

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 #: 70.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Murooran, Japan

Report No: NCR-000112

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 10-Apr-2008

Submitting Contractor: Japan Steel Works

NCR #: JSW-0002

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: West Deviation Saddle
Procedural	Procedural	Descriptor: Failure to provide plate delivery notification	

Reference Description: Quality Management Issue

Description of Non-Conformance:

Japan Steel Works (JSW) received HPS 485 steel plate and completed cutting operations for fabrication of the West Deviation Saddle segments without providing notification to METS and ABF's QC inspectors from Intertec.

Twenty three HPS 485 steel plates were reportedly received around the middle of December, 2007. Plate cutting was reportedly started on February 22, 2008. Currently, twenty two of the twenty three plates have been cut. Cut plates are marked with piece number only.

Cut plates materials will be used for fabricate of W2E1, W2E2, W2E3, W2W1, W2W2 and W2W3 segments.



Applicable reference:

Standard Specification, Section 55-1.03 INSPECTION - "Structural steel will be inspected at the fabrication site. The Contractor shall notify the Engineer when materials have been delivered to the fabrication site and

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

shall give the Engineer at least 10 days notice after delivery before commencing the fabrication of any structural steel."

Who discovered the problem: Mr. Wai Pau and Mr. Danny Reyes

Name of individual from Contractor notified: Kazunori Sato with JSW

Time and method of notification: 1630 on April 10, 2008 by phone and email

Name of Caltrans Engineer notified: Warren Collins

Time and method of notification: 0200 on April 11, 2008 by email

QC Inspector's Name:

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

JSW proposes to provide the following:

1. Plate cut location diagram indicating plate numbering sequence.
2. Conduct chemical testing of the cut plates using a portable X-Ray Fluorescence Metal Analyzer for comparison with MTRs.

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 Venkatesh Iyer,(510) 808-4542, who represents the Office of Structural Materials for your project.

Inspected By:	Brasel,Ron	SMR
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Reviewed By:	Iyer,Venkatesh	SMR
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DEPARTMENT OF TRANSPORTATION

333 Burma Road
Oakland CA 94607
Tel: 510-622-5661 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: American Bridge/Fluor Enterprises, a JV
375 BURMA ROAD
OAKLAND CA 95607
Date: 14-Apr-2008
Contract No: 04-0120F4
04-SF-80-13.2 / 13.9
Dear: Mr. Charles Kanapicki
Attention: Mr. Robert Kick
Job Name: SAS Superstructure
Subject: NCR No. JSW-0002
Document No: 05.03.06-000089

Reference Description: Quality Management Issue

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 - No Response Required.

Remarks:

Material Location: Casting **Lift:** N/A

Japan Steel Works (JSW) received HPS 485W steel plate and also completed cutting operations for the fabrication of the West Deviation Saddle segments without providing any notification to the Engineer as required by section 55-1.03, "INSPECTION," of the Standard Specifications.

See attached NCR JSW-0002 for further details.

Action Required and/or Action Taken:

The Contractor must be able to verify that all of the cut HPS 485W steel can be traced back to the applicable MTR in order for it to be used in the West Deviation Saddle.

The Contractor must amend their quality procedures to ensure that the Engineer and/or the Engineer's on-site representative is informed of all operations involving the SAS Bridge Saddles.

Transmitted By: Warren Collins Assistant Structural Rep

Attachments: JSW-0002

cc: Rick Morrow, Brian Boal, James Bowers

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000089

Subject: NCR No. JSW-0002

Dated: 02-May-2008

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000033 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: Based on documentation provided JSW requests that material be accepted as-is and will provide proper notification to METS in the future

Please see the attached response from JSW. ABFJV has reviewed and concurs with this response and considers this issue resolved.

Charles J. Kanapicki, P.E.

Submitted by: Kanapicki, Charles

Attachment(s): ABF-NPR-000033R00;

Caltrans' comments:

Status: CLO

Date: 09-May-2008

Based on the response provided, the HPS 485W plate delivered and cut without notification and being witnessed by the Department may be used for the West Deviation Saddles (WDS).

The proposed corrective action for the remaining WDS plate and Tower Saddle plates is also acceptable.

The Department considers the NCR Closed.

Submitted by: Collins, Warren

Attachment(s): NPR CT Comments

Date: 09-May-2008

1/2

JSW

THE JAPAN STEEL WORKS, LTD.

Muroran Plant
4, Chatsu-Machi,
Muroran, Hokkaido, 051-8505,
JAPAN
PHONE : 81-143-22-0104
FAX : 81-143-22-1439

DATE : 1 May 2008
JSW Letter Ref. No. : BG-TR-08-002
PROJECT : SAS Bridge
CONTRACT No. : 04-0120F4
PRODUCT : Saddles
PURCHASE ORDER No. : 660110-SA-005

ATTENTION: American Bridge/Fluor Enterprises Inc., A Joint Venture
SUBJECT: Response for NCR-000112 (NCR#JSW-0002) issued by Caltrans on April 10,2008

Dear Sirs,

With reference to the above captioned NCR, we would like to provide our proposal as follows

1. Description of Non-conformance

- 1) The plate materials, ASTM A709M Gr.HPS485W have been delivered from Nippon Steel Corporation in Japan on the middle of Dec, 2007. These materials have been used to structures on West Deviation Saddles.
- 2) From February 22, 2008, the particular materials of twenty-two (22) of twenty-three (23) plates have been cut by numerical control cutting machine. At the time of cutting operation, our Production Engineering team has issued the cutting layout documents which show the original plate number (Identical plate number), piece number of each Saddle and cutting size of each piece.
- 3) However, the cutting operation was performed without the notification to METS and ABF's QC inspectors.

2. Disposition

We would like to propose to use the existing pieces to structure components of West Deviation Saddle based on following documents.

- 1) Our control plan for cutting operation is shown in attachment 1, "Follow of Plate Material". The documents referred in attachment 1 are also endorsed herewith.

List of attachment

Attachment 2 - Order sheet from JSW, providing with technical requirements

Attachment 3 - Delivery documents issued by Nippon Steel Corporation

Attachment 4 - Receiving notice issued by JSW's procurement Group

Attachment 5 - Certified Material Test Reports issued by Nippon Steel Corporation

Attachment 6 - Receiving notice issued by JSW's SFOBB Project team

Attachment 7 - Cutting layout Instruction sheets issued by JSW's Production Engineering team

Attachment 8 - Photographs of original marking for each plate before cutting

Attachment 9 - Summary for Material list of ASTM A709M Gr.HPS485W

- 2) Before cutting operation, the individual piece number was marked with paint on the plate surface. The individual piece number has never been overlapped to each piece. The each piece has never been mixed up the heat number of original plates.

