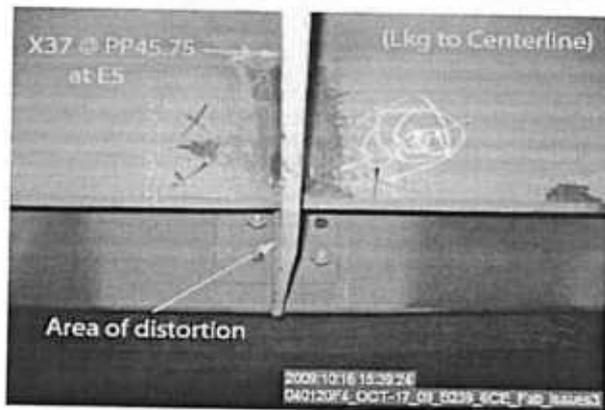
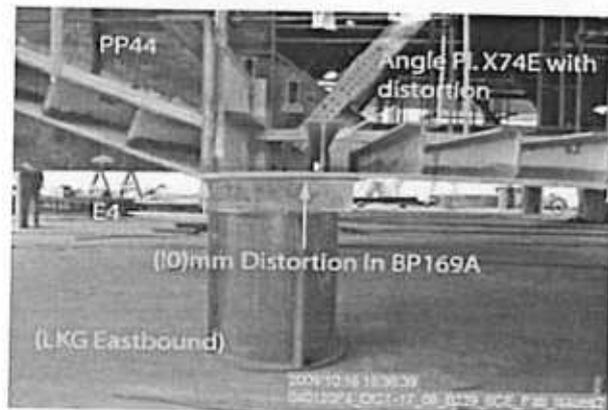
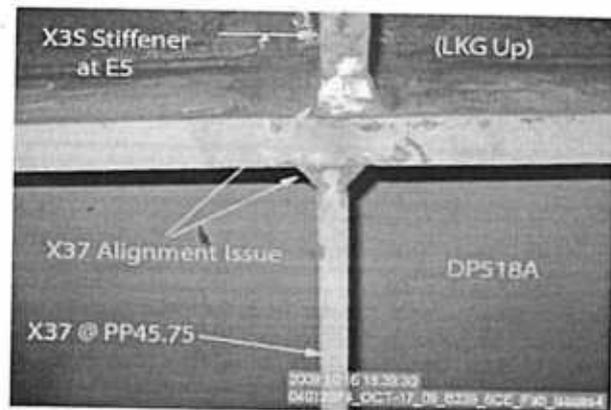
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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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Who discovered the problem: Rodney Patterson

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 1000 hours, verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1400 hours, verbal

QC Inspector's Name: Zhang Wei

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

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 Mazen Wahbeh, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Carreon, Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh, Mazen

SMR

12/19 日报 B-MT16793



焊缝返修报告

Welding Repair Report

Rev. No. 0

项目名称 Project Name	美国梅湾大桥 SFOBB	部件图号 Drawing No	X37A	报告编号 Report No.	B-WR8987
合同号 Contract No.:	04-0120F4	部件名称 Items Name	角单元加强筋板 Corner assembly stiffener	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

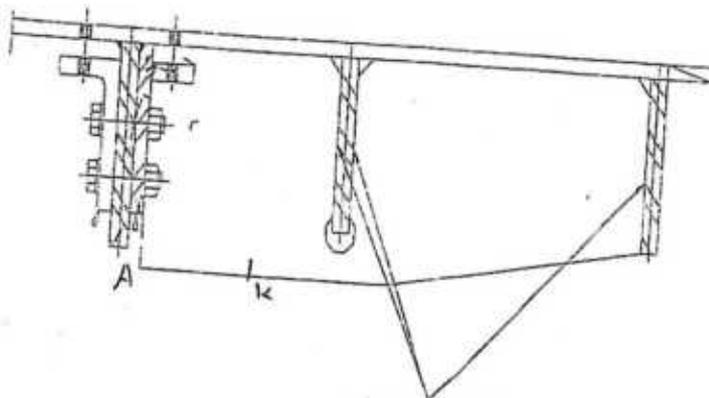
Description of welding discontinuity:

由于X37A与顶板I肋螺栓连接处的贴合面存在较大间隙，需去除部分焊缝，调整间隙，共15处。
The gap was exceeded requirement at X37A and deck plate I-rib bolt connect, and need to remove weld to adjusted gap, total 15 positions.

检验员 (Inspector): zhangqiang 日期(Date): 09.12.06

焊缝返修位置示意图:

Draft of welding discontinuity:



涉及焊缝位置

Position

产生原因:

Caused:

焊接变形和制造误差。

Weld distortion and fabricated error.

