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, PRC **Report No:** NCR-000204
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 09-Oct-2008
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0182

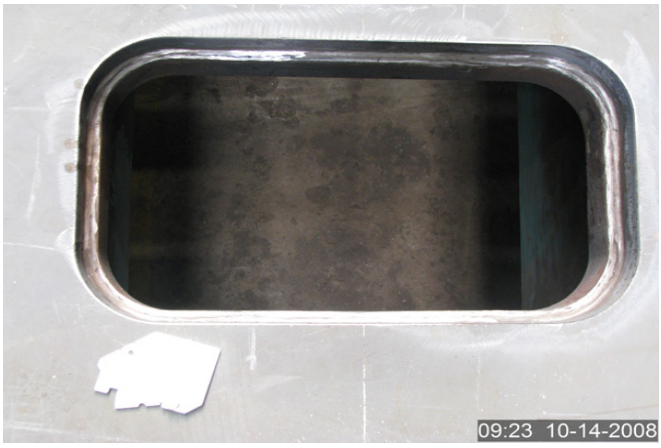
Type of problem:

Welding	☑	**Concrete**	☐	**Other**	☐	
Welding	☑	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☐	**Component:** Lift 1, South Shaft, Skin E
Procedural	☐	**Procedural**	☐	**Descripton:**		Doubler Plate Interior Fillet Weld

Reference Description: Section 2.8.1.2, AWS D1.5 2002

Description of Non-Conformance:

On Lift 1, South Tower, Skin Plate E there are two locations where the root face of the doubler plate to skin plate does not allow for the detailed 8mm fillet weld. The detailed root face requires 10mm and the as built condition is as small as 6mm. This condition also exists at various locations on Lift 1, South Tower, Skin Plate A, East Tower, Skins A and E.



Applicable reference:

Section 2.8.1.2, AWS D1.5 "The maximum fillet weld size detailed along edges of material shall be the following:...(2) 2 mm [1/16 in.] less than the thickness of base metal, for metal 6 mm [U4 in.] or more in thickness (see Figure 2.3, Detail B), unless the weld is designated on the drawing to be built out to obtain full throat thickness. In the as-welded condition, the distance between the edge of the base metal and the toe of the weld may be more or less than 2 mm [U16 in.], provided the weld size shall be clearly verifiable.

Who discovered the problem: Greg Bertlesman, Quality Assurance Inspector

Name of individual from Contractor notified: Don Walton

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: 10/09/08;1300;Verbal
Name of Caltrans Engineer notified: Scott Kennedy
Time and method of notification: 10/09/08; 1400;Verbal
QC Inspector's Name: Zhao Chen Sun
Was QC Inspector aware of the problem: ☐ **Yes** ☑ **No**
Contractor's proposal to correct the problem:
ABF/ZPMC has submitted ABF-RFI001539R00 "The south and east shafts doubler plates for Lift 1 on both A and E skin were fit up using AE line as a reference. This created a (max) 5mm offset of the center line doubler plate penetration to the skin plate penetration. Reference the attached sketch for the Current detail. Please note that the detail shown represents the worst case offset and that all penetrations on a given doubler plate have similar offsets. ZPMC has issued an internal NCR and will lay out future doubler plates based on the center lines of penetrations to avoid this problem in the future. Please confirm if the current detail is acceptable for the doubler plates which have been welded on Lift 1 South and East Shafts."

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 Ryan Smith, who represents the Office of Structural Materials for your project.

Inspected By:	Ishibashi,Josh	SMR
Reviewed By:	Smith,Ryan	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:**	22-Oct-2008
		Contract No:	04-0120F4 04-SF-80-13.2 / 13.9
Dear:	Mr. Charles Kanapicki	**Job Name:**	SAS Superstructure
Attention:	Mr. Dave Williams Consultant	**Document No:**	05.03.06-000175
Subject:	NCR No. ZPMC-0182		

Reference Description: undersized fillet weld at doubler plate strut openings

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: Tower **Lift:** 01

Remarks:

On Lift 1, South Tower, Skin Plate E there are two locations where the root face of the doubler plate to skin plate does not allow for the detailed 8mm fillet weld. The detailed root face requires 10mm and the as built condition is as small as 6mm. This condition also exists at various locations on Lift 1, South Tower, Skin Plate A, East Tower, Skins A and E.