From the above our cutting procedure, it is concluded the cutting pieces have been taken from ASTM A709M Gr. HPS 485W material.

3. Corrective action

The remaining plate of West Deviation Saddles and the plates of Tower Saddles shall be controlled by following method.

- Step 1 – Issue of notification for cutting operation by TL-38
- Step 2 – Inspection of original plates prior to cutting by Caltrans' representatives and CWI
- Step 3 – Marking of individual piece number and plate number onto each piece by JSW and inspection by Caltrans' representatives and CWI
- Step 4 – Cutting operation using our cutting lay out instruction sheet by JSW

If you have any questions or comments to the above, please let us know.

These are submitted as checked below :

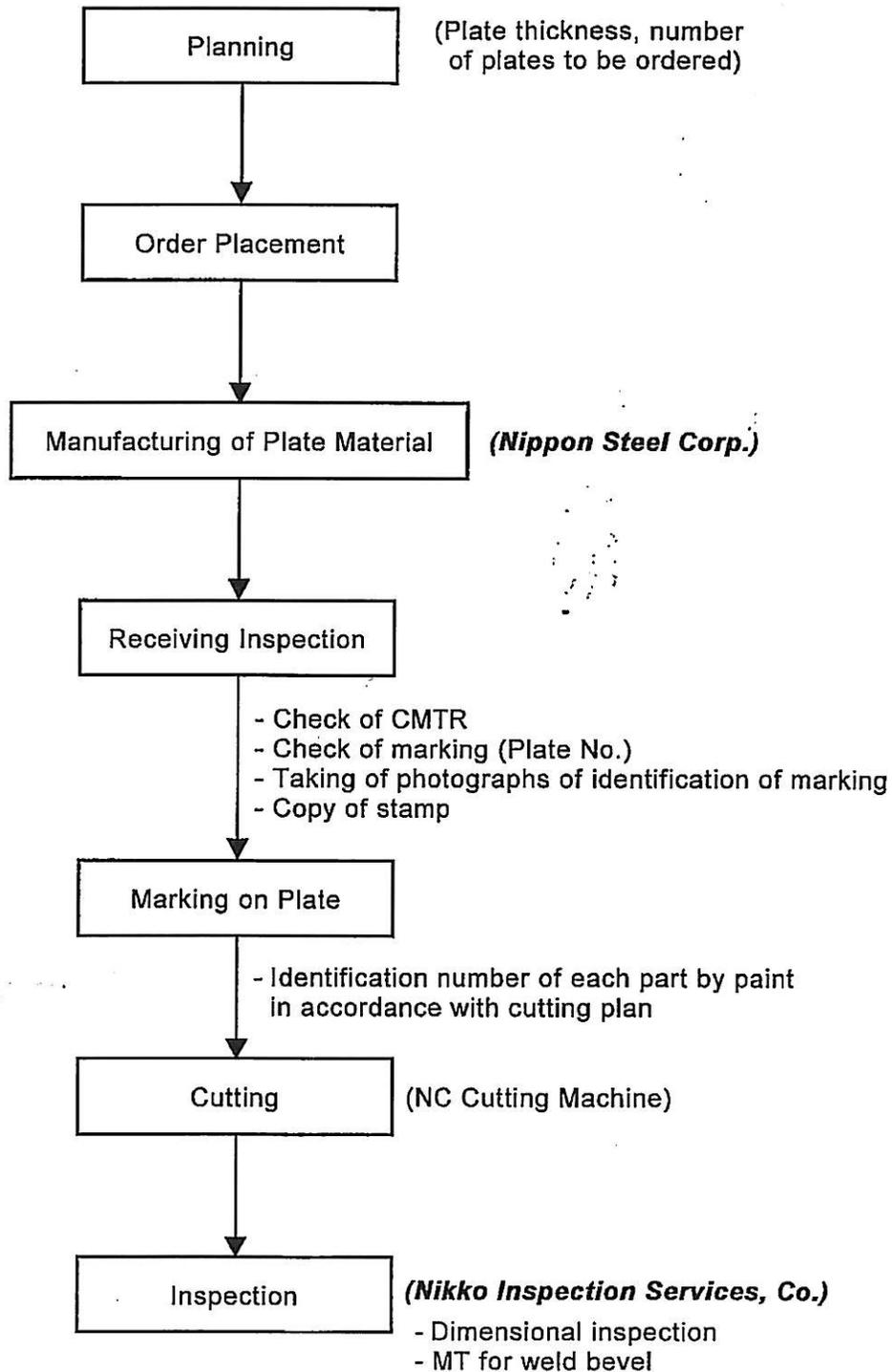
- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> For Approval | <input type="checkbox"/> For Your Review and comment | <input type="checkbox"/> For Your Signature |
| <input type="checkbox"/> As requested | <input type="checkbox"/> Other | |

Best regards,



Kazunori Sato
Bridge Group, Muroran Plant
The Japan Steel Works, Ltd.

Follow of Plate Material (A709M Gr.HPS 485WT, A709M-Gr. 345T)



JSW Job No.
 工事番号 : BJ6-3402

Doc No.
 書類番号 : SJ-3017
 Rev.
 改訂 : 2
 Page.
 頁 : 1/4
 Date.
 日付 : 平成19年 8月 2日
 2nd Aug, 2007.

Customer
 顧客 : American Bridge/Fluor Enterprises Inc., A Joint Venture
 End User
 同先 : State of California Department of Transportation
 Contract No.
 契約番号 : #660110-SA-0005
 Project Name
 工事名称 : SFOBB/SAS Suspension Bridge
 Order Item
 品名 : 鋼板 Steel Plate.

Purchase Order Specification.

鋼板 (その1) for Steel Plates.

購入仕様書

Steel Products Dept. Bridge Gr.
 Mukoran Plant
 Japan Steel Works, Ltd.
 株式会社 日本製鋼所 室蘭製作所
 鉄構製品部 橋梁グループ

配付先	
機械	
工程管理	1
調達	3
工場 (工事2課)	2
鉄構生産技術	1
NIS (鉄構検査)	1
控	1
計	9

revision	Date	Description	Approved by	checked by	prepared by
2	平成19年9月12日	購入先との仕様確認による改訂	H. Terada 寺田	-	K. Sato 佐藤
1	平成19年8月6日	UT仕様追記及び客先特別仕様追加	寺田	-	佐藤
0	平成19年8月2日	初版発行	寺田	-	佐藤
改訂	日付	記事 Description	承認	審査	作成
revision	Date	改訂来歴表	Approved by	checked by	prepared by
		revision status.	by	by	by

Summary

1. 適用

本購入仕様書は、SFOBB (San Francisco Oakland Bay Bridge) 向けサドルに使用する鋼板の購入に適用する。 *This purchase order is applied to purchase the steel plates for Saddles. of SFOBB project.*