处理意见

车间负责人(Foreman): *Lizhiyong* 日期(Date): 07.12.06

Disposition:

1. 采用碳割或火焰切割的方法将上述焊缝去除, 碳割前根据相应WPS预热;
2. 在焊缝去除后调整件X37K, 如果件X37K与顶板I肋之间的间隙超差, 则先进行堆焊, 然后再重新装配件X37K.
3. 将要修补的区域打磨光滑;
4. 准备一个正确的接头形式, 具体参见返修的WPS;
5. 返修前做100%VT和100%MT确保没有缺陷存在;
6. 根据返修的焊接返修工艺规程(WPS)进行预热及焊接;
7. 返修后将焊缝打磨至与母材平齐;
8. 根据图纸要求进行相应的NDT检测;

1. Remove the welds mentioned above by the way of cutting or gouging. Preheat according to the WPS prior to gouging.
2. Adjust item X37K after removing welds, if gap between I-Rib and item X37K exceed allowance, weld the item X37K before reassembling it.
3. Grind the edge of the repair area cleanly;
4. Prepare an right joint according to the approved WPS;
5. Perform 100%VT and 100%MT to the repair area to make sure no defects exist;
6. Preheat and weld according to the relevant WPS;
7. Grind the welds to flush with the adjacent base metal;
8. Perform relevant NDT inspection to the repair welds according to the working drawings.

工艺:
Technical engineer *Hexiaolin*

审核:
Approved by *Lu Jianhua*

日期
Date 07.12.06



焊接返修报告
Welding Repair Report

Report No. 0

项目名称 Project Name	奥钢海河大桥 SFOBS	部件图号 Drawing No.	X37A	报告编号 Report No.	B-WR0987
合同号 Contract No.:	04-0120F4	部件名称 Items Name	角单元加强筋板 Corner assembly stiffener	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

纠正措施:
Correction action to prevent re occurrence:
加强焊接过程中的监控, 减少误差。
Enhance supervision in process of welding to reduce error.

HJ506F-1

车间负责人(Foreman): Li Zhijun 日期(Date): 09.12.06

参照的WPS编号 Repair WPS No.	WPS-345485-SMAW-35(37)-Repair-1		工艺员 technologist	He Xiaolin 09.12.06	
返修(碳割)前预热温度 Preheat temperature before gouging	70°C	返修的缺陷 Description of discontinuity	NA		
焊前处理检查 Inspection before welding	Acc	焊前预热温度 Preheat temperature before welding	135°C		
最大碳割深度 Max. depth of gouging	NA	碳割总长 Total length of gouging	NA		
焊工 welder	201087	焊接类型 welding type	SMAW	焊接位置 position	3F
焊接电流 Current	177	焊接电压 Voltage	24.4	焊接速度 Speed	120
返修后检查 Inspection After repairing:					
外观检查 VT result	Acc	检验员 Inspector	Li Yanhua 07120707	日期 Date	2009.12.28
NDT复检 NDT result	Acc	探伤员 NDT person	Li Zhijun	日期 Date	09.12.29
见证: Witness/Review:					
备注: Remark:					



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-16793 DATE日期 2009.12.15 PAGE OF页码 1/1 Revision No: 0

PROJECT NO. 工程编号: ZP06-787 CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: SEG28H/J CA30/28 DECK PLATE I RIB 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. 28th, 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 磁轭式连接法 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-HPS485W 30mm

WELDING PROCESS 焊接方法 NA TYPE OF JOINT 焊缝类型 NA

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			
RS30C				ACC.		100%MT
RS32D				ACC.		100%MT
RS62H				ACC.		100%MT
RS62G				ACC.		100%MT
RS62F				ACC.		100%MT

BASE MATAL PER B-WR8987

BLANK

EXAMINED BY 主操: LIZHEN HUA REVIEWED BY 审核: SU WEI
 LEVEL-II SIGN 签名 / DATE日期 09.12.15 LEVEL-II SIGN 1 DATE日期 09.12.15
 质检经理 / QCM: 用户 CUSTOMER: 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-17290		DATE日期 2009.12.29		PAGE OF页码 1/1		Revision No: 0	
PROJECT NO. 工程编号: ZP06-787				CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: SEG028H OBG CORNER ASSEMBLY				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 校准校正有效期 Dec. 28 th , 2010	
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/A709M-HPS-485WT2 16/30mm					
WELDING PROCESS 焊接方法 SMAW		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			
SEG028H-030				ACC.		after repaired
SEG028H-031				ACC.		after repaired
SEG028H-034				ACC.		after repaired
SEG028H-035				ACC.		after repaired
SEG028H-036				ACC.		after repaired
SEG028H-037				ACC.		after repaired
SEG028H-127				ACC.		after repaired
SEG028H-128				ACC.		after repaired
SEG028H-129				ACC.		after repaired
SEG028H-130				ACC.		after repaired
SEG028H-131				ACC.		after repaired
SEG028H-132				ACC.		after repaired