See the attachment.

Action Required and/or Action Taken:

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

Transmitted by: Jun Xu

Attachments: ZPMC-0182

cc: Rick Morrow, Gary Pursell, Mark Woods, Doug Coe, Scott Kennedy

File: 05.03.06

AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV

P.O. BOX 23223 Oakland, CA 94623

Phone (510) 419-0120 / Fax (510) 839-0666

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000175

Subject: NCR No. ZPMC-0182

Dated: **28-Oct-2008**

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

Job Name: SAS Superstructure

Document No.: **ABF-NPR-000176 Rev: 00**

Contractor's Proposed Resolution:

Reference Resolution: An RFI for resolution was submitted to CT and rejected. ZPMC and ABF are currently trying to resolve this issue. All remaining doubler plates will be installed correctly.

An error occurred during the fabrication of the doubler plate to skin plate. The doubler plates were hand fit to the size of the hole and not off the centerline of the tower skin plate. An RFI for resolution was submitted to CT and rejected. ZPMC and ABF are currently trying to resolve this issue. All remaining doubler plates will be installed correctly.

Submitted by:

Attachment(s): ABF-NPR-000176R00

Caltrans' comments:

Status: AAP

Date: 02-Nov-2008

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

RFI 1539 regarding this issue was not approved, and asked that a repair procedure which provides an equivalent weld size to the original detail be submitted. After the issue is resolved, please provide documentation of welds performed, and that the welds in question are acceptable. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0182 at that time.

Submitted by: Wright, Doug

Date: 02-Nov-2008

Attachment(s):

AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV

P.O. BOX 23223 Oakland, CA 94623

Phone (510) 419-0120 / Fax (510) 839-0666

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000175

Subject: NCR No. ZPMC-0182

Dated: **06-Apr-2009**

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

Job Name: SAS Superstructure

Document No.: **ABF-NPR-000176 Rev: 01**

Contractor's Proposed Resolution:

Reference Resolution: ZPMC gouged out the area where the undersize fillet would occur to a depth of 8mm, grinding to bright metal before welding, welded the PJP plus able to achieve a 5mm fillet.

An error occurred during the fabrication of the doubler plate to skin plate. The doubler plates were hand fit to the size of the hole and not off the centerline of the tower skin plate resulting in a condition that will not provide adequate material to achieve the required fillet weld size on one side. To remedy this case, ZPMC gouged out the area where the undersize fillet would occur to a depth of 8mm, grinding to bright metal before welding, welded the PJP plus able to achieve a 5mm fillet. Attached are the VT and MT records of this weld. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000176R01;

Caltrans' comments:

Status: AAP

Date: 13-Apr-2009

The response is acceptable, but the Non-Conformance is not closed. A revised weld detail for the welds in question was submitted and approved through Field Change Notice FCN-113A.

The Non-Conformance was written for undersized welds on both the East and South shafts, but the attachment includes documentation for the South shaft only. Please provide documentation of the weld repairs that were performed and that the repairs were acceptable for the undersized welds on the doubler plates of Lift 1, East shaft. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0182 at that time.

Submitted by: Wright, Doug **Date:** 13-Apr-2009

Attachment(s):

FVT 2/28

ZPMC

周数	6##
日期	2009. 03. [illegible]

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号	04-0120F4	Girder/ 梁:	frist lifting
		Tower/ 塔:	Tower(s) skin A
		Quality Control Representative: 质检代表:	[signature]
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	C W I: 检验员:	[signature]
Project No.: 项目编号:	ZP06-787	Quality Assurance Manager ~Approval 质量控制经理:	[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
SSD1-SA15F/F-1	056134	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA15F/F-2	056134	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA15F/F-3	057286	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA15F/F-4	057286	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA15F/F-5	057286	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 T787-MT-2970	DATE日期 2009.03.14	PAGE OF页码 1/3	Revision No: 0