Code

2. 適用規格等

① *Material shall be Gr. 345T or Gr. HPS485WT of ASTM A709+*

① 材料の適用規格は、最新版の ASTM A709M Gr. 345T 及び Gr. HPS485WT とする。

ただし、厚さ 100mm を超えるものについては、規格 (化学成分、機械的性質等) は ASTM A709M を適用し、Modify 材として規定するものとする。

・シャルピー衝撃試験の条件 (Gr. 345T, Gr. HPS485WT 共通) *Condition of CVN Test (both 345 and HPS485WT)*
使用地域: Zone 2

Non-Fracture Critical Tension Component

・Gr. 345T の化学成分は、Type 1, 2 若しくは 3 を適用する。 (Type 5 は不可) *Chemical composition of Gr. 345 shall be applied to Type 1, 2 or 3 (Type 5 shall not be applied)*
また、Sulfur 値は、max 0.010% とする。 *Sulfur contents shall be max. 0.010%.*

② 追加規定として Gr. 345T には、炭素当量 (以下の式参照) の規定を設ける。

$$CE = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15 \leq 0.52\%$$

② *Based on Special Provisions, the Carbon Equivalent for Gr. 345 shall not exceed 0.52%.* (客先特別要求による)

③ 超音波探傷試験 *Ultrasonic Testing*

添付オーダーテーブル (P4/4) に示す鋼板を ASTM A6M/ S8 により実施する。 *Spec: A6M/S8 A578M.*

UT は、ASTM A578M を適用するものとし、判定基準は Level C とする。 *Criteria: Level C.*

④ 機械的性質の追加客先特別要求 *Additional mechanical property test.*

添付オーダーテーブル (P4/4) に示す鋼板の Reduction of Area は、Min 20% とする。

(試験は、ASTM A770M による) *The steel which is marked 0 in page 4 of 4 shall meet the reduction of area requirements of AWS A5.5 section 12.4.4.1. (20% as described in ASTM A770M)*

3. 試験材の SR *SR for test specimens*

鋼板の機械試験は、試験前に試験材を下記の温度条件にて熱処理して実施する。

SR temperature: 600 ± 10°C holding time: 12 hours.
SR 温度: 600 ± 10°C 保持時間: 12 時間

4. 表面処理 *Surface preparation.*

全鋼板、シヨップライマーは不要とする。 *All steel plates shall not be painted by supplier.*

5. 材質の表示 *Marking of Material, heat No. etc.*

plate No. (by low stress stamp)
材番打刻位置 (ローストレススタンプ使用のこと)

板番号、材質を次のとおり表示のこと。

① STAMP: *plate No. shall be stamped at ② of surface.*

① 刻印: TOP 側より 50mm 程度の位置

② テープに板厚、材質、板番等を記入の上、

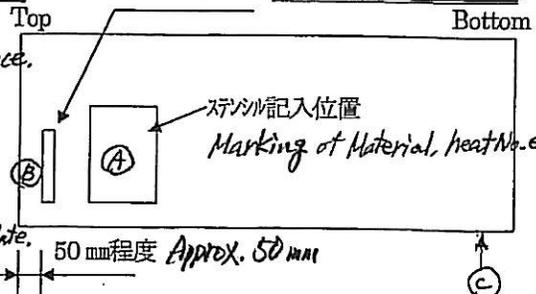
BOTTOM 側付近のコバ面に貼付ける事。

(参考) ② *tape which is written size and Marial of plate shall be put on ② of steel plate.*

③ 鋼板本体へのステンシルには、サイズ、

材質、板番、チャージNo、弊社工事番号等を表示のこと。

③ *JSW company name, code, material, size, heat No, plate No. and JSW Job No. shall be stenciled on ④ of steel plate surface.*



6. 提出書類 Required documentation

下記の書類を鋼板納入時に3部提出すること。

- ① 英文による材料証明書 (単位は SI 単位系) ① *CMTRs written in English.*
 ② 英文による超音波探傷試験成績書 ② *UT results written in English.*

7. 希望納期 Required delivery date.

平成19年11月19日 (月) *19th Nov, 2007.*

8. 納入場所 Delivery place

㈱日本製鋼所 室蘭製作所 第二鉄構工場

*No.2 Fabrication shop,
Murooran Plant, JSW.*

9. 購入鋼板のサイズ、数量 Size and quantities of steel plates.

購入する鋼板のサイズ、数量、材質を添付オーダーテーブルに示す。

(P4/4 参照) *The size, material and quantities of steel plates are shown
in page 4 of 4 of this specification.*

10. 受入検査 Receiving Inspection.

納入後、鋼板の寸法・外観の検査を実施する事。

*After receiving the steel plates, dimensional inspection & visual inspection
should be carried out.*

Order table for steel plates

4/4

5/5

鋼板オーダーテーブル Material		thick.	width	Length	weight		JSW's plate control No.	Remarks		
No.	材 質	板厚	板幅	板長	員数	重 量	原板No.	UT *1	RA *2	備 考
1	ASTM A709M Gr.345T	6	1,850	3,000	1	261	84			PQR Test
2	ASTM A709M Gr.345T	12	1,850	4,000	1	697	83	○*3		PQR Test
3	ASTM A709M Gr.345T	25	1,850	5,000	1	1,815	82	○	○	PQR Test
4	ASTM A709M Gr.345T	50	1,850	4,060	1	2,948	81	○	○	PQR Test
5	ASTM A709M Gr.HPS 485WT	50	1,850	6,990	1	5,076	80	○	○	PQR Test
6	ASTM A709M Gr.HPS 485WT	80	2,590	6,770	1	11,012	1	○	○	
7	ASTM A709M Gr.HPS 485WT	80	2,930	5,060	2	18,621	2,3	○	○	
8	ASTM A709M Gr.HPS 485WT	80	2,830	4,370	3	23,300	4,5,33	○	○	
9	ASTM A709M Gr.HPS 485WT	80	2,930	4,360	1	8,023	32	○	○	
10	ASTM A709M Gr.HPS 485WT	80	1,850	4,390	1	5,100	35	○	○	
11	ASTM A709M Gr.HPS 485WT	90	2,230	4,740	2	14,936	6,7	○	○	
12	ASTM A709M Gr.HPS 485WT	100	2,610	4,410	1	9,035	9	○	○	
13	ASTM A709M Gr.HPS 485WT	100	2,460	5,380	3	31,168	8,37,65	○	○	
14	ASTM A709M Gr.HPS 485WT	110	1,850	4,750	2	15,176	10,39	○	○	Modify材
15	ASTM A709M Gr.HPS 485WT	120	2,470	5,370	1	12,495	11	○	○	Modify材
16	ASTM A709M Gr.HPS 485WT	120	2,470	5,160	5	60,030	12,40,41,66,69	○	○	Modify材
合 計 Total.					27	219,693				

*1: Ultrasonic Testing

*2: Reduction of Area.