AFTER B-WR8987

BLANK

EXAMINED BY 主检 Li Zhenhua <i>Li zhenhua</i>		REVIEWED BY 审核 <i>Su wei</i>	
LEVEL - II SIGN 签名 / DATE日期 <i>12.29</i>		LEVEL-II SIGN / DATE日期 <i>12.29</i>	
顾客签字 / QCM <i>Li zhenhua</i>		用户/CUSTOMER	
签字 SIGN / 日期 DATE		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-17291 DATE日期 2009.12.29 PAGE OF页码 1/1 Revision No: 0

PROJECT NO. 工程编号: ZP06-787 CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: SEG032J CALTRANS CONTRACT NO.: 加州工程编号: 04-0120F4
 OBG CORNER ASSEMBLY

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. 28th, 2010

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 Material & thickness 母材, 厚度: A709M-345T2-X/A709M-HPS-485WT2
 CASTING 铸件 16/30mm
 FORGING 锻造

WELDING PROCESS 焊接方法: SMAW 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			
SEG032J-007				ACC.		after repaired
SEG032J-008				ACC.		after repaired
SEG032J-011				ACC.		after repaired
SEG032J-012				ACC.		after repaired
SEG032J-013				ACC.		after repaired
SEG032J-014				ACC.		after repaired
SEG032J-030				ACC.		after repaired
SEG032J-031				ACC.		after repaired
SEG032J-034				ACC.		after repaired
SEG032J-035				ACC.		after repaired
SEG032J-036				ACC.		after repaired
SEG032J-037				ACC.		after repaired

AFTER B-WR8987

BLANK

EXAMINED BY 主报: Li Zhenhua Li Zhenhua 09.12.29
 LEVEL-II SIGN 签名 / DATE 日期
 质量经理 / QCM

REVIEWED BY 审核: Sun Gang chun Sun Gang chun 09.12.29
 LEVEL-II SIGN 签名 / DATE 日期
 用户 CUSTOMER

签字 SIGN / 日期 DATE

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-17292		DATE日期 2009.12.29	PAGE OF 页码 1/1	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: CA028 OBG CORNER ASSEMBLY		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 th , 2010	
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/A709M-HPS-435WT2 16/30mm	
WELDING PROCESS 焊接方法	SMAW	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			
CA028-033				ACC.		after repaired
CA028-034				ACC.		after repaired
CA028-035				ACC.		after repaired
CA028-036				ACC.		after repaired
CA028-037				ACC.		after repaired
CA028-038				ACC.		after repaired

AFTER B-WR8987

BLANK

EXAMINED BY 主操 LI Zhenhua	REVIEWED BY 审核 Su wei
LEVEL-II SIGN 签名 / DATE 日期 2009.12.29	LEVEL-II SIGN 签名 / DATE 日期 2009.12.29
QC M Li Jianhua 2009.12.29	用户 CUSTOMER
签字 SIGN / 日期 DATE	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-17293

DATE日期 2009.12.29

PAGE OF页码 1/1

Revision No: 0

PROJECT NO.

ZP06-787

CONTRACTOR:

CALTRANS

DRAWING NO.

CA028

CALTRANS CONTRACT NO.:

04-0120F4

图号:

OBG CORNER ASSEMBLY

加州工程编号

REFERENCING CODE

ACCEPTANCE STANDARD

PROCEDURE NO.

CALIBRATION DUE DATE

参考规范编码

接受标准

程序编号

仪器校正有效期

AWS D1.5-2002

AWS D1.5-2002

ZPQC-MT-01

Dec. 28th, 2010

EQUIPMENT 设备

MANUFACTURER 制造商

MODEL NO. 样式编号

SERIAL NO. 连续编号

MT YOKE

PARKER

B310S

5395 5617 5620

MAGNETIZING METHOD

Continuous magnetic yoke

CURRENT

AC

磁化方法

磁轭式连续法

电流

PARTICLE TYPE

Dry magnet powder

YOKE SPACING

70~150mm

磁粉类型

干磁粉

磁轭间距

MATERIAL TO BE

WELDING 焊接件

Material & thickness

A709M-345T2-X/A709M-HPS-

EXAMINED

CASTING 铸件

母材,厚度

485WT2

检测材料

FORGING 锻造

16/30mm

WELDING PROCESS

SMAW

TYPE OF JOINT

T-JOINT

焊接方法

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			
CA028-057				ACC.		after repaired
CA028-058				ACC.		after repaired
CA028-059				ACC.		after repaired
CA028-060				ACC.		after repaired
CA028-061				ACC.		after repaired
CA028-062				ACC.		after repaired
CA028-045				ACC.		after repaired
CA028-046				ACC.		after repaired
CA028-047				ACC.		after repaired
CA028-048				ACC.		after repaired
CA028-049				ACC.		after repaired
CA028-050				ACC.		after repaired