PROJECT NO. 工程编号:	ZP06-787	CONTRACTOR: 用 户:	CALTRANS
DRAWING NO. 图号:	SSD1-SA159B/J(A/J),SSD1-SA15F/F THE 1ST LIFT TOWER(S) SKIN A	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 ,2009
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z A709M-HPS-485WT2-Z 90/70/50mm
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			
SSD1-SA159B/J-16				ACC.		100%MT
SSD1-SA159B/J-17				ACC.		100%MT
SSD1-SA159B/J-18				ACC.		100%MT
SSD1-SA159B/J-19				ACC.		100%MT
SSD1-SA159B/J-20				ACC.		100%MT
SSD1-SA15F/F-1				ACC.		100%MT
SSD1-SA15F/F-2				ACC.		100%MT
SSD1-SA15F/F-3				ACC.		100%MT
SSD1-SA15F/F-4				ACC.		100%MT
SSD1-SA15F/F-5				ACC.		100%MT
SSD1-SA159A/J-1				ACC.		100%MT
SSD1-SA159A/J-2				ACC.		100%MT
SSD1-SA159A/J-3				ACC.		100%MT
SSD1-SA159A/J-4				ACC.		100%MT

EXAMINED BY主探	REVIEWED BY 审核
Xu Hai	Yuan Tao
LEVEL - II SIGN 签名 / DATE日期 09.3.14	LEVEL-II SIGN / DATE日期 09.3.14
质量经理 / QCM Lu Jianhua 09.03.18 签字 SIGN / 日期 DATE	用户CUSTOMER 签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV

P.O. BOX 23223 Oakland, CA 94623

Phone (510) 419-0120 / Fax (510) 839-0666

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000175

Subject: NCR No. ZPMC-0182

Dated: **18-May-2009**

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

Job Name: SAS Superstructure

Document No.: **ABF-NPR-000176 Rev: 02**

Contractor's Proposed Resolution:

Reference Resolution: ZPMC gouged out the area where the undersize fillet would occur to a depth of 8mm, grinding to bright metal before welding, welded the PJP plus able to achieve a 5mm fillet.

An error occurred during the fabrication of the doubler plate to skin plate. The doubler plates were hand fit to the size of the hole and not off the centerline of the tower skin plate resulting in a condition that will not provide adequate material to achieve the required fillet weld size on one side. To remedy this case, ZPMC gouged out the area where the undersize fillet would occur to a depth of 8mm, grinding to bright metal before welding, welded the PJP plus able to achieve a 5mm fillet. Attached are the VT and MT records of this weld. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000176R02;

Caltrans' comments:

Status: CLO

Date: 25-May-2009

The proposed resolution is acceptable. The corrective work on these welds has been completed on both the East and South shafts, and these plates have been green tagged. The Department concurs that Non-Conformance ZPMC-0182 is closed.

Submitted by: Wright, Doug

Date: 25-May-2009

Attachment(s):

No. B-344

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2009-5-8

REGARDING: NCR-000204（ZPMC-0182）

With this letter of response, ZPMC requests closure for caltrans **NCR-000204（ZPMC-0182）**.As the response form the caltrans' comments that we additional provide the more documentation to close the non-conformance report. All of the error occurred on the doubler plate to skin plate, and all the reports we submitted in the last time and today should be can make enough coverage for each fabrication.

So ZPMC applies to close **NCR-000204（ZPMC-0182）**.

Please reference attached documentation for acceptance and closure the **NCR-000204（ZPMC-0182）.**

ATTACHMENT:
NCR-000204（ZPMC-0182）
The final VT/MT inspection for the first lifting skin A/E

Zhao Shuangbao

2009. 5. 8.

AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV
P.O. BOX 23223 Oakland CA 94623
Phone (510) 419-0120 / Fax (510) 839-0666

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000175

Subject: NCR No. ZPMC-0182

Dated: 28-Oct-2008
Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9
Job Name: SAS Superstructure
Document No.: ABF-NPR-000176 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: An RFI for resolution was submitted to CT and rejected. ZPMC and ABF are currenlly trying to resolve this issue. All remaining doubler plates will be installed correctly.

An error occurred during the fabrication of the doubler plate to skin plate. The doubler plates were hand fit to the size of the hole and not off the centerline of the lower skin plate. An RFI for resolution was submitted to CT and rejected. ZPMC and ABF are currently trying to resolve this issue. All remaining doubler plates will be installed correctly.