*3: ○ means applied to UT and/or RA.

Size (thick x width x length)

Material

Weight (ton)

Quantity

Delivery date

Job No.

Contract No.

契約番号	契約NO	商品コード	品名	数量	単位	受渡年月日	数量	単位	規格	寸法
	6103400	E361001	BJ6-3402	1		20071211	5.075		A709M-HPS485WT2-ZT-06A	50X1850X6990
	6103400	E361001	BJ6-3402	1		20071211	11.009		A709M-HPS485WT2-ZT-06A	80X2690X6770
	6103400	E361001	BJ6-3402	2		20071211	18.826		A709M-HPS485WT2-ZT-06A	80X2930X5060
	6103400	E361001	BJ6-3402	1		20071211	7.768		A709M-HPS485WT2-ZT-06A	80X2830X4370
	6103400	E361001	BJ6-3402	1		20071211	8.020		A709M-HPS485WT2-ZT-06A	80X2930X4360
	6103400	E361001	BJ6-3402	1		20071211	5.101		A709M-HPS485WT2-ZT-06A	80X1850X4990
	6103400	E361001	BJ6-3402	2		20071211	14.886		A709M-HPS485WT2-ZT-06A	90X2230X4740
	6103400	E361001	BJ6-3402	1		20071211	9.035		A709M-HPS485WT2-ZT-06A	100X2610X4410
	6103400	E361001	BJ6-3402	3		20071211	31.158		A709M-HPS485WT2-ZT-06A	100X2460X9380
	6103500	E361001	BJ6-3402	2		20071211	15.176		A709MHPS485WT2ZT-06A-M	110X1850X4750
	6103500	E361001	BJ6-3402	1		20071211	12.491		A709MHPS485WT2ZT-06A-M	120X2470X5370
	6103500	E361001	BJ6-3402	5		20071211	60.060		A709MHPS485WT2ZT-06A-M	120X2470X5160
	6103400	E361001	BJ6-3402	2		20071215	15.536		A709M-HPS485WT2-ZT-06A	80X2830X4370

JSW 既向け 12/11(火) 出替⇒12/14(金) 納入予定 分 対象明細一覧(プレート)

約定	管理納期	振替	成庫厚	成庫市	成庫長	車量	規格略号	現工程	出荷山	現工程	寄港地	受渡場所
7108H11M71201	07/11/15	010250010	5000	1850	8990	5075	A709M-HPS485WT2-ZT-06A	43	727815	43-	T13	81504
7108H11M71301	07/11/15	010003010	11000	1850	4760	7588	A709MHPS485WT2ZT-06A-M	43	727815	43-	T13	81504
7108H11M71301	07/11/15	010003020	11000	1850	4760	7588	A709MHPS485WT2ZT-06A-M	43	727815	43-	T13	81504
7108H11M71202	07/11/30	010302010	8000	2590	6770	11009	A709M-HPS485WT2-ZT-06A	43	727821	43-	T13	81504
7108H11M71203	07/11/30	338484010	8000	2830	5060	8313	A709M-HPS485WT2-ZT-06A	43	728009	43-	T13	81504
7108H11M71203	07/11/30	338484020	8000	2830	5060	8313	A709M-HPS485WT2-ZT-06A	43	727821	43-	T13	81504
7108H11M71204	07/11/30	338444020	8000	2830	4370	7768	A709M-HPS485WT2-ZT-06A	43	727816	43-	T13	81504
7108H11M71205	07/11/30	338444010	8000	2830	4360	8020	A709M-HPS485WT2-ZT-06A	43	727815	43-	T13	81504
7108H11M71206	07/11/30	010302020	8000	1850	4390	5101	A709M-HPS485WT2-ZT-06A	43	728009	43-	T13	81504
7108H11M71207	07/11/30	010000010	9000	2230	4740	7468	A709M-HPS485WT2-ZT-06A	43	727815	43-	T13	81504
7108H11M71208	07/11/30	010264010	10000	2610	4410	8035	A709M-HPS485WT2-ZT-06A	43	727815	43-	T13	81504
7108H11M71209	07/11/30	010264020	10000	2460	5360	10386	A709M-HPS485WT2-ZT-06A	43	524510	43-	T13	81604
7108H11M71209	07/11/30	010265020	10000	2460	5390	10386	A709M-HPS485WT2-ZT-06A	43	530802	43-	T13	81604
7108H11M71302	07/11/30	010002010	12000	2470	5370	12491	A709MHPS485WTZT-06A-M	43	727815	43-	T13	81504
7108H11M71303	07/11/30	010001010	12000	2470	5160	12010	A709MHPS485WTZT-06A-M	43	727815	43-	T13	81604
7108H11M71303	07/11/30	010004010	12000	2470	5160	12010	A709MHPS485WTZT-06A-M	43	361312	43-	T13	81504
7108H11M71303	07/11/30	010005010	12000	2470	5160	12010	A709MHPS485WTZT-06A-M	43	361312	43-	T13	81504
7108H11M71303	07/11/30	010248010	12000	2470	5160	12010	A709MHPS485WTZT-06A-M	43	727815	43-	T13	81504
7108H11M71303	07/11/30	010266010	12000	2470	5160	12010	A709MHPS485WTZT-06A-M	43	727815	43-	T13	81504



1/1

12/15(土)出荷⇒12/18(火)納入予定分 対象明細一覧(プレート) >

K-No.	約定	一次User	管理納期	板番	成品厚	成品巾	成品長	単量	規格略号	出荷山	寄港地	受渡場所
KJSX30	7108HT1M71204	NIHON SEIKOSHO	07/11/30	388343010	8000	2830	4370	7768	A709M-HPS485WT2-ZT-06A	726621	T13	81504
KJSX30	7108HT1M71204	NIHON SEIKOSHO	07/11/30	388343020	8000	2830	4370	7768	A709M-HPS485WT2-ZT-06A	726621	T13	81504



↑
プレート2枚2欠1緑送りです。

BJ6-3402 SF0BB向

2/2

Production Control Gr.
工程管理グループ殿
Procurement Gr.
調達グループ 殿
鉄構製品部 (生技) 殿
Production planning Gr.

DocNo.:
書類番号: BG-PN-08-001
JSW JobNo.
工事番号: BJ6-3402
Date: Feb. 21, 2008
日付: 平成20年 2月12日

鋼板材料合格通知書
Receiving Inspection Notice

Customer
向先: ABEJV / Caltrans
Project name
工事名: SFOBB 向けサドル Saddles for SFOBB

1. 掲題工事の、材料検査は、2月12日(火)に、自主検査において、合格となりました。

添付資料の鋼板(WDS用)の切断を許可しますので、製作作業に着手願います。

但し、開先加工については指示があるまで施工しないこと。

The steel plates of ASTM A709M Gr. HPS485W have been inspected and accepted on Feb. 12, 2008.