AFTER B-WR8987

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EXAMINED BY主操

LI Zhenhua

Li zhen hua

REVIEWED BY审核

LEVEL-II SIGN 签名 / DATE日期

12.29

LEVEL-II SIGN

DATE日期

检测经理 / QCM

Li zhen hua 09.12.29

用户CUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

FORM ZPQC-MT-01



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17294

DATE日期 2009.12.29

PAGE OF页码 1/1

Revision No: 0

PROJECT NO.

ZP06-787

CONTRACTOR:

CALTRANS

DRAWING NO.

CA030

CALTRANS CONTRACT NO.:

04-0120F4

图号:

OBG CORNER ASSEMBLY

加州工程编号

REFERENCING CODE

ACCEPTANCE STANDARD

PROCEDURE NO.

CALIBRATION DUE DATE

参考规范编码

接受标准

程序编号

仪器校正有效期

AWS D1.5-2002

AWS D1.5-2002

ZPQC-MT-01

Dec. 28th, 2010

EQUIPMENT 设备

MANUFACTURER 制造商

MODEL NO. 样式编号

SERIAL NO. 连续编号

MT YOKE

PARKER

B310S

5395 5617 5620

MAGNETIZING METHOD

Continuous magnetic yoke

CURRENT

AC

磁化方法

磁轭式连续法

PARTICLE TYPE

Dry magnet powder

YOKE SPACING

70~150mm

磁粉类型

干磁粉

MATERIAL TO BE

WELDING 焊接件

Material & thickness

A709M-345T2-X/A709M-HPS-

EXAMINED

CASTING 铸件

母材, 厚度

16/30mm

检测材料

FORGING 锻造

WELDING PROCESS

SMAW

TYPE OF JOINT

T-JOINT

焊接方法

WELD I.D.

焊缝编号

DISCONTINUITY不连续性

INDICATION

指示

TYPE

类型

LENGTH IN mm

长度

ACCEPT

接受

REJECT

拒收

REMARKS

备注

CA030-113

ACC.

after repaired

CA030-114

ACC.

after repaired

CA030-115

ACC.

after repaired

CA030-116

ACC.

after repaired

CA030-117

ACC.

after repaired

CA030-118

ACC.

after repaired

AFTER B-WR8987

BLANK

EXAMINED BY 主操

Li Zhenhua

Li Zhenhua

REVIEWED BY 审核

Sun Wei

LEVEL-II SIGN 签名 / DATE日期

12.29

LEVEL-II SIGN / DATE日期

质量经理 / QCM

Lu Jianhua

用户 CUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

FORM 300-001



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17295 DATE日期 2009.12.29 PAGE OF页码 1/1 Revision No: 0

PROJECT NO. 工程编号: ZP06-787 CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: CA030 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. 28th, 2010

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 Material & thickness 母材, 厚度: A709M-345T2-X/A709M-HPS-485WT2

WELDING PROCESS 焊接方法: SMAW 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			
CA030-073				ACC.		after repaired
CA030-074				ACC.		after repaired
CA030-075				ACC.		after repaired
CA030-076				ACC.		after repaired
CA030-077				ACC.		after repaired
CA030-078				ACC.		after repaired
CA030-085				ACC.		after repaired
CA030-086				ACC.		after repaired
CA030-087				ACC.		after repaired
CA030-088				ACC.		after repaired
CA030-089				ACC.		after repaired
CA030-090				ACC.		after repaired

AFTER B-WR8987

BLANK

EXAMINED BY 主操: Li Zhenhua REVIEWED BY 审核: Su wei

LEVEL-II SIGN 签名 / DATE日期: Li Zhenhua 09.12.29 LEVEL-II SIGN 签名 / DATE日期: Su wei 09.12.29

顾客 SIGN / 日期 DATE: 顾客 SIGN / 日期 DATE:



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17296

DATE日期 2009.12.29

PAGE OF页码 1/1

Revision No: 0

PROJECT NO. 工程编号: ZP06-787

CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: CA030
OBG CORNER ASSEMBLY

