

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-000951**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Dec-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0910**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Tower Suspender Bracket
Procedural	Procedural	Description:	

Reference Description: One Longitudinal Indication found in Tower Suspender Bracket**Description of Non-Conformance:**

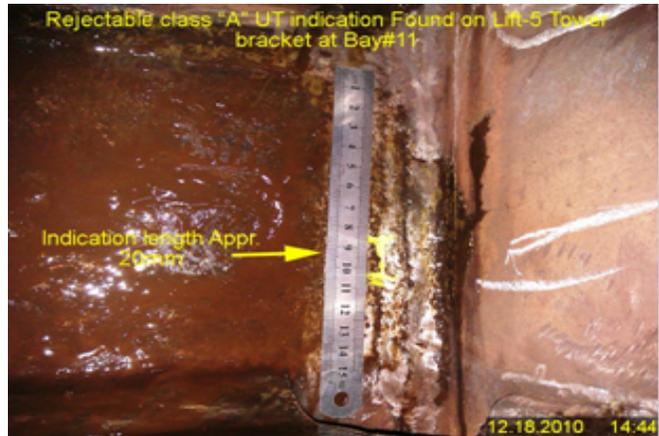
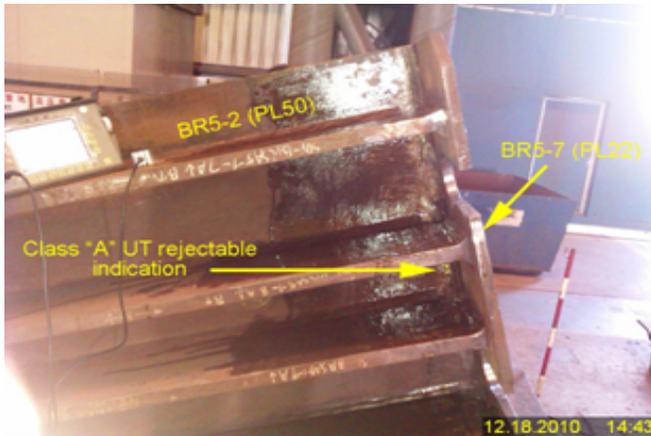
During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Tower Lift-5 Bracket at Bay#11, this Quality Assurance Inspector (QA) discovered the following issues:

- One longitudinal linear Class "A" rejectable indication measuring approximately 20mm in length.
- The indication dbS rating is a +3.
- Material thickness is 50mm.
- The depth of the indication is approximately 28mm.
- The weld is identified as SD1-BRSA5-1-19.
- The weld is Complete Joint Penetration (CJP) "T" joint joining Web BR5-2(PL50) to flange BR5-7(PL22).
- The indication is clearly marked on or near the weld.
- The Y distance for this indication is 570 mm from edge of the bracket.
- The tower bracket is located at Bay#11.

The Notice of Witness Inspection (NWIT) No. is 07818. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of 4dbs and under for material thicknesses 38mm through 60mm.

Special Provisions Section 8.3; "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

Who discovered the problem: Subhasis Bera

Name of individual from Contractor notified: Xing Xiao Guang

Time and method of notification: 1500 hours, 12-18-10, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 0800 hours, 12/20/10, email

QC Inspector's Name: Xu Le Feng

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, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Ng, Michael

QA Inspector

Reviewed By: Devey, Jim

SMR



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

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 20-Dec-2010

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: 05.03.06-000906

Subject: NCR No. ZPMC-0910

Reference Description: One Longitudinal Indication found in Tower Suspender Bracket

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:** 05

Remarks:

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Tower Lift-5 Bracket at Bay#11, this Quality Assurance Inspector (QA) discovered the following issues:

- One longitudinal linear Class "A" rejectable indication measuring approximately 20mm in length.
- The indication dbS rating is a +3.
- Material thickness is 50mm.
- The depth of the indication is approximately 28mm.
- The weld is identified as SD1-BRSA5-1-19.
- The weld is Complete Joint Penetration (CJP) "T" joint joining Web BR5-2(PL50) to flange BR5-7(PL22).
- The indication is clearly marked on or near the weld.
- The Y distance for this indication is 570 mm from edge of the bracket.
- The tower bracket is located at Bay#11.