Submitted by:

Attachment(s): ABF-NPR-000176R00

Caltrans' comments:

Status: AAP
Date: 02-Nov-2008

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

RFI 1539 regarding this issue was not approved, and asked that a repair procedure which provides an equivalent weld size to the original detail be submitted. After the issue is resolved, please provide documentation of welds performed, and that the welds in question are acceptable. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0182 at that time.

Submitted by: Wright, Doug

Date: 02-Nov-2008

Attachment(s):

182

TVT 3/28

ZPMC

周数 6#

日期 2009.03.

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号	04-0120F4	Girder/梁:	frist lifting
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	Tower/塔:	Tower(s) skin A
Project No.: 项目编号:	ZP06-787	Quality Control Representative: 质检代表:	Liu Jinhua
		CWI: 检验员:	Liu Yong Ao 2177
		Quality Assurance Manager ~Approval 质量控制经理:	Hua Hong

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
SSD1-SA15F/F-1	056134	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA15F/F-2	056134	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA15F/F-3	057286	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA15F/F-4	057286	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA15F/F-5	057286	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

FV7372

ZPMC

周数 60#

日期 2009.03.08

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号	04-0120F4	Girder/梁:	frist lifting
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	Tower/塔:	Tower(s) skin A
Project No.: 项目编号:	ZP06-787	Quality Control Representative: 质检代表:	LuJinhua
		CWI: 检验员:	liufang 07021721
		Quality Assurance Manager ~Approval 质量控制经理:	Hua

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
SSD1-SA159A/J-2	057194	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159A/J-3	057194	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159A/J-4	067877	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159A/J-5	067877	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159A/J-1	067877	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

" / " is no defects " X " is defects "NA" is not applicable

下UT3726

ZPMC

周数 60#

日期 2009.03.[illegible]

Visual Weld Inspection Report
焊缝目视检查报告

		Girder/梁:	frist lifting
		Tower/塔:	Tower(s) skin A
Caltrans Contract No. 加州合同编号	04-0120F4	Quality Control Representative: 质检代表:	LuJianhua
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	CWI: 检验员:	Linyong ufo21724
Project No.: 项目编号:	ZP06-787	Quality Assurance Manager ~Approval 质量控制经理:	Hubq

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
SSD1-SA159A/J-6	040457	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159A/J-7	040457	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159A/J-8	048378	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159A/J-9	048378.	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159A/J-10	048378	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

"√" is defects "X" is defects "N/A" is not applicable

FUT375

ZPMC

		周数	60#
		日期	2009. 03. 03

Visual Weld Inspection Report **焊缝目视检查报告**		***Girder/ 梁:***	frist lifting
		Tower/ 塔:	Tower(s) skin A
Caltrans Contract No. 加州合同编号	04-0120F4	Quality Control Representative: 质检代表:	LuJinhua
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	CWI: 检验员:	fangfang sh021724
Project No.: 项目编号:	ZP06-787	Quality Assurance Manager ~Approval 质量控制经理:	Hugo

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
SSD1-SA159B/J-1	056144	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-3	056144	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-4	066673	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-5	066673	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-2	066673	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld
☐ After CWR or WRR No. :
☑ After cover pass
☐ After HSR No. :
☐ Others :

#R787-QCP-603

" / " is no defects " X " is defects "NA" is not applicable

FV737W

ZPMC

周数 60#

日期 2009.03.[illegible]

Visual Weld Inspection Report
焊缝目视检查报告

Girder/梁:	frist lifting
Tower/塔:	Tower(s) skin A
Caltrans Contract No. 加州合同编号	04-0120F4
Quality Control Representative: 质检代表:	LuJinhua
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥
CWI: 检验员:	Jinfeng 05.21.21
Project No.: 项目编号:	ZP06-787
Quality Assurance Manager ~Approval 质量控制经理:	Hubo

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
SSD1-SA159B/J-7	040431	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-8	040431	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-9	052590	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-10	052590	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-6	052590	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

PVT3723

ZPMC

周数 6#

日期 2009. 03. 02

Visual Weld Inspection Report
焊缝目视检查报告

		Girder/梁:	frist lifting
		Tower/塔:	Tower(s) skin A
Caltrans Contract No. 加州合同编号	04-0120F4	Quality Control Representative: 质检代表:	LuJianhua
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	CWI: 检验员:	Lingfang 06217
Project No.: 项目编号:	ZP06-787	Quality Assurance Manager ~Approval 质量控制经理:	Hugh