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. 28th, 2010

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 锻件

Material & thickness 母材, 厚度
A709M-345T2-X/A709M-HPS-485WT2
16/30mm

WELDING PROCESS 焊接方法
SMAW

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			
CA030-049				ACC.		after repaired
CA030-050				ACC.		after repaired
CA030-051				ACC.		after repaired
CA030-052				ACC.		after repaired
CA030-053				ACC.		after repaired
CA030-054				ACC.		after repaired
CA030-062				ACC.		after repaired
CA030-064				ACC.		after repaired

AFTER B-WR8987

BLANK

EXAMINED BY 检测

Li Zhenhua

Li Zhenhua

LEVEL - II SIGN 签名 / DATE日期

质量经理 / QCM

Li Zhenhua 09.12.29

REVIEWED BY 审核

Su Wei

LEVEL-II SIGN / DATE日期

用户CUSTOMER

检测 SIGN: 日期 DATE

签字 SIGN / 日期 DATE

FORM ZPQC-MT-01



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17297

DATE日期 2009.12.29

PAGE OF页码 1/1

Revision No: 0

PROJECT NO.

工程编号:

ZP06-787

CONTRACTOR:

用户:

CALTRANS

DRAWING NO.

图号:

CA030

OBG CORNER ASSEMBLY

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. 28ST, 2010

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/A709M-HPS-

485WT2

15/30mm

WELDING PROCESS

焊接方法

SMAW

TYPE OF JOINT

焊缝类型

T-JOINT

WELD I.D.

焊缝编号

DISCONTINUITY不连续性

INDICATION

指示

TYPE

类型

LENGTH IN mm

长度

ACCEPT

接受

REJECT

拒收

REMARKS

备注

CA030-025

ACC.

after repaired

CA030-026

ACC.

after repaired

CA030-027

ACC.

after repaired

CA030-028

ACC.

after repaired

CA030-029

ACC.

after repaired

CA030-030

ACC.

after repaired

CA030-038

ACC.

after repaired

CA030-040

ACC.

after repaired

AFTER B-WR8987

BLANK

EXAMINED BY主操

Li Zhenhua

Li Zhenhua

REVIEWED BY审核

Sun wei

LEVEL-II SIGN 签名 / DATE日期

质量经理 / QCM

Li Zhenhua 01.2.29

LEVEL-II SIGN / DATE日期

用户CUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

FORM ZPQC-MT-01



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17298

DATE日期 2009.12.29

PAGE OF页码 1/1

Revision No: 0

PROJECT NO.

ZP06-787

CONTRACTOR:

CALTRANS

工程编号:

用户:

DRAWING NO.

SEG028H

CALTRANS CONTRACT NO.:

04-0120F4

图号:

OBG CORNER ASSEMBLY

加州工程编号

REFERENCING CODE

ACCEPTANCE STANDARD

PROCEDURE NO.

CALIBRATION DUE DATE

参考规范编码

接受标准

程序编号

仪器校正有效期

AWS D1.5-2002

AWS D1.5-2002

ZPQC-MT-01

Dec. 28th, 2010

EQUIPMENT 设备

MANUFACTURER 制造商

MODEL NO. 样式编号

SERIAL NO. 连续编号

MT YOKE

PARKER

B310S

5395 5617 5620

MAGNETIZING METHOD

Continuous magnetic yoke

CURRENT

AC

磁化方法

磁轭式连续法

电流

PARTICLE TYPE

Dry magnet powder

YOKE SPACING

70~150mm

磁粉类型

干磁粉

磁轭间距

MATERIAL TO BE

WELDING 焊接件

Material & thickness

A709M-345T2-X/A709M-HPS-

EXAMINED

CASTING 铸件

母材, 厚度

485WT2

检测材料

FORGING 锻造

16/30mm

WELDING PROCESS

SMAW

TYPE OF JOINT

T-JOINT

焊接方法

WELD I.D.
焊缝编号

DISCONTINUITY 不连续性

INDICATION
指示

TYPE
类型

LENGTH IN mm
长度

ACCEPT
接受

REJECT
拒收

REMARKS
备注

SEG028H-139

ACC.

after repaired

SEG028H-140

ACC.

after repaired

SEG028H-143

ACC.

after repaired

SEG028H-144

ACC.

after repaired

SEG028H-145

ACC.

after repaired

SEG028H-146

ACC.

after repaired

AFTER B-WR8987

BLANK

EXAMINED BY 主检

Li Zhenhua

Li zhen hua

REVIEWED BY 审核

Sun wpi

LEVEL - II SIGN 签名 / DATE日期

01.2.29

LEVEL-II SIGN / DATE日期

01.2.25

质检经理 / QCM

Lu jian hua 01.12.29

用户 CUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

FORM 2900-111



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-19925 DATE日期 2009.12.29 PAGE OF页码 1/1 Revision No: 0

