DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China **Report No:** NCR-000757
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 06-Jun-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0719

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☑	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☐	**Component:** OBG Crossbeam Traveler Rails
Procedural	☐	**Procedural**	☐	**Description:**		

Reference Description: ZPMC performed Heat Straightening repair on OBG Crossbeam Traveler Rails by deviating from the approved HSR

Description of Non-Conformance:

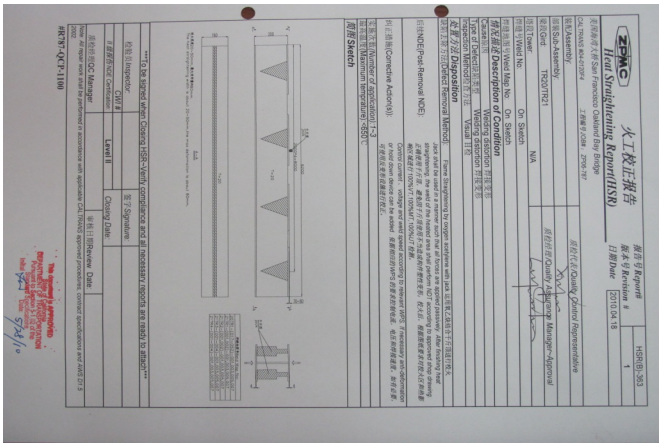
During the Quality Assurance (QA) random in-process visual inspection of Orthotropic Box Girder (OBG) Traveler Rails, this QA inspector observed that ZPMC personnel performed heat straightening of 2 traveler rails in the following ways:

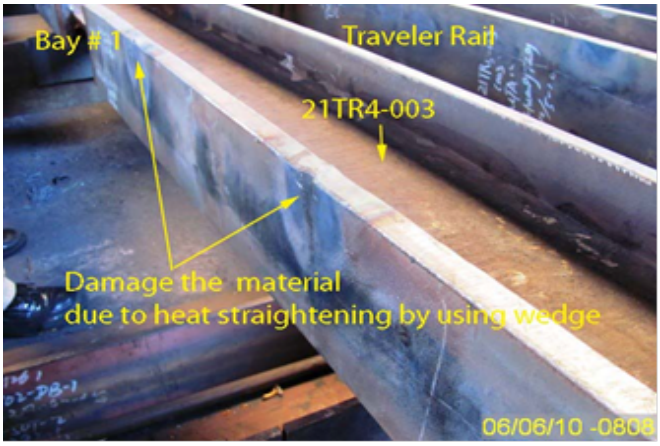
-ZPMC personnel heated the areas to be straightened and mounted a temporary fixture to the flange and drove steel wedges between the fixture and flange.
-The above procedure is not an approved heat straightening procedure as shown in HSR (B)-363, Revision 1.
-The use of the wedges is not mention in the approved HSR.
-Furthermore, after the removal of the wedges and fixture, this QA observed damages to the base material of the flanges caused by the steel wedges.
-The affected Traveler Rails are identified as: 21TR4-003, 21TR3-003.
-The material is A709 Grade 345.

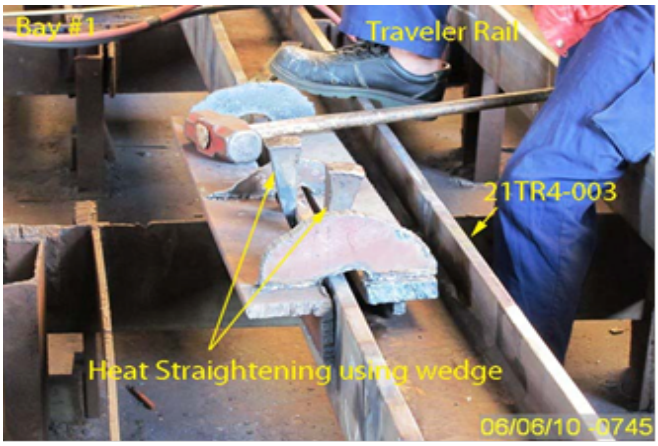
-OBG Traveler Rails are located in the Bay 1.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)







Applicable reference:
Approved Heat Straightening Report HSR (B)-363, Revision:1: “Jack shall be used in a manner such that all forces are applied passively”

Caltrans Standard Specifications July 1999, Section 55-3.02 STRAIGHTENING MATERIAL; “If straightening is necessary, it shall be done by methods acceptable to the Engineer. Details for methods proposed for straightening shall be submitted in writing to the Engineer prior to their use. After straightening, evidence of fracture or other damage will be cause for rejection of the material.”