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
SSD1-SA159B/J-16	048784	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-17	048784	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-18	053474	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-19	053474	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1-SA159B/J-20	053474	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
												4	

☐ After root weld

☑ After cover pass

☐ After CWR or WRR No.:

☐ After HSR No.:

☐ Others

#R787-QCP-603

" √ " 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 T787-MT-2970	DATE日期 2009.03.14	PAGE OF页码 1/3	Revision No: 0

PROJECT NO. 工程编号:	ZP06-787	CONTRACTOR: 用 户:	CALTRANS
DRAWING NO. 图号:	SSD1-SA159B/J(A/J),SSD1-SA15F/F THE 1ST LIFT TOWER(S) SKIN A	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 ,2009
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z A709M-HPS-485WT2-Z 90/70/50mm
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			
SSD1-SA159B/J-16				ACC.		100%MT
SSD1-SA159B/J-17				ACC.		100%MT
SSD1-SA159B/J-18				ACC.		100%MT
SSD1-SA159B/J-19				ACC.		100%MT
SSD1-SA159B/J-20				ACC.		100%MT
SSD1-SA15F/F-1				ACC.		100%MT
SSD1-SA15F/F-2				ACC.		100%MT
SSD1-SA15F/F-3				ACC.		100%MT
SSD1-SA15F/F-4				ACC.		100%MT
SSD1-SA15F/F-5				ACC.		100%MT
SSD1-SA159A/J-1				ACC.		100%MT
SSD1-SA159A/J-2				ACC.		100%MT
SSD1-SA159A/J-3				ACC.		100%MT
SSD1-SA159A/J-4				ACC.		100%MT

EXAMINED BY主探	REVIEWED BY 审核
Xu Hai LEVEL - II SIGN 签名 / DATE日期 09.3.14	Yuan Tao LEVEL-II SIGN / DATE日期 09.3.14
质量经理 / QCM Lu Jianhua 09.03.18 签字 SIGN / 日期 DATE	用户CUSTOMER 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 T787-MT-2970	DATE日期 2009.03.14	PAGE OF页码 2/2	Revision No: 0

PROJECT NO. 工程编号:	ZP06-787	CONTRACTOR: 用 户:	CALTRANS
DRAWING NO. 图号:	SSD1-SA159B/J(A/J),SSD1-SA15F/F THE 1ST LIFT TOWER(S) SKIN A	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 ,2009
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z A709M-HPS-485WT2-Z 90/70/50mm
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			
SSD1-SA159A/J-5				ACC.		100%MT
SSD1-SA159A/J-6				ACC.		100%MT
SSD1-SA159A/J-7				ACC.		100%MT
SSD1-SA159A/J-8				ACC.		100%MT
SSD1-SA159A/J-9				ACC.		100%MT
SSD1-SA159A/J-10				ACC.		100%MT
SSD1-SA159B/J-1				ACC.		100%MT
SSD1-SA159B/J-2				ACC.		100%MT
SSD1-SA159B/J-3				ACC.		100%MT
SSD1-SA159B/J-4				ACC.		100%MT
SSD1-SA159B/J-5				ACC.		100%MT
SSD1-SA159B/J-6				ACC.		100%MT
SSD1-SA159B/J-7				ACC.		100%MT
SSD1-SA159B/J-8				ACC.		100%MT

EXAMINED BY主探	REVIEWED BY 审核
Xu Hai LEVEL - II SIGN 签名 / DATE日期 09.3.14	Yuan Tao LEVEL-II SIGN / DATE日期 09.3.14
质量经理 / QCM Lu Jianhua 2009.03.18 签字 SIGN / 日期 DATE	用户CUSTOMER 签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 T787-MT-2970	DATE日期 2009.03.14	PAGE OF页码 3/3	Revision No: 0