Therefore please proceed the cutting operation at the fabrication shop.

— 以上 —

Steel Plate Dept. Bridge Gr.
鉄構製品部 橋梁 Gr (SFOBB)

承認 Approved by	審査 Checked by	作成 Prepared by
寺田 20. 2. 13	佐藤 '08. 2. 13 (和)	橋梁 '08. 2. 13 長塚

H. Terada K. Sato K. Nagaya

注文者: MITSUI BUSSAN

注文者照合番号: 182-6103500

契約番号: 7-108-H1-1-9-M713

商品名: STEEL PLATE

規格: ASTM A709M-06A GRADE HPS485WT2-ZT-MODIFI-

文書番号: ED

必要家管理番号: NIJON SEIKOSHO

CUSTOMER No.:

必要家管理番号: B.J6-3402

CUSTOMER'S CONTROL No.:

発行年月日: 2007-12-11

新日本製鋼株式会社 Nippon Steel Corporation 鋼材検査証明書 INSPECTION CERTIFICATE

本社: 〒100-8071 東京都千代田区大手町二丁目6番3号

HEAD OFFICE: 〒2-6-3, OTEWACHI, CHIYODA-KU, TOKYO, 100-8071, JAPAN

名古屋製鐵所: 〒476-8686 愛知県東海市東海町五丁目3番地

NAGOYA WORKS: 5-3, TOKAI-MACHI, TOKAI-CITY, AICHI-PREF., 476-8686, JAPAN

証明書番号: M720157

発行年月日: 2007-12-11

必要家管理番号: B.J6-3402

CUSTOMER'S CONTROL No.:

発行年月日: 2007-12-11

Table with columns for DIMENSION, MASS, CAST No., TEST No., TENSILE TEST, ELONGATION, CHEMICAL COMPOSITION, and IMPACT TEST. Includes rows for B.J6-3402 and B.J6-3402 with various test results.

注釈 NOTES: 1. 位置・方向: 位置・方向: 位置・方向... 2. 縦断面方向 Through Thickness, R: 45° 方向 45° 方向 45° 方向... 3. 合格 Acceptable... 4. 焼入後焼戻し... 5. 焼入後焼戻し... 6. 焼入後焼戻し...

上記注文品は御指定の規格または仕様に従って製造され、その要求事項を満足していることを証明します。

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.

名古屋製鐵所 厚板管理グループ 品質管理グループ 名古屋製鐵所 厚板管理グループ 品質管理グループ

GROUP MANAGER PLATE QUALITY CONTROL DEPARTMENT NAGOYA WORKS

注 文 者 : MITSUI BUSSAN
 SHIPPER

注文者照会番号 : 182-6103500
 REFERENCE No.

契約番号 : 7-108-H1-1-9-M713
 CONTRACT No.

商 品 名 : STEEL PLATE
 COMMODITY

規 格 : ASTM A709M-06A GRADE HPS485WT2-ZT-MODIFI-
 SPECIFICATION ED

文 書 番 号 :
 DOCUMENT No.

新日本製鐵株式会社
 Nippon Steel Corporation
 鋼材検査証明書
 INSPECTION CERTIFICATE

本 社 : 〒100-8071 東京都千代田区大手町二丁目 6 番 3 号
 HEAD OFFICE 2-6-3, OTEMACHI, CHIYODA-KU, TOKYO, 100-8071, JAPAN
 名古屋製鐵所 : 〒476-8686 愛知県東海市東海町五丁目 3 番地
 NAGOYA WORKS 5-3, TOKAI-MACHI, TOKAI-CITY, AICHI-PREF., 476-8686, JAPAN

証明書番号 : M720157 PAGE : 2E
 CERTIFICATE No.

発行年月日 : 2007-12-11
 DATE OF ISSUE

需要家管理番号 : BJ6-3402 N5550P3HQ0
 CUSTOMER'S CONTROL No.

寸 法 DIMENSION MM, " : INCH, " : FEET	負 数 QUAN- TITY	質 量 MASS KG	製鋼番号 CAST No. 試験番号 TEST No.	製品番号 PLATE No.	引張試験 TENSILE TEST		衝撃試験 IMPACT TEST		化 学 成 分 CHEMICAL COMPOSITION %															
					引張強さ Y.S. 引張強さ T.S. 引張強さ M.P.A.	伸長率 EL. % 伸長率 S. %	2V -31C 平均値 AVG EACH	単位 EACH	C %	SI %	Mn %	P %	S %	CU %	NI %	CR %	MO %	ND %	V %	AL %	CA %	REMARKS		
BJ6-3402 120X2470X5160	03	12010	NK0689 02367	010005-1	BCB	500	600	270	69	223	181	9	34	125	6	2	34	27	48	3	0	427	TMC	
BJ6-3402 120X2470X5160	03	12010	NK0691 05390	010249-1	BCB	505	605	276	68	152	193	9	36	125	12	2	34	28	52	3	0	429	TMC	
BJ6-3402 120X2470X5160	03	12010	NK0691 05725	010266-1	BCB	505	605	268	71	198	188	9	36	125	12	2	34	28	52	3	0	429	TMC	
HEAT TREATMENT TEST SPECIMEN SR : 600CX 720MIN. CAST TE1 =26.01CU+3.88NI+1.20CR+1.49SI+17.28P-7.29CU-NI-9.10NI-P-33.39CU2 (ASTM G101)																								
TOTAL					8	87717																		

注 記 NOTES 1. 位置 Orientation 位置・方向, T: 頂部 Top, B: 底部 Bottom, L: 圧延方向 Longitudinal, C: 横方向 Transverse, Z: 板厚方向 Through Thickness, R: 45° 方向 45Deg. to the Longitudinal Axis
 2. 標準公差 Standard Tolerance A: 50mm 平行四辺形鋼板 Rectangular, B: 50mm 丸形鋼板 Round, C: 70mm 平行四辺形鋼板 Rectangular, D: 70mm 丸形鋼板 Round, E: 80mm 平行四辺形鋼板 Rectangular, F: 80mm 丸形鋼板 Round, G: 200mm, H: 2", I: 8", J: 5.65/50, K: 4/50
 3. RA: 減り Reduction of Area, YR: 降伏比 Yield Ratio, [選] A: 合格 Acceptable, [選] F: 標準寸法 Full Size, 2-2, 5mm, 3-3, 3mm, 4-3, 3mm, 5-5, 5mm, 6-6, 6mm, 7-7, 5mm, 8-6, 7mm, 9: 製鉄所製 Plate Thickness, [選] P: 製品分析 Product Analysis
 4. M: 焼戻し Normalized, Q: 焼入れ Quenched, T: 焼戻し Tempered, CR: Controlled Rolled, NLC: NLC Process/MLC Process, CLC: CLC Process/MLC Process, L: Intermediate Heat Treatment, AR: As Rolled
 5. SF: 延性断面 Shear Fracture, CF: 脆性断面 Brittle Fracture, LE: 横断面 Lateral Expansion, AGS: オーステナイト初級 Ferrite Grain Size, FGS: フェライト初級 Ferrite Grain Size, SR: Stress Relieved/Post Heat Treatment
 温度 Temperature
 °C: °C
 °F: °F

上記注文品は御指定の規格または仕様に従って製造され、その要求事項を満足していることを証明します。

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN
 MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.