The Notice of Witness Inspection (NWIT) No. is 07818. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

Action Required and/or Action Taken:

Propose a resolution for this non-conformance and provide documentation that the deficiency has been brought into compliance with the contract requirements. Propose a resolution that addresses the apparent failure of Quality Control to identify the indication. Additionally, provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

NCT

(Continued Page 2 of 2)

Transmitted by: Sean Eagen Transportation Engineer

Attachments: ZPMC-0910

cc: Rick Morrow, Peter Siegenthaler, Brian Boal, Mark Woods, Contract Files, Ching Chao, Bill Casey

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000906

Subject: NCR No. ZPMC-0910

Dated: 10-Jan-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000899 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: "In addition to ZPMC's comments, ABFJV has noted which inspector missed the indication so that the inspector can receive additional training.

"In addition to ZPMC's comments, ABFJV has noted which inspector missed the indication so that the inspector can receive additional training. Based on this ZPMC requests closure of this NCR."

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000899R00;

Caltrans' comments:

Status: CLO

Date: 10-Jan-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0910 is closed.

Submitted by: Eagen, Sean

Date: 10-Jan-2011

Attachment(s):



No. T-185

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2011-01-10

REGARDING: NCR-000951(ZPMC-910)

ZPMC received NCR-000951(ZPMC-910), it mentioned that CT inspectors found UT indication on saddle support, +3db/approximately 20mm in length.

ZPMC take a positive repairing work on this weld. And now this component has been green tagged.

Here we provide relative reports, hope CT could take review and close this NCR.

ATTACHMENT:

NCR-000951(ZPMC-910)

T-WR3781 R0

T787-UT-3315R1

T787-MT-12352

Zhao jia neng .
2011.01.10 .



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

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR. A JV
375 BURMA ROAD
OAKLAND CA 95607
Date: 20-Dec-2010
Contract No: 04-0120F4
04-SF-80-13.2 / 13.9
Job Name: SAS Superstructure
Document No: 05.03.06-000906
Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0910

Reference Description: One Longitudinal Indication found in Tower Suspender Bracket

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: 05

Remarks:

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Tower Lift-5 Bracket at Bay#11, this Quality Assurance Inspector (QA) discovered the following issues:

- One longitudinal linear Class "A" rejectable indication measuring approximately 20mm in length.
- The indication dbS rating is a +3.
- Material thickness is 50mm.
- The depth of the indication is approximately 28mm.
- The weld is identified as SD1-BRSA5-1-19.
- The weld is Complete Joint Penetration (CJP) "T" joint joining Web BR5-2(PL50) to flange BR5-7(PL22).
- The indication is clearly marked on or near the weld.
- The Y distance for this indication is 570 mm from edge of the bracket.
- The tower bracket is located at Bay#11.

The Notice of Witness Inspection (NWIT) No. is 07818. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

Action Required and/or Action Taken:

Propose a resolution for this non-conformance and provide documentation that the deficiency has been brought into compliance with the contract requirements. Propose a resolution that addresses the apparent failure of Quality Control to identify the indication. Additionally, provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

NCT

(Continued Page 2 of 2)

Transmitted by: Sean Eagen Transportation Engineer

Attachments: ZPMC-0910

cc: Rick Morrow, Peter Siegenthaler, Brian Boal, Mark Woods, Contract Files, Ching Chao, Bill Casey

File: 05.03.06

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4City: 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-000951

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 18-Dec-2010

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

NCR #: ZPMC-0910

Type of problem:Welding Concrete Other Welding Curing Procedural

Bridge No: 34-0006

Joint fit-up Coating Other

Component: Tower Suspender Bracket

Procedural Procedural Description:

Reference Description: One Longitudinal Indication found in Tower Suspender Bracket

Description of Non-Conformance:

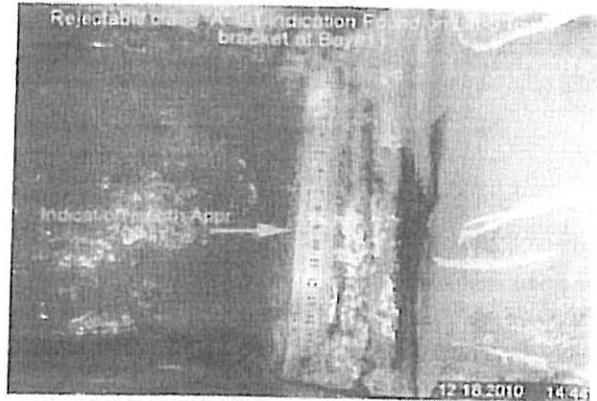
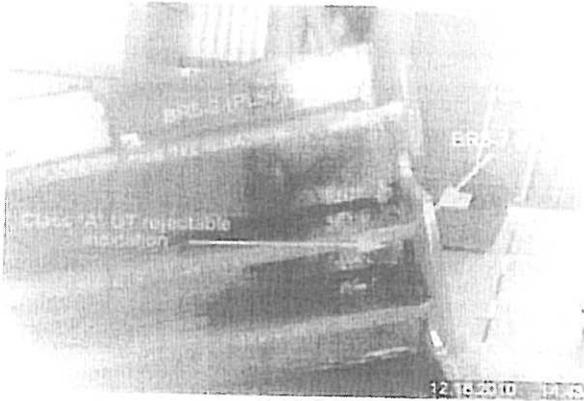
During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Tower Lift-5 Bracket at Bay#11, this Quality Assurance Inspector (QA) discovered the following issues:

- One longitudinal linear Class "A" rejectable indication measuring approximately 20mm in length.
- The indication dbS rating is a +3.
- Material thickness is 50mm.
- The depth of the indication is approximately 28mm.
- The weld is identified as SD1-BRSA5-1-19.
- The weld is Complete Joint Penetration (CJP) "T" joint joining Web BR5-2(PL50) to flange BR5-7(PL22).
- The indication is clearly marked on or near the weld.
- The Y distance for this indication is 570 mm from edge of the bracket.
- The tower bracket is located at Bay#11.

The Notice of Witness Inspection (NWIT) No. is 07818. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of 4dbs and under for material thicknesses 38mm through 60mm.

Special Provisions Section 8.3; "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

Who discovered the problem: Subhasis Bera

Name of individual from Contractor notified: Xing Xiao Guang

Time and method of notification: 1500 hours, 12-18-10, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 0800 hours, 12/20/10, email

QC Inspector's Name: Xu Le Feng

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, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Ng, Michael

QA Inspector

Reviewed By: Devey, Jim

SMR



焊缝返修报告

版本 Rev. No.

Welding Repair Report

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	<u>SD1-BRSA5-1</u>	报告编号 Report No.	T-WR3781
合同号 Contract No.:	04-0120F4	部件名称 Items Name	<u>FIFTH LIFTING TOW</u> <u>ER(S)</u>	NDT报告编号 Report No. of NDT	T787-UT-3315
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述：(普通UT探伤发现的缺陷长度小于最大允许长度)
(Description of welding discontinuity)