PROJECT NO. 工程编号:	ZP06-787	CONTRACTOR: 用 户:	CALTRANS
DRAWING NO. 图号:	SSD1-SA159B/J(A/J),SSD1-SA15F/F THE 1ST LIFT TOWER(S) SKIN A	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 ,2009
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z A709M-HPS-485WT2-Z 90/70/50mm
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			
SSD1-SA159B/J-9				ACC.		100%MT
SSD1-SA159B/J-10				ACC.		100%MT
SSD1-SA159B/J-11				ACC.		100%MT
SSD1-SA159B/J-12				ACC.		100%MT
SSD1-SA159B/J-13				ACC.		100%MT
SSD1-SA159B/J-14				ACC.		100%MT
SSD1-SA159B/J-15				ACC.		100%MT
BLANK						

EXAMINED BY主探 XuMai LEVEL - II SIGN 签名 / DATE日期 09.3.14	REVIEWED BY 审核 DanTao LEVEL-II SIGN / DATE日期 09.3.16
质量经理 / QCM LuJianhua 09.03.18 签字 SIGN / 日期 DATE	用户CUSTOMER 签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

F-VT 1370

ZPMC

周数 40#

日期 2008.10.15

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号	04-0120F4	Girder/梁:	First lifting
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	Tower/塔:	Tower (S) Skin E
Project No.: 项目编号:	ZP06-787	Quality Control Representative: 质检代表:	Li Xiuyang
		CWI: 检验员:	Liu Yang 080217 Z4
		Quality Assurance Manager ~Approval 质量控制经理:	Huhang

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
SSD1--SA173B/K-4	066763	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

T-VT 1369

ZPMC

周数	40#
日期	2008.10.15

Visual Weld Inspection Report
焊缝目视检查报告

Girder/梁:	First lifting		
Tower/塔:	Tower (S) Skin E		
Caltrans Contract No. 加州合同编号	04-0120F4	Quality Control Representative: 质检代表:	Li Xiuyang
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	CWI: 检验员:	Lin Yong 08021121
Project No.: 项目编号:	ZP06-787	Quality Assurance Manager ~Approval 质量控制经理:	HuGang

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
SSD1--SA173B/K-1	066763	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

T-VT 1368

ZPMC

周数	40#
日期	2008.10.15

Visual Weld Inspection Report
焊缝目视检查报告

		Girder/梁:	First lifting
		Tower/塔:	Tower (S) Skin E
Caltrans Contract No. 加州合同编号	04-0120F4	Quality Control Representative: 质检代表:	人: Xiuyang
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	CWI: 检验员:	Lin Yang 08.10.21
Project No.: 项目编号:	ZP06-787	Quality Assurance Manager ~Approval 质量控制经理:	HuGang

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
SSD1--SA173A/K-12	066236	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld
☑ After cover pass
☐ After CWR or WRR No.:
☐ After HSR No.:
☐ Others

#R787-QCP-603

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

CV1-1367

ZPMC

周数	40#
日期	2008.10.15

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号	04-0120F4	Girder/梁:	First lifting
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	Tower/塔:	Tower (S) Skin E
Project No.: 项目编号:	ZP06-787	Quality Control Representative: 质检代表:	Li Zhiyong
		CWI: 检验员:	Zhu Yongfu 2008.10.24
		Quality Assurance Manager ~Approval 质量控制经理:	HuGang

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
SSD1--SA173A/K-11	066236	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

1-VT-1366

ZPMC

周数 40#

日期 2008.10.15

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号	04-0120F4	Girder/梁:	First lifting
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	Tower/塔:	Tower (S) Skin E
Project No.: 项目编号:	ZP06-787	Quality Control Representative: 质检代表:	Li Xiuyong
		CWI: 检验员:	Liu Yong wf50717-21
		Quality Assurance Manager ~Approval 质量控制经理:	HuGang

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
SSD1--SA173A/K-10	067877	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

T-N1-1503

ZPMC

周数	40#
日期	2008.10.15

Visual Weld Inspection Report **焊缝目视检查报告**		**Girder/梁:**	First lifting
		Tower/塔:	Tower (S) Skin E
Caltrans Contract No. 加州合同编号	04-0120F4	Quality Control Representative: 质检代表:	Li Xinfang
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	CWI: 检验员:	Lin Yong 05021721
Project No.: 项目编号:	ZP06-787	Quality Assurance Manager ~Approval 质量控制经理:	HuGang

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
SSD1--SA173A/K-9	048378	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