PROJECT NO. 工程编号: ZP06-787 CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: CA030 CORNER ASSEMBLY 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. 28th, 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 A709MHPS485WT2 16/30 mm

WELDING PROCESS 焊接方法: SMAW 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			
CA030-101				ACC.		after repaired
CA030-102				ACC.		after repaired
CA030-103				ACC.		after repaired
CA030-104				ACC.		after repaired
CA030-105				ACC.		after repaired
CA030-106				ACC.		after repaired

AFTER B - WR 8987

BLANK

EXAMINED BY主探
Li Zhenhua 09.12.29
LEVEL-II SIGN 签名 / DATE日期

REVIEWED BY审核
Sun Geny chun 09.12.29
LEVEL-II SIGN / DATE日期

质量经理 / QCM
签字 SIGN / 日期 DATE

用户CUSTOMER
签字 SIGN / 日期 DATE

12/19 日报



焊缝返修报告

Welding Repair Report

版本 Rev. No.

0

项目名称 Project Name	英国海湾大桥 SFOBB	部件图号 Drawing No	X37A	报告编号 Report No.	B-WR9067
合同号 Contract No.:	04-0120F4	部件名称 Items Name	角单元加强筋板 Corner assembly stiffener	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of welding discontinuity:

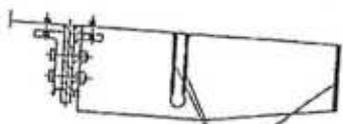
东线6吊段角单元内的X37K与顶板I肋的间隙超差, 现已去除. 根据返修报告B-WR8987处理要求, X37A需进行堆焊. 共15块.

The gap exceeded requirement at east line six lifting corner assembly X37K and deck plate I rib after remove weld according to B-WR8987, it needed to build up X37A, total 15 parts.

检验员 (Inspector): Zhang Qiang 日期(Date): 09.12.13

焊缝返修位置示意图:

Draft of welding discontinuity:



堆焊位置

Position

产生原因

Caused:

焊接变形和制作误差。

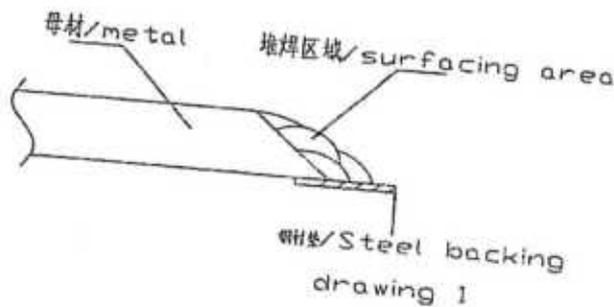
Weld distortion and fabricate error.

车间负责人(Foreman): *lizhi gang* 日期(Date): *09.12.13*

处理意见

Disposition :

1. 按照图纸要求对件X37A进行堆焊处理;
2. 将要修补的区域打磨光滑;
3. 准备一个正确的接头形式, 具体参见返修的WPS;
4. 做100%VT和100%MT, 并按照图一所示加钢衬垫, 具体参见AWS D1.5.3.13;
5. 根据返修的焊接返修工艺规程(WPS)进行预热及焊接;
6. 焊后去除钢衬垫, 将焊缝打磨至与母材平齐;
7. 根据图纸要求进行相应的NDT(VT、MT和UT)检测;



1. Perform surfing to item X37A per work drawing;
2. Grind the edge of the repair area cleanly;
3. Prepare an right joint according to the approved WPS;
4. Perform 100%VT and 100%MT, and add steel backing according to the attached drawing 1 and AWS D1.5.3.13;
5. Preheat and weld according to the relevant WPS;
6. Gouge off the steel backing and grind the weld flush with base metal after welding;
7. Perform NDT inspection(VT、MT and UT) of the weld according to the working drawings.

工艺: *HexiaoLin*
Technical engineer

09.12.13.

审核:
Approved by

Lu jian hua

日期
Date *09.12.14*



焊缝返修报告

Welding Repair Report

版本 Rev. No

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No.	X37A	报告编号 Report No.	B-WR9067
合同号 Contract No.:	04-0120F4	部件名称 Items Name	角单元加强筋板 Corner assembly stiffener	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

纠正措施:

Correction action to prevent re occurrence:

加强制作过程中的监控, 减少误差。

Enhance supervision in process of fabrication to reduce error.