Weld No. 焊缝编号为：SD1-BRSA5-1-19A/B

Welder ID No. (焊工编号)：054460

Position:(位置)：2G

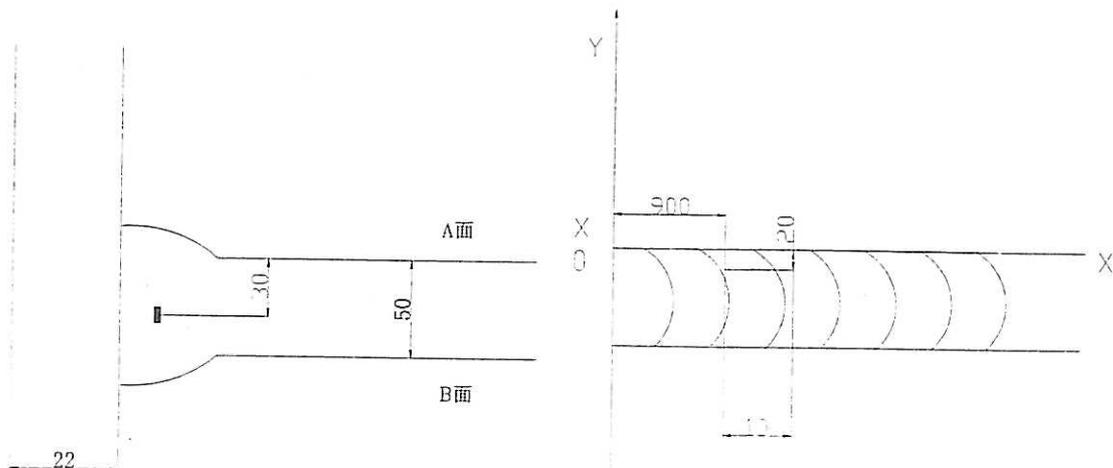
检验员 (Inspector)：

Xu Ronggang

日期(Date)：2010.12.21

焊缝返修位置示意图：

Draft of welding discontinuity:



WELD NUMBER: SD1-BRSA5-1-19A/B

产生原因:

Caused:

1、焊道未及时处理干净。

1. Did not clear the weld pass completely in time.

车间负责人(Foreman): *Lu Yefeng* 日期(Date): 2010.12.21

处理意见

Disposition :

1. 准备一个正确的接头形式，具体参见返修的WPS;
2. 按照焊接返修工艺规程（WPS）打磨或碳刨缺陷区域至光滑;
3. 如果仍发现有缺陷，通过打磨的方法去除所有缺陷以确认缺陷完全被清除;
4. 根据批准的焊接返修工艺规程（WPS）进行预热及焊接;
5. 将焊接区域打磨至与母材平齐;
6. 对返修区域作NDT检测。

1. Prepare the joint according to the approved WPS.
2. Grind or gouge the repair area to a smooth finish according to the approved repair WPS.
3. Remove all defects by grinding to ensure all defects are completely removed if defects still exist.
4. Preheat and weld according to the approved WPS.
5. Grind the weld flush after welding.
6. Perform NDT of the repair area.

工艺: *Lu Yefeng*
Technical engineer

审核: *Lu Jianhua*
Approved by

日期 2010.12.21
Date



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	SD1-BRSA5-1	报告编号 Report No.	T-WR3781
合同号 Contract No.:	04-0120F4	部件名称 Items Name	FIFTH LIFTING TOW ER(S)	NDT报告编号 Report No.of NDT	T787-UT-3315
项目编号 Project No.:	ZP06-787				

纠正措施:

Correction action to prevent re occurrence:

1. 加强焊接监控和道间清理。

1. Improve monitoring of welding and interpass cleaning.

车间负责人(Foreman): *W. Trefeng* 日期(Date) 2010.12.21参照的WPS编号
Repair WPS No.

- WPS-345-SMAW-1G(1F)- Repair
- WPS-345-FCAW-1G(1F)- Repair-1
- WPS-345-SMAW-2G(2F)-Repair
- WPS-345-FCAW-2G(2F)-Repair-1
- WPS-345-SMAW-3G(3F)- Repair
- WPS-345-SMAW-4G(4F)- Repair
- WPS-345-SMAW-1G(1F)-FCM-Repair
- WPS-345-SMAW-2G(2F)-FCM-Repair
- WPS-345-SMAW-3G(3F)-FCM-Repair
- WPS-345-SMAW-4G(4F)-FCM-Repair
- 其他

工艺员
technologist*W. Trefeng*

返修(碳刨)前预热温度 Preheat temperature before gouging	65°C	返修的缺陷 Description of discontinuity	夹渣
焊前处理检查 Inspection before welding	Acc	焊前预热温度 Preheat temperature before welding	180°C
最大碳刨深度 Max. depth of gouging	25mm	碳刨总长 Total length of gouging	80mm
焊工 welder 202338	焊接类型 welding type SMAW	焊接位置 position	3E
焊接电流 Current 165A	焊接电压 Voltage 25.1V	焊接速度 Speed	82mm/min.