AWS D1.5/2002 Section 3.7.3: “Members distorted by welding shall be heat straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the engineer.”
Who discovered the problem: Dhanasingh Sukanthan
Name of individual from Contractor notified: Chen Chi Wei
Time and method of notification: 0800 hours_06/06/10_Verbal
Name of Caltrans Engineer notified: Sean Eagen
Time and method of notification: 07:00 hours_06/07/10_Verbal
QC Inspector's Name: Zhang Wei
Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

☐ **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:	Tsang,Eric	SMR
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:**	07-Jun-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:**	05.03.06-000715
Subject:	NCR No. ZPMC-0719		

Reference Description: ZPMC performed Heat Straightening repair on OBG Crossbeam Traveler Rails by deviating from the approved HSR

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: Other **Lift:**

Remarks:

During the Quality Assurance (QA) random in-process visual inspection of Orthotropic Box Girder (OBG) Traveler Rails, this QA inspector observed that ZPMC personnel performed heat straightening of 2 traveler rails in the following ways:

-ZPMC personnel heated the areas to be straightened and mounted a temporary fixture to the flange and drove steel wedges between the fixture and flange.
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-The use of the wedges is not mention in the approved HSR.
-Furthermore, after the removal of the wedges and fixture, this QA observed damages to the base material of the flanges caused by the steel wedges.
-The affected Traveler Rails are identified as: 21TR4-003, 21TR3-003.
-The material is A709 Grade 345.

-OBG Traveler Rails are located in the Bay 1.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Sean Eagen Transportation Engineer
Attachments: ZPMC-0719

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey
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: 05.03.06-000715

Subject: NCR No. ZPMC-0719

Dated: **11-Jun-2010**

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

Job Name: SAS Superstructure

Document No.: **ABF-NPR-000711 Rev: 00**

Contractor's Proposed Resolution:

Reference Resolution: ZPMC will provide a revised HSR showing the activity that was performed in the shop. Also perform NDT of the base metal where the damage was observed.

ZPMC will provide a revised HSR showing the activity that was performed in the shop. Also perform NDT of the base metal where the damage was observed. Based on this proposal ZPMC requests that this NCR be approved, with actions pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000711R00

Caltrans' comments:

Status: AAP

Date: 15-Jun-2010

This proposed resolution is accepted, action pending. Please provide a revised HSR and NDT results for these welds upon completion of the repairs. NDT results should be provided for both the base metal repairs and the welds between the flange and web.

Submitted by: Eagen, Sean

Date: 15-Jun-2010

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: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000715

Subject: NCR No. ZPMC-0719

Dated: **15-Sep-2010**

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

Job Name: SAS Superstructure

Document No.: **ABF-NPR-000711 Rev: 01**

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has submitted the updated HSR for approval and is providing NDT of the area to show that the base metal and affected welds were not damaged by the heat straightening.

ZPMC has submitted the updated HSR for approval and is providing NDT of the area to show that the base metal and affected welds were not damaged by the heat straightening. Since this incident has occurred there has been four cases of heat straightening without Engineer approval in a 4 month period which is a decrease from previous months, ZPMC and ABFJV have been successful in decreasing occurrences of unapproved heat straightening by ensuring coverage during welding and repair operations and identifying welders and inspectors who are not following contract specifications for further training or other actions. Based on these results and the decrease in heat straightening NCRs due to new controls put into place, ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000711R01;

Caltrans' comments:

Status: CLO

Date: 26-Sep-2010

The proposed resolution is acceptable. This NCR is considered closed.

Submitted by: Woo, Laraine

Date: 26-Sep-2010

Attachment(s):

No. B-876

LETTER OF RESPONSE

TO: American Bridge/Flour
DATE: 2010-09-09
REGARDING: NCR-000757(ZPMC-0719)

ZPMC acknowledged this problem and has issued an internal NCR. ZPMC has submitted the revised HSR to show the actual method what was used on site. ZPMC is providing the NDT records to show the base metal was tested to be acceptable after repair and the affected welds' soundness after heat straightening. Based on this , ZPMC is requesting closure of this NCR.