名古屋製鐵所 厚板管理室
 GROUP MANAGER
 PLATE QUALITY CONTROL DEPARTMENT
 NAGOYA WORKS

Y. Okaya



Attachment 7 for BG-TR-08-002.

1/21

板取管理シート

工号:SFOBB-DEV板手配

工事名:SFOBB-DEV

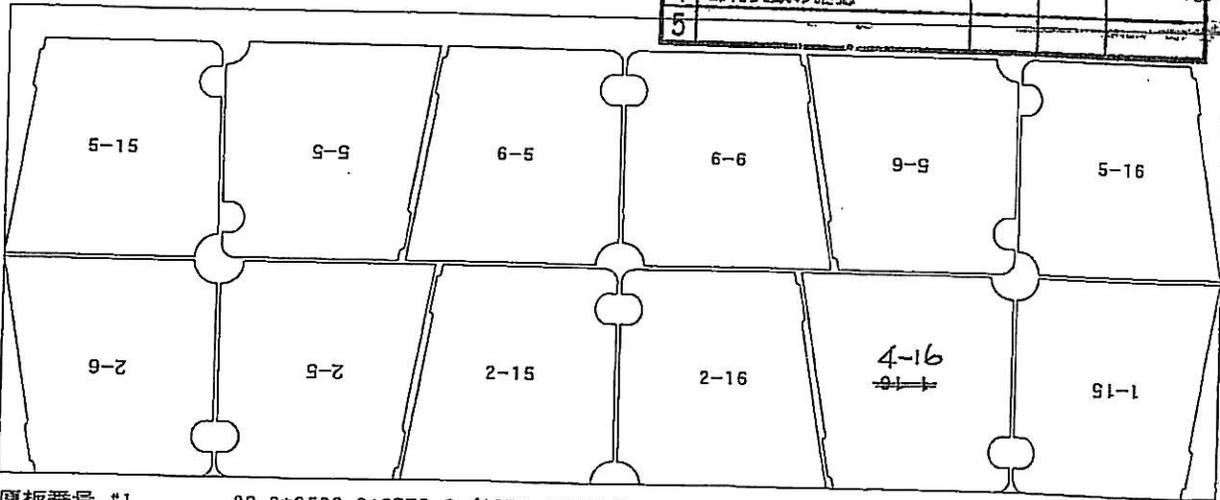
原板番号	材質	シク	表面	原板サイズ	原板重量	部材重量	ロス率/歩留	部材/種類
✓ 1	ASTM A709M HPS	0	[-]	80.0x 2590.0x 6770.0	11009.0	9416.7	16.9 85.5	1 1

485WT

部材番号	使用箇所	使用寸法	員数	部材マーク	重量	ロス率	備考
1015		80.0x 1193.1x 1171.5	1	1-15	784.7	89.4	
1016		80.0x 1193.1x 1171.5	1	1-16	784.7	89.4	
2005		80.0x 1193.1x 1171.5	1	2-5	784.7	89.4	
2006		80.0x 1193.1x 1171.5	1	2-6	784.7	89.4	
2015		80.0x 1193.1x 1171.5	1	2-15	784.7	89.4	
2016		80.0x 1193.1x 1171.5	1	2-16	784.7	89.4	
5005		80.0x 1193.1x 1171.5	1	5-5	784.7	89.4	
5006		80.0x 1193.1x 1171.5	1	5-6	784.7	89.4	
5015		80.0x 1193.1x 1171.5	1	5-15	784.7	89.4	
5016		80.0x 1193.1x 1171.5	1	5-16	784.7	89.4	
6005		80.0x 1193.1x 1171.5	1	6-5	784.7	89.4	
6006		80.0x 1193.1x 1171.5	1	6-6	784.7	89.4	

枚数 010302-1

確認事項	確認	確認日	確認者
1 材番の確認			
2 材質の確認			
3 部材マークの確認			
4 部材員数の確認			
5			



原板番号 #1 80.0*2590.0*6770.0 (ASTM A709M HPS 485WT) OR= 0

板取管理シート

工号:SFOBB-DEV板手配

工事名:SFOBB-DEV

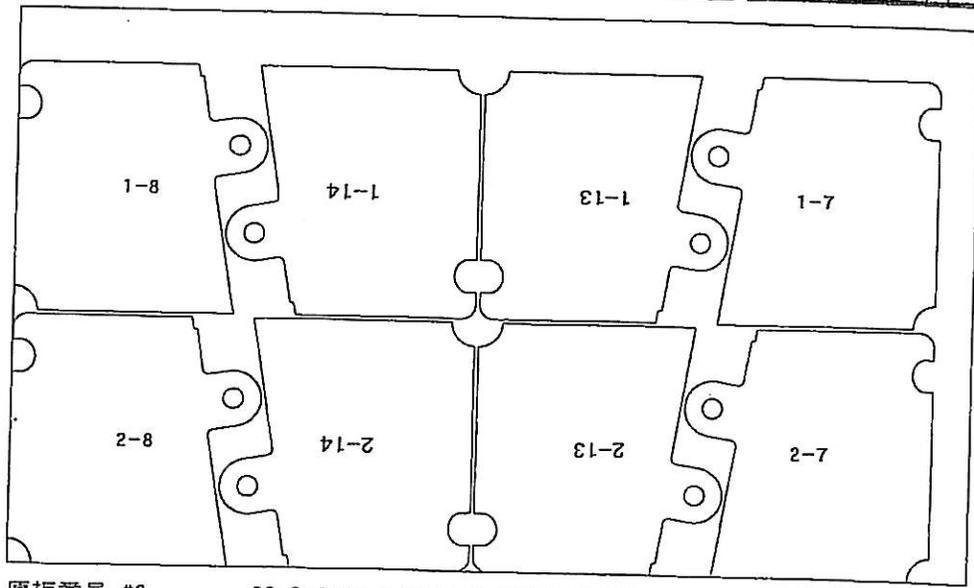
2/21

原板番号	材質	ランク	表面	原板サイズ	原板重量	部材重量	ロス率/歩留	部材/種類
✓ 2	ASTM A709M HPS	0	[-]	80.0x 2930.0x 5060.0	9313.0	7101.2	31.1 76.3	