**返修后检查
Inspection After repairing:**

外观检查 VT result Acc	检验员 Inspector Xu Le Feng	日期 Date 20/12/21
NDT复检 NDT result <i>[Signature]</i>	探伤员 NDT person Dai Guangsheng	日期 Date 2010.12.23

见证:
Witness/Review:备注:
Remark:



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 T787-UT-3315R1 DATE 2010.12.23 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: FIFTH LIFTING TOWER(S) DRAWING NO.: SD1-BRSA5-1 CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范 ACCEPTANCE STANDARD 接受标准 PROCEDURE NO. 程序编号
 AWS D1.5-2002 AWS D1.5-2002(Table 6.3) ZPQC-UT-01

WELDING PROCESS 焊接方法 JOINT TYPE 焊缝类型 CALIBRATION DUE DATE 仪器校正有效期
 SMAW T-JOINT Dec. 28ST, 2010

EQUIPMENT 设备 MANUFACTURER 制造商 MODEL NO. 样式编号 SERIAL NO. 序列编号
 UT SCOPE AMERICA EPOCH-4B 071565311

CALIBRATION BLOCK 试块 COUPLANT 耦合剂 MATERIAL/THICKNESS 材料厚度
 AWS IIV BLOCK TYPE II C.M.C A709M-GPS485WT2-Z 22/50mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
AMERICA	70°	2.25MHz	0.75×0.625in	AMERICA	60°	2.25MHz	0.75×0.625in
Changchao	0°	2.5MHz	20mm				

Reference Level 参考灵敏度 20dB

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
									a	b	c	d	Length 长度			Sound Path 声程
SD1-BRSA5-1-19A/B	1R1	70				40									ACC.	100%
		60				35									ACC.	100%
		0	C			20									ACC.	100%
BLANK																

EXAMINED BY 主探 *Guangsheng* REVIEWED BY 审核 *Ku Donggang*

LEVEL - II SIGN / DATE *2010.12.23* LEVEL - II SIGN / DATE *2010.12.23*

质量经理 / QCM *Lu Jianhua* 用户CUSTOMER

签字 SIGN / 日期 DATE *2010.12.23* 签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-12352		DATE日期 2010.12.31	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: SD1-BRSA5-1 FIFTH LIFTING		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 ST , 2011	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 da400S	SERIAL NO. 连续编号 17371	
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-HPS485WT2-Z 22/35/50mm	
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			
SD1-BRSA5-1-2A				ACC.		100%MT
SD1-BRSA5-1-2B				ACC.		100%MT
SD1-BRSA5-1-3A				ACC.		100%MT
SD1-BRSA5-1-3B				ACC.		100%MT
SD1-BRSA5-1-4A				ACC.		100%MT
SD1-BRSA5-1-4B				ACC.		100%MT
SD1-BRSA5-1-5A				ACC.		100%MT
SD1-BRSA5-1-5B				ACC.		100%MT
SD1-BRSA5-1-19A				ACC.		100%MT
SD1-BRSA5-1-19B				ACC.		100%MT
SD1-BRSA5-1-15A				ACC.		100%MT
SD1-BRSA5-1-15B				ACC.		100%MT
SD1-BRSA5-1-16A				ACC.		100%MT
SD1-BRSA5-1-16B				ACC.		100%MT

EXAMINED BY 主操 Fu Zhi qing <i>Fu Zhi Qiang</i>	REVIEWED BY 审核 <i>Wang Wei</i>
LEVEL - II SIGN 签名 / DATE日期 2010.12.31	LEVEL-II SIGN / DATE日期 2010.12.31
质量经理 / QCM <i>ding jianhua</i>	用户CUSTOMER
签字 SIGN / 日期 DATE 2010.12.31	签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-12352		DATE日期 2010.12.31	PAGE OF页码 2/3	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: SD1-BRSA5-1 FIFTH LIFTING		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 ST , 2011	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 da400S	SERIAL NO. 连续编号 17371	
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-HPS485WT2-Z 22/35/50mm	
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			
SD1-BRSA5-1-17A				ACC.		100%MT
SD1-BRSA5-1-17B				ACC.		100%MT
SD1-BRSA5-1-18A				ACC.		100%MT
SD1-BRSA5-1-18B				ACC.		100%MT
SD1-BRSA5-1-7A				ACC.		100%MT
SD1-BRSA5-1-7B				ACC.		100%MT
SD1-BRSA5-1-8A				ACC.		100%MT
SD1-BRSA5-1-8B				ACC.		100%MT
SD1-BRSA5-1-9A				ACC.		100%MT
SD1-BRSA5-1-9B				ACC.		100%MT
SD1-BRSA5-1-10A				ACC.		100%MT
SD1-BRSA5-1-10B				ACC.		100%MT
SD1-BRSA5-1-11A				ACC.		100%MT
SD1-BRSA5-1-11B				ACC.		100%MT