ATTACHMENT:
NCR-000757(ZPMC-0719)
B787-MT-25950
B787-UT-13330
B787-UT-13329
B787-MT-24697
B787-MT-24698

9/9/10

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:**	07-Jun-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:**	05.03.06-000715
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Transmitted by: Sean Eagen Transportation Engineer
Attachments: ZPMC-0719

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

STATE OF CALIFORNIA--BUSINESS,TRANSPORTACTION AND HOUSING AGENCY Arnold Schwarzenegger, Governor

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China **Report No:** NCR-000757
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 06-Jun-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0719

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☑	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☐	**Component:** OBG Crossbeam Traveler Rails
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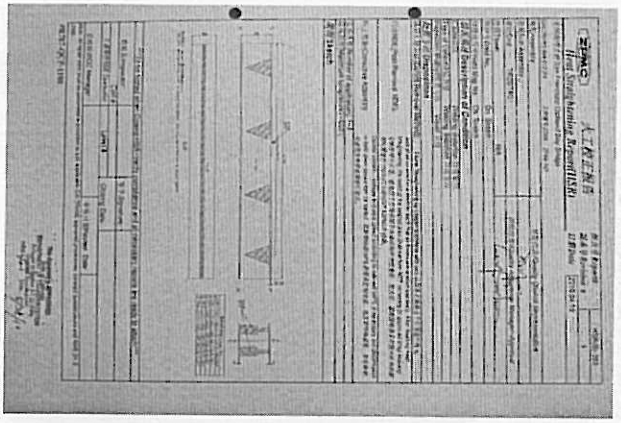
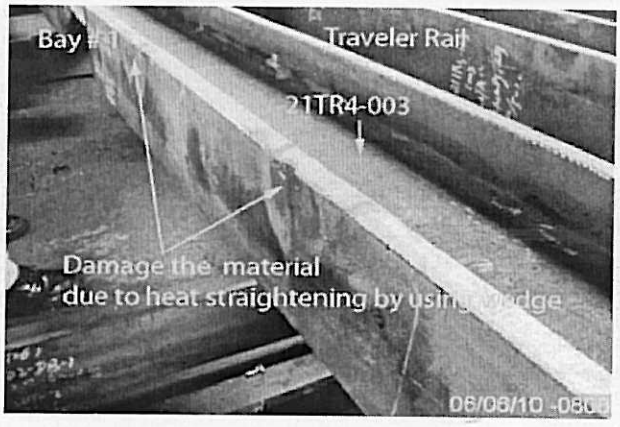
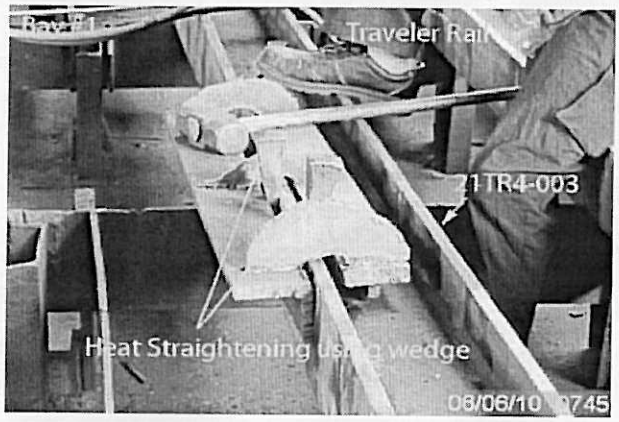
QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)







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Who discovered the problem: Dhanasingh Sukanthan
Name of individual from Contractor notified: Chen Chi Wei
Time and method of notification: 0800 hours_06/06/10_Verbal
Name of Caltrans Engineer notified: Sean Eagen
Time and method of notification: 07:00 hours_06/07/10_Verbal
QC Inspector's Name: Zhang Wei
Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

☐ **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:	Tsang,Eric	SMR
Reviewed By:	Devey,Jim	SMR