T-VT-1364

ZPMC

周数 40#

日期 2008.10.15

Visual Weld Inspection Report
焊缝目视检查报告

Caltrans Contract No. 加州合同编号	04-0120F4	Girder/梁:	First lifting
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	Tower/塔:	Tower (S) Skin E
Project No.: 项目编号:	ZP06-787	Quality Control Representative: 质检代表:	L: Xinyang
		CWI: 检验员:	lin yang 2008.10.21
		Quality Assurance Manager ~Approval 质量控制经理:	HuGang

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
SSD1--SA16A/G-38	048378	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

T-VT1363

ZPMC

周数	40#
日期	2008.10.15

Visual Weld Inspection Report 焊缝目视检查报告		Girder/梁:	First lifting
		Tower/塔:	Tower (S) Skin E
Caltrans Contract No. 加州合同编号	04-0120F4	Quality Control Representative: 质检代表:	Li Xiuyang
Project No.: 项目名称	San Francisco Oakland Bay Bridge 美国海湾大桥	CWI: 检验员:	LiXiuyang 07120711
Project No.: 项目编号:	ZP06-787	Quality Assurance Manager ~Approval 质量控制经理:	HuGang

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
SSD1—SA16A/G-15	048378	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA
SSD1—SA16A/G-16	048378	2G	K-71TSR	√	√	√	√	√	√	√	ACC	NA	NA

☐ After root weld ☑ After cover pass

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

#R787-QCP-603

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

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-1085	DATE日期 2008.10.15	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:	SSD1-SA173B/K THE 1ST LIFT SKIN E	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 ,2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z/ A709M-HPS-485WT2-Z 75/50mm
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			
SSD1-SA173B/K-4				ACC.		
BLANK						

EXAMINED BY主检

Wang Wei

LEVEL - II SIGN 签名 / DATE日期 08.10.15

REVIEWED BY 审核

Cai Xinxin

LEVEL-II SIGN / DATE日期 08.10.15

质量经理 / QCM

HuGang

签字 SIGN / 日期 DATE

用户CUSTOMER

10.22

签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-1084	DATE日期 2008.10.15	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:	SSD1-SA173B/K THE 1ST LIFT SKIN E	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 ,2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z/ A709M-HPS-485WT2-Z 75/50mm
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			
SSD1-SA173B/K-1				ACC.		
BLANK						

EXAMINED BY主检	REVIEWED BY 审核
Wang Wei LEVEL - II SIGN 签名 / DATE日期 08.10.15	Cai Xinxin LEVEL-II SIGN / DATE日期 08.10.15
质量经理 / QCM Huabeng 签字 SIGN / 日期 DATE	用户CUSTOMER 10.22 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 T787-MT-1083	DATE日期 2008.10.15	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:	SSD1-SA173A/K THE 1ST LIFT SKIN E	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 ,2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z/ A709M-HPS-485WT2-Z 75/50mm
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			
SSD1-SA173A/K-12				ACC.		
BLANK						

EXAMINED BY主探
Wang Wei
LEVEL - II SIGN 签名 / DATE日期 08.10.15

REVIEWED BY 审核
Cai Xinxin
LEVEL-II SIGN / DATE日期 08-10.15

质量经理 / QCM
Hubiang
签字 SIGN / 日期 DATE

用户CUSTOMER
10.22
签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-1082	DATE日期 2008.10.15	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:	SSD1-SA173A/K THE 1ST LIFT SKIN E	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 ,2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z/ A709M-HPS-485WT2-Z 75/50mm
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			
SSD1-SA173A/K-11				ACC.		
BLANK						

EXAMINED BY主探
Wang Wei
LEVEL - II SIGN 签名 / DATE日期 08.10.15

REVIEWED BY 审核
Cai Xinxin
LEVEL-II SIGN / DATE日期 08.10.15

质量经理 / QCM
Hu Gang
签字 SIGN / 日期 DATE

用户CUSTOMER
10.22
签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-1081	DATE日期 2008.10.15	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:	SSD1-SA173A/K THE 1ST LIFT SKIN E	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 ,2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z/ A709M-HPS-485WT2-Z 60/50mm
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			
SSD1-SA173A/K-10				ACC.		
BLANK						