车间负责人(Foreman): *Li Zhigang* 日期(Date): 09.12-13

参照的WPS编号 Repair WPS No.	WPS-345-SMAW-1 G(1F)-Repair WPS-345-FCAW-1 G(1F)-Repair-1	工艺员 technologist	<i>Hexiaolin</i> 09.12-13.
返修(碳刨)前预热温度 Preheat temperature before gouging	<i>N/A</i>	返修的缺陷 Description of discontinuity	<i>尺寸不规 gap</i>
焊前处理检查 Inspection before welding	<i>Acc</i>	焊前预热温度 Preheat temperature before welding	<i>94°C</i>
最大碳刨深度 Max. depth of gouging	<i>N/A</i>	碳刨总长 Total length of gouging	<i>N/A</i>
焊工 welder <i>044779 / 084013</i>	焊接类型 welding type <i>SMAW</i>	焊接位置 position <i>5G-1F</i>	
焊接电流 Current <i>158</i>	焊接电压 Voltage <i>24</i>	焊接速度 Speed <i>117</i>	
返修后检查 Inspection After repairing:			
外观检查 VT result <i>Acc</i>	检验员 Inspector <i>Likang hu</i> <i>07122701</i>	日期 Date <i>2009.12.17</i>	
NDT复检 NDT result <i>Acc UT</i> <i>Acc MT</i>	探伤员 NDT person <i>Li zhenhua</i>	日期 Date <i>09.12.19</i> <i>09.12.19</i>	
见证: Witness/Review:			
备注: Remark:			

#R787-QCP-900



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-17010

DATE日期 2009.12.22

PAGE OF页码 1/1

Revision No: 0

PROJECT NO.

工程编号: ZP06-787

CONTRACTOR:

用户: CALTRANS

DRAWING NO.

6AE/6BE/6CE

CALTRANS CONTRACT NO.:

04-0120F4

图号:

OBG CORNER ASSEMBLY DECK PLATE

加州工程编号

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. 28th, 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

WELDING PROCESS

焊接方法

FCAW

TYPE OF JOINT

焊缝类型

16mm

NA

WELD I.D.

焊缝编号

DISCONTINUITY 不连续性

INDICATION

指示

TYPE

类型

LENGTH IN mm

长度

ACCEPT

接受

REJECT

拒收

REMARKS

备注

X37A

ACC.

Base metal per B-WR9067

BLANK

EXAMINED BY 主操

Li Zhenhua

Li Zhenhua

REVIEWED BY 审核

LEVEL-II SIGN

SIGN

Sam Gray Chang

DATE日期 2009.12.22

质量经理 / QCM

W. Partha 2009.12.22

LEVEL-II SIGN / DATE日期 2009.12.22

用PCUSTOMER

签字 SIGN / 日期 DATE

签字 SIGN / 日期 DATE

FORM# ZPQC-MT01

ZPMC

焊缝返修报告
Welding Repair Report

Report No.

0

项目名称 Project Name	美国海油股份 SFOBB	零件图号 Drawing No	DP518	报告编号 Report No.	3-WR10002
合同号 Contract No.:	04-0120F4	部件名称 Items Name	X37筋板	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

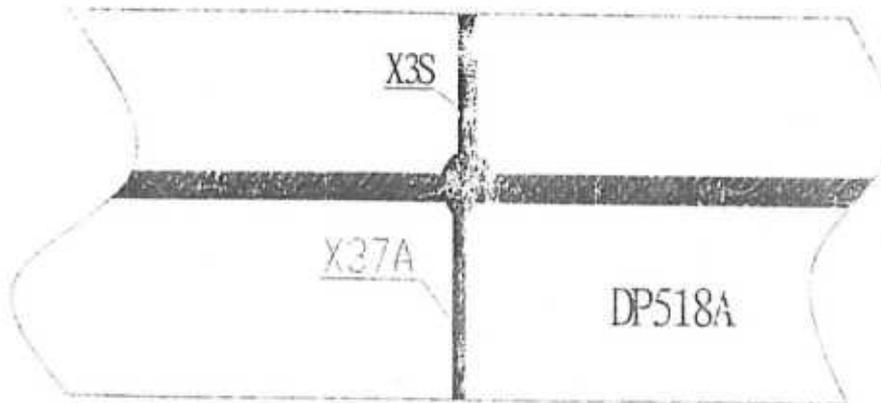
Description of welding discontinuity:

6CE顶板DP518A上安装的X37A筋板与X3S筋板对筋偏差 8 mm, 需要进行调整, 具体位置见下图:
Stiffener X37A and X3S on DP518A in segment DP518A were misaligned by 8mm, which need be adjusted. Please see the following sketch.

检验员 (Inspector): Wang Jie 日期(Date): 10.03.05

焊缝返修位置示意图:

Draft of welding discontinuity:



图表 1

产生原因:

Caused:

1. 焊接变形及装配误差。

Welding distortion and fabrication error.