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 B787-MT-25950	DATE日期 2010.08.10	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: 21TR4/21TR3 UP LIMB PLATE		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 20mm
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	N/A

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			
21TR4-003-TR21V				ACC.		100%MT
21TR3-003-TR21P				ACC.		100%MT
BASE METAL PER B-WR13523						
BLANK						

EXAMINED BY主探	REVIEWED BY 审核
Su Wei Su wei 2010.08.10	Su Gongchang 2010.08.10
LEVEL - II SIGN 签名 / DATE日期	LEVEL-II SIGN DATE日期
质量经理 / QCM	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

REPORT OF ULTRASONIC EXAMINATION
UT探伤报告

REPORT NO. 报告编号 B787-UT-13330	DATE 2010.06.27	PAGE 1 OF 1	Revision No: 0

PROJECT NO. :工程编号 ZP06-787		CONTRACTOR : CALTRANS
ITEMS NAME: 部件名称 TRAVELER RAIL	DRAWING NO.: 图号 21TR4	CALTRANS CONTRACT NO.: 04-0120F4 加州工程编号
REFERENCING CODE 参考规范 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002(Table 6.3)	PROCEDURE NO. 程序编号 ZPQC-UT-01
WELDING PROCESS 焊接方法 FCAW	JOINT TYPE 焊缝类型 T-JOINT	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28ST ,2010

EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 序列编号
UT SCOPE	PANAMETRICS	EPOCH-4B	071565311, 061488510, 061495811, 070152011,

CALIBRATION BLOCK 试块	COUPLANT 耦合剂	MATERIAL/THICKNESS 材料厚度
AWS IIW BLOCK TYPE II	C.M.C	A709M-345T2-X 20mm

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
Changchao	70°	2.5MHz	18×18mm				
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	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
21TR4-003-001		70				32								ACC.	100%
21TR4-003-003		70				32								ACC.	100%
21TR4-003-005		70				32								ACC.	100%
21TR4-003-007		70				32								ACC.	100%
AFTER HSR1(B)-8657, HSR(B)-363															
BLANK															

EXAMINED BY主探 Huangtong 10.06.27
LEVEL - II SIGN / DATE

REVIEWED BY 审核 Liwei 10.06.27
LEVEL - II SIGN / DATE

质量经理 / QCM Lujianhua
签字 SIGN / 日期 DATE 2010.06.27

用户CUSTOMER
签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

REPORT OF ULTRASONIC EXAMINATION
UT探伤报告

REPORT NO. 报告编号 B787-UT-13329	DATE 2010.06.27	PAGE 1 OF 1	Revision No: 0

PROJECT NO. :工程编号 ZP06-787		CONTRACTOR : CALTRANS
ITEMS NAME: 部件名称 TRAVELER RAIL	DRAWING NO.: 图号 21TR3	CALTRANS CONTRACT NO.: 04-0120F4 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
FCAW	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	PANAMETRICS	EPOCH-4B	071565311, 061488510, 061495811, 070152011,
CALIBRATION BLOCK 试块	COUPLANT 耦合剂	MATERIAL/THICKNESS 材料厚度	
AWS IIW BLOCK TYPE II	C.M.C	A709M-345T2-X	20mm

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
Changchao	70°	2.5MHz	18×18mm				
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	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
21TR3-003-001		70				32								ACC.	100%
21TR3-003-003		70				32								ACC.	100%
21TR3-003-005		70				32								ACC.	100%
21TR3-003-007		70				32								ACC.	100%
AFTER HSR1(B)-8657, HSR(B)-363															
BLANK															

EXAMINED BY主探 Huang Ting 10-06-27
LEVEL - II SIGN / DATE

REVIEWED BY 审核 Sunwei 10.06.27
LEVEL - II SIGN / DATE

质量经理 / QCM Lujianhua
签字 SIGN / 日期 DATE 2010.06.27

用户CUSTOMER
签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 B787-MT-24697	DATE日期 2010.07.05	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:	21TR3 TRAVELER RAIL	CALTRANS CONTRACT NO.: 加州工程编号	04-0120F4