EXAMINED BY 主探 Fu Zhi qing <i>Fuzhiqiang</i>	REVIEWED BY 审核 <i>Wang wei</i>
LEVEL - II SIGN 签名 / DATE日期 2010.12.31	LEVEL-II SIGN <i>Wang wei</i> / DATE日期 2010.12.31
质量经理 / QCM <i>dingfanchua</i>	用户CUSTOMER
签字 SIGN / 日期 DATE 2010.12.31	签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 T787-MT-11496		DATE日期 2010.12.31	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: SD1-BRSA5-1 FIFTH LIFTING		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 ST , 2011	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 da400S	SERIAL NO. 连续编号 17371	
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-HPS485WT2-Z 22/35/50mm	
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			
SD1-BRSA5-1-12A				ACC.		100%MT
SD1-BRSA5-1-12B				ACC.		100%MT
SD1-BRSA5-1-13A				ACC.		100%MT
SD1-BRSA5-1-13B				ACC.		100%MT
SD1-BRSA5-1-14A				ACC.		100%MT
SD1-BRSA5-1-14B				ACC.		100%MT
SD1-BRSA5-1-23A				ACC.		100%MT
SD1-BRSA5-1-23B				ACC.		100%MT
SD1-BRSA5-1-22A				ACC.		100%MT
SD1-BRSA5-1-22B				ACC.		100%MT
SD1-BRSA5-1-21A				ACC.		100%MT
SD1-BRSA5-1-21B				ACC.		100%MT
SD1-BRSA5-1-20A				ACC.		100%MT
SD1-BRSA5-1-20B				ACC.		100%MT

AFTER HSR1(B)-11630

EXAMINED BY 主探 Fu Zhi qing <i>Fu Zhi qing</i>	REVIEWED BY 审核 <i>Wang net</i>
LEVEL - II SIGN 签名 / DATE日期 2010.12.31	LEVEL-II SIGN 9 DATE日期 2010.12.31
质量经理 / QCM <i>duji...</i>	用户 CUSTOMER
签字 SIGN / 日期 DATE 2010.12.31	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-000887**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 12-Jan-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0910**Type of problem:**

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

Date the Non-Conformance Report was written: 18-Dec-2010**Description of Non-Conformance:**

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Tower Lift-5 Bracket at Bay#11, this Quality Assurance Inspector (QA) discovered the following issues:

- One longitudinal linear Class "A" rejectable indication measuring approximately 20mm in length.
- The indication db rating is a +3.
- Material thickness is 50mm.
- The depth of the indication is approximately 28mm.
- The weld is identified as SD1-BRSA5-1-19.
- The weld is Complete Joint Penetration (CJP) "T" joint joining Web BR5-2(PL50) to flange BR5-7(PL22).
- The indication is clearly marked on or near the weld.
- The Y distance for this indication is 570 mm from edge of the bracket.
- The tower bracket is located at Bay#11.

The Notice of Witness Inspection (NWIT) No. is 07818. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

Contractor's proposal to correct the problem:

Contractor will repair the indication identified, and will provide NDT report to prove the weld is acceptable. Contractor will also provide an additional training to the inspector who missed the indication

Corrective action taken:

Contractor repaired the indication of the weld, and NDT reports were provided. The NDT report shows the weld is acceptable. The component was green tagged by CT. Contractor provided an additional training to the inspector who missed the indication.

Did corrective action require Engineer's approval?

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Yes No

If so, name of Engineer providing approval:

Date:

Is Engineer's approval attached? Yes No

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Devey,Jim

QA Reviewer