部材番号	使用箇所	使用寸法	員数	部材マーク	重量	ネット率	備考
1007		80.0x 1310.9x 1310.1	1	1-7	887.6	82.3	
1008		80.0x 1310.9x 1310.1	1	1-8	887.6	82.3	
1013		80.0x 1310.9x 1310.1	1	1-13	887.6	82.3	
1014		80.0x 1310.9x 1310.1	1	1-14	887.6	82.3	
2007		80.0x 1311.0x 1310.1	1	2-7	887.7	82.3	
2008		80.0x 1311.0x 1310.1	1	2-8	887.7	82.3	
2013		80.0x 1311.0x 1310.1	1	2-13	887.7	82.3	
2014		80.0x 1311.0x 1310.1	1	2-14	887.7	82.3	

確認事項			確認	確認日	確認者
1	材番の確認				
2	材質の確認				
3	部材マークの確認				
4	部材員数の確認				
5					

枚番 338494-1



原板番号 #2 80.0*2930.0*5060.0 (ASTM A709M HPS 485WT) () (R = 0

板取管理シート

工号:SFOBB-DEV板手配

工事名:SFOBB-DEV

3/21

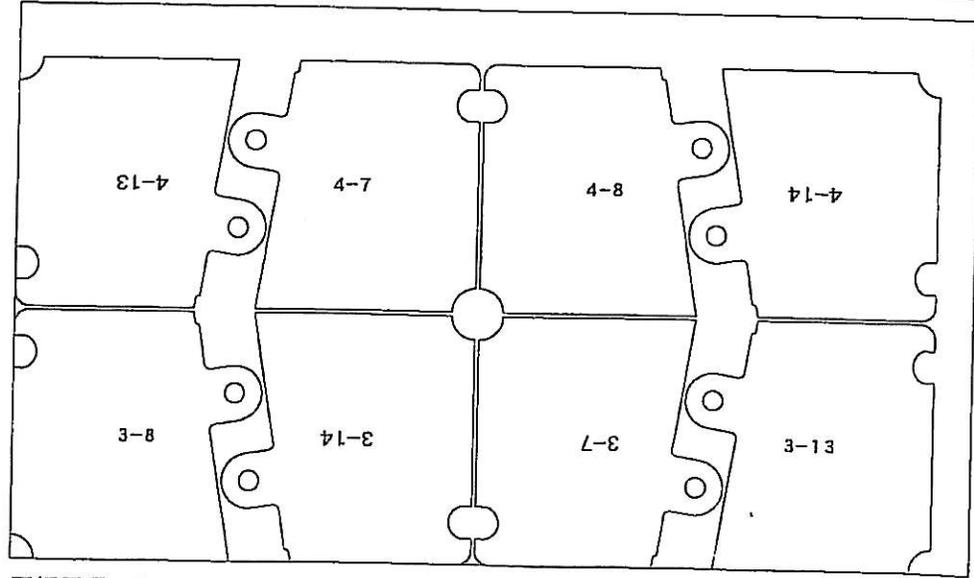
原板番号	材質	ランク	表面	原板サイズ	原板重量	部材重量	ロス率/歩留	部材/種類
3	ASTM A709M HPS	0	[-]	80.0x 2930.0x 5060.0	9313.0	7101.0	31.2 76.2	

485WT

部材番号	使用箇所	使用寸法	員数	部材マーク	重量	歩留率	備考
3007		80.0x 1310.9x 1310.1	1	3-7	887.6	82.3	
3008		80.0x 1310.9x 1310.1	1	3-8	887.6	82.3	
3013		80.0x 1310.9x 1310.1	1	3-13	887.6	82.3	
3014		80.0x 1310.9x 1310.1	1	3-14	887.6	82.3	
4007		80.0x 1310.9x 1310.1	1	4-7	887.6	82.3	
4008		80.0x 1310.9x 1310.1	1	4-8	887.6	82.3	
4013		80.0x 1310.9x 1310.1	1	4-13	887.6	82.3	
4014		80.0x 1310.9x 1310.1	1	4-14	887.6	82.3	

確認事項	確認	確認日	確認者
1 材番の確認			
2 材質の確認			
3 部材マークの確認			
4 部材員数の確認			
5			

材番 338494-2



原板番号 #3 80.0*2930.0*5060.0 (ASTM A709M HPS 485WT) () () R= 0

板取管理シート

工号:SFOBB-DEV板手配

工事名:SFOBB-DE

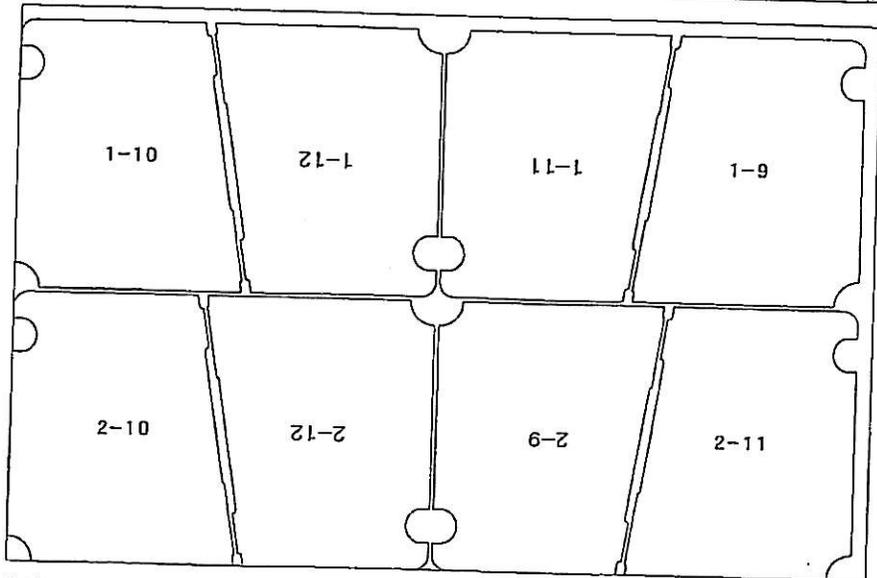
4/21

原板番号	材質	ランク	表面	原板サイズ	原板重量	部材重量	ロス率/歩留	部材/種類
4	ASTM A709M HPS 485WT	0	[-]	80.0x 2830.0x 4370.0	7768.0	7048.3	10.2 90.7	