车间负责人(Foreman): *Ma Ruiquan*

日期(Date): *2010.3.6*

处理意见

Disposition:

1. 采用碳刨的方法 equal 件 X3S 与 顶板、腹板的焊缝, 焊缝长度根据实际情况而定。注意不要伤及母材, 碳刨前应根据相应的 WPS 进行预热;
 2. 根据批准的返修 WPS 准备正确的焊接坡口;
 3. 按图纸要求调整件 X3S 位置使其与件 X8E 满足错边要求, 达 $\leq 3A$ 要求后定位;
 4. 焊接前对修补区域进行 VT 检测确认无缺陷存在;
 5. 根据批准的焊接工艺规程 (WPS) 进行预热及焊接;
 6. 焊接后将修补区域打磨光滑;
 7. 根据图纸要求对缝进行 NDT 检测;
1. Remove the welds between item X3S and DP and EP with a certain length by means of gouging, the length is determined by site situation. Be careful don't hurt base metal. Preheat according to relevant WPS prior to gouging;
 2. Prepare a proper weld groove according to approved repair WPS;
 3. Adjust item X3S to make its misalignment with item X8E meets requirement and then perform tack weld;
 4. Perform VT to the repair area to ensure no defect exist before welding;
 5. Preheat and weld according to the approved WPS;
 6. Grind the repair area to smooth finish.
 7. Perform relevant NDT to the weld in accordance with work drawing;

工 艺: *Hexiaolin*
Technical engineer *3/6/10*

审核:
Approved by

日期
Date

WJ-02/037



焊缝返修报告

Welding Repair Report

版本 Rev. No.

0

纠正措施:
Correction action to prevent re occurrence:
1. 加强装配时的质量监控严格控制尺寸变化。
Control the dimension during assembly.

车间负责人(Foreman): *Ma Ruiguan* 日期(Date): *2010.3.6*

返修后检查
Inspection After repairing:

见证:
Witness/Review:

备注:
Remark:



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-20652 DATE日期 2010.03.13 PAGE OF 页码 1/1 Revision No: 0

PROJECT NO. 工程编号: ZP06-787 CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: SEG032J 6CE CORNER ASSEMBLY 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 th , 2010
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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
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MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC
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PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm
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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/A709M-HPS485WT2 18/30mm
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WELDING PROCESS 焊接方法	SMAW	TYPE OF JOINT 焊缝类型	T-JOINT
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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			
SEG032J-036				ACC.		100%MT
SEG032J-037				ACC.		100%MT

AFTER B-WR10882

BLANK

EXAMINED BY 主探 Wang Wei <i>Wang Wei</i> 2010.03.13 LEVEL-II SIGN 签名 / DATE 日期 质量经理 / QCM	REVIEWED BY 审核 <i>SU Wei</i> 2010.03.13 LEVEL-II SIGN / DATE 日期 用户 CUSTOMER
签字 SIGN / 日期 DATE	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-000572**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 29-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0465**Type of problem:**

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

Date the Non-Conformance Report was written: 17-Oct-2009**Description of Non-Conformance:**

The Caltrans Quality Assurance (QA) Inspector arrived onsite at the ZPMC fabrication facility at 0700 on October 17th, 2009 and observed that the OBG segment 6CE had been moved to the shop for blasting and painting the previous night prior to the completion of the following fabrication and obtaining the "QA Approval Form" per CCO77.

1. Bottom Panel BP169A and the transverse angle X74E were found with distortion measured up to 10mm at the storage block location for panel point 43.5 at work point E4.

2. The transverse X37 Deck Brackets in this segment require a fillet weld per approved drawings with the maximum root opening not to exceed 5mm as allowed by AWS D1.5/2002 Section 3.3.1. The termination of these fillet welds at the following locations show a root gap greater than that allowed by the code:

X37 Brackets at Location E2 at the following panel points: 43.25, 43.75, 44.25, 44.75, 45.25, 45.75, 46.25, and 46.75.

X37 Brackets at Location E5 at the following panel points: 45.25, 45.75, 46.25, and 46.75.

3. The transverse X37 Deck Bracket at panel point 45.75 at location E5 is distorted and misaligned with the adjacent X3S Deck Stiffener.

Contractor's proposal to correct the problem:

Perform Heat Straightening to Bottom Plate distortion. Replace X-37 bracket with misalignment issue.

Remove X-37 brackets with oversized root openings for correction.

Corrective action taken:

Bottom Plate was heat straightened and is now in conformance with Contract tolerances. X37 brackets were removed and root opening issues were corrected by buttering. Misaligned X37 bracket was removed and replaced.