EXAMINED BY主探 Wang Wei LEVEL - II SIGN 签名 / DATE日期 08.10.15	REVIEWED BY 审核 Cai Xinxin LEVEL-II SIGN / DATE日期 08.10.15
质量经理 / QCM Hubang 签字 SIGN / 日期 DATE	用户CUSTOMER Carr 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 T787-MT-1080	DATE日期 2008.10.15	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:	SSD1-SA16A/G THE 1ST LIFT SKIN E	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 ,2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z/ A709M-HPS-485WT2-Z 60/50mm
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			
SSD1-SA173A/K-9				ACC.		
BLANK						

EXAMINED BY主检
Wang Wei
LEVEL - II SIGN 签名 / DATE日期 08.10.15

REVIEWED BY 审核
Cai Xinxin
LEVEL-II SIGN / DATE日期 08.10.15

质量经理 / QCM
Huhang
签字 SIGN / 日期 DATE

用户CUSTOMER
10.22
签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-1079	DATE日期 2008.10.15	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: SSD1-SA16A/G THE 1ST LIFT SKIN E		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 ,2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z/ A709M-HPS-485WT2-Z 60/50mm
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			
SSD1-SA16A/G-38				ACC.		
BLANK						

EXAMINED BY主探

Wang Wei

LEVEL - II SIGN 签名 / DATE日期 08.10.15

REVIEWED BY 审核

Cai Xinxin

LEVEL-II SIGN / DATE日期 08.10.17

质量经理 / QCM

Hubang

签字 SIGN / 日期 DATE

用户CUSTOMER

10.22

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 T787-MT-1078	DATE日期 2008.10.15	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:	SSD1-SA16A/G THE 1ST LIFT SKIN E	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 ,2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5620 5395 5617
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-Z/ A709M-HPS-485WT2-Z 60/50mm
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			
SSD1-SA16A/G-15				ACC.		
SSD1-SA16A/G-16				ACC.		
BLANK						

EXAMINED BY主责 Wang Wei LEVEL - II SIGN 签名 / DATE日期 08.10.15	REVIEWED BY 审核 Cai Xinxin LEVEL-II SIGN / DATE日期 08.10.15
质量经理 / QCM Huang 签字 SIGN / 日期 DATE	用户CUSTOMER 10.22 签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

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 #: xx.25A

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

Location: Changxing Island, Shanghai, PRC **Report No:** NCS-000152
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 07-Jan-2009
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0182

Type of problem:

Welding	☑	**Concrete**	☐	**Other**	☐	
Welding	☑	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☐	**Component:**
Procedural	☐	**Procedural**	☐	**Descripton:**		

Date the Non-Conformance Report was written: 09-Oct-2008

Description of Non-Conformance:
On Lift 1, South Tower, Skin Plate E there are two locations where the root face of the doubler plate to skin plate does not allow for the detailed 8mm fillet weld. The detailed root face requires 10mm and the as built condition is as small as 6mm. This condition also exists at various locations on Lift 1, South Tower, Skin Plate A, East Tower, Skins A and E.

Contractor's proposal to correct the problem:
ABF/ZPMC has submitted ABF-RFI001539R00 "The south and east shafts doubler plates for Lift 1 on both A and E skin were fit up using AE line as a reference. This created a (max) 5mm offset of the center line doubler plate penetration to the skin plate penetration. Reference the attached sketch for the Current detail. Please note that the detail shown represents the worst case offset and that all penetrations on a given doubler plate have similar offsets. ZPMC has issued an internal NCR and will lay out future doubler plates based on the center lines of penetrations to avoid this problem in the future. Please confirm if the current detail is acceptable for the doubler plates which have been welded on Lift 1 South and East Shafts."

Corrective action taken:
ABF-RFI-001539R00 was submitted for resolution and the proposed 5mm fillet weld was rejected. A request was issued to provide details for a repair procedure that provides an equivalent weld size to the original detail. ZPMC has submitted FCN 113A which adds a PJP weld detail where the 8mm fillet weld cannot be achieved.

Did corrective action require Engineer's approval? ☑ **Yes** ☐ **No**
If so, name of Engineer providing approval: Joshua Ishibashi **Date:** 01-Dec-2008
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 Serge Sinevod, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By:	Sinevod,Serge	Quality Assurance Inspector
Reviewed By:	Wahbeh,Mazen	QA Reviewer