REFERENCING CODE 参考规范编码	ACCEPTANCE STANDARD 接受标准	PROCEDURE NO. 程序编号	CALIBRATION DUE DATE 仪器校正有效期
AWS D1.5-2002	AWS D1.5-2002	ZPQC-MT-01	Dec. 28ST ,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 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 20mm
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			
21TR3-003-001				ACC.		100%MT
21TR3-003-003				ACC.		100%MT
21TR3-003-005				ACC.		100%MT
21TR3-003-007				ACC.		100%MT
21TR3-004-001				ACC.		100%MT
21TR3-004-003				ACC.		100%MT
21TR3-004-005				ACC.		100%MT
21TR3-004-007				ACC.		100%MT
AFTER HSR1(B)-8657/HSR(B)-363						
BLANK						

EXAMINED BY主探 Sun Gongchang Sun Gongchang 10-07-15 LEVEL - II SIGN 签名 / DATE日期	REVIEWED BY 审核 Liu Wei 10.07.06 LEVEL-II SIGN / DATE日期
质量经理 / QCM Weijianhua 签字 SIGN / 日期 DATE 2010.07.07	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 B787-MT-24698	DATE日期 2010.07.05	PAGE OF页码 1/2	Revision No: 0

PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用 户: CALTRANS	
DRAWING NO. 图号: 21TR4 TRAVELER RAIL		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 20mm
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			
21TR4-003-001				ACC.		100%MT
21TR4-003-003				ACC.		100%MT
21TR4-003-005				ACC.		100%MT
21TR4-003-007				ACC.		100%MT
21TR4-002-001				ACC.		100%MT
21TR4-002-003				ACC.		100%MT
21TR4-002-005				ACC.		100%MT
21TR4-002-007				ACC.		100%MT
21TR4-001-001				ACC.		100%MT
21TR4-001-003				ACC.		100%MT
21TR4-001-005				ACC.		100%MT
21TR4-001-007				ACC.		100%MT
21TR4-004-001				ACC.		100%MT
21TR4-004-003				ACC.		100%MT

EXAMINED BY主探 Sun Gongchang Sun Gongchang 10.07.05 LEVEL - II SIGN 签名 / DATE日期	REVIEWED BY 审核 Sun Wei 10.07.05 LEVEL-II SIGN / DATE日期
质量经理 / QCM 签字 SIGN / 日期 DATE 10.07.05	用户CUSTOMER 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, P.R. China **Report No:** NCS-000810
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 26-Sep-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0719

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: 06-Jun-2010

Description of Non-Conformance:

During the Quality Assurance (QA) random in-process visual inspection of Orthotropic Box Girder (OBG) Traveler Rails, this QA inspector observed that ZPMC personnel performed heat straightening of 2 traveler rails in the following ways:

-ZPMC personnel heated the areas to be straightened and mounted a temporary fixture to the flange and drove steel wedges between the fixture and flange.
-The above procedure is not an approved heat straightening procedure as shown in HSR (B)-363, Revision 1.
-The use of the wedges is not mention in the approved HSR.
-Furthermore, after the removal of the wedges and fixture, this QA observed damages to the base material of the flanges caused by the steel wedges.
-The affected Traveler Rails are identified as: 21TR4-003, 21TR3-003.
-The material is A709 Grade 345.

-OBG Traveler Rails are located in the Bay 1.

Contractor's proposal to correct the problem:

Contractor will submit an updated HSR for approval, and provide NDT report to show that the base metal and affected welds were not damaged by the heat straightening. Contractor will monitor the unapproved heat straightening by ensuring coverage during welding and repair operations. Contractor will identify the welders and inspectors who are not follow the contract specifications for further training and otehr actions.

Corrective action taken:

Contractor submitted the updated HSR, and NDT report provided. The NDT report showed the base metal and affected welds did not damage by heat straightening. Contractor will continue to montior the unapproval heat straightening, and training or other action will be taken if the welders and inspectors do not follow the contract specification continuously.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Did corrective action require Engineer's approval? ☐ **Yes** ☑ **No**

If so, name of Engineer providing approval: **Date:**

Is Engineer's approval attached? ☐ **Yes** ☑ **No**

Comments:

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

Inspected By:	Ng,Michael	Quality Assurance Inspector
Reviewed By:	Wahbeh,Mazen	QA Reviewer