部材番号	使用箇所	使用寸法	員数	部材マーク	重量	ロス率	備考
1009		80.0x 1368.8x 1152.9	1	1-9	881.0	88.9	
1010		80.0x 1368.8x 1152.9	1	1-10	881.0	88.9	
1011		80.0x 1368.8x 1152.9	1	1-11	881.0	88.9	
1012		80.0x 1368.8x 1152.9	1	1-12	881.0	88.9	
2009		80.0x 1368.8x 1152.9	1	2-9	881.0	88.9	
2010		80.0x 1368.8x 1152.9	1	2-10	881.0	88.9	
2011		80.0x 1368.8x 1152.9	1	2-11	881.0	88.9	
2012		80.0x 1368.8x 1152.9	1	2-12	881.0	88.9	

確認事項	確認	確認日	確認者
1 材番の確認			
2 材質の確認			
3 部材マークの確認			
4 部材員数の確認			
5			

枚番 338344-2



原板番号 #4 80.0*2830.0*4370.0 (ASTM A709M HPS 485WT) OR= 0

板取管理シート

工号:SFOBB-DEV板手配

工事名:SFOBB-DEV

5/21

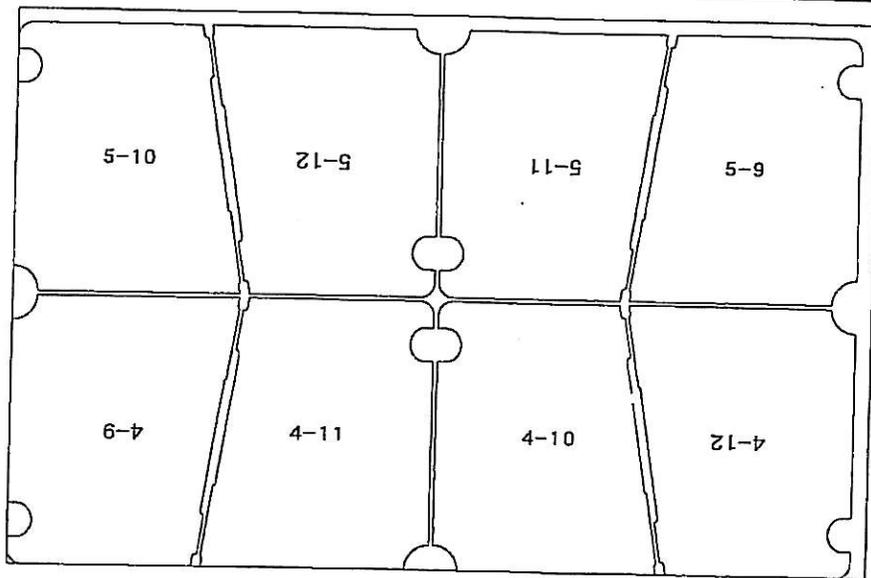
原板番号	材質	ランク	表面	原板サイズ	原板重量	部材重量	ロス率/歩留	部材/種類
5	ASTM A709M HPS	0	[-]	80.0x 2830.0x 4370.0	7768.0	7048.4	10.2 90.7	

485WT

部材番号	使用箇所	使用寸法	員数	部材マーク	重量	ネット率	備考
4009		80.0x 1368.8x 1152.9	1	4-9	881.1	88.9	
4010		80.0x 1368.8x 1152.9	1	4-10	881.0	88.9	
4011		80.0x 1368.8x 1152.9	1	4-11	881.0	88.9	
4012		80.0x 1368.8x 1152.9	1	4-12	881.0	88.9	
5009		80.0x 1368.8x 1152.9	1	5-9	881.0	88.9	
5010		80.0x 1368.8x 1152.9	1	5-10	881.0	88.9	
5011		80.0x 1368.8x 1152.9	1	5-11	881.0	88.9	
5012		80.0x 1368.8x 1152.9	1	5-12	881.0	88.9	

確認事項			
確認	確認日	確認者	
1			
2			
3			
4			
5			

枚番 338343-1



原板番号 #5 80.0*2830.0*4370.0 (ASTM A709M HPS 485WT) () R= 0

板取管理シート

工号:SFOBB-DEV板手配

工事名:SFOBB-DEV

9/21 P1

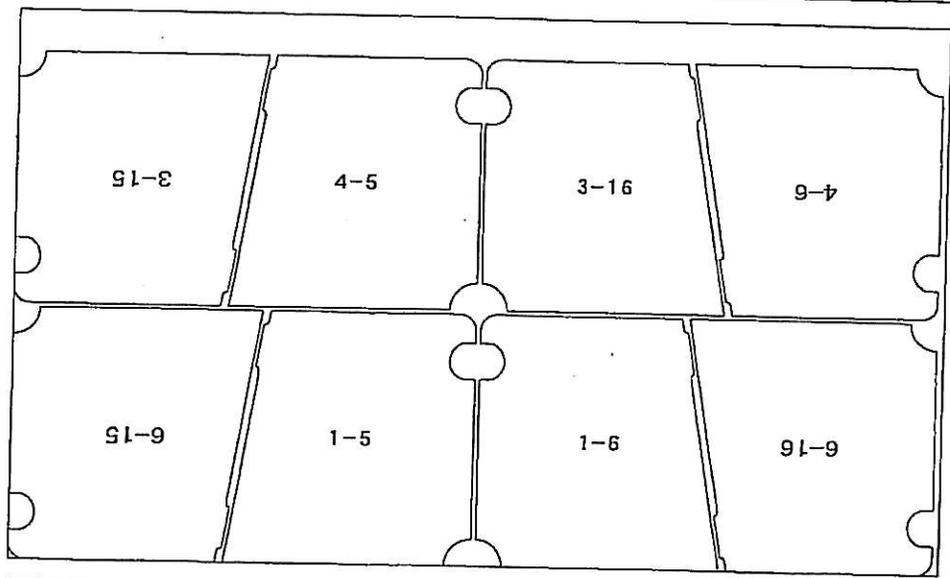
原板番号	材質	ラック	表面	原板サイズ	原板重量	部材重量	ロス率/歩留	部材/種別
✓ 9	ASTM A709M HPS	0	[-]	100.0x 2610.0x 4410.0	9035.0	7860.1	14.9 87.0	

485WT

部材番号	使用箇所	使用寸法	員数	部材マーク	重量	ネット率	備考
1005		100.0x 1195.1x 1171.5	1	1-5	982.6	89.4	
1006		100.0x 1195.1x 1171.5	1	1-6	982.6	89.4	
3015		100.0x 1195.0x 1171.5	1	3-15	982.5	89.4	
3016		100.0x 1195.0x 1171.5	1	3-16	982.5	89.4	
4005		100.0x 1195.1x 1171.5	1	4-5	982.6	89.4	
4006		100.0x 1195.1x 1171.5	1	4-6	982.6	89.4	
6015		100.0x 1195.0x 1171.5	1	6-15	982.5	89.4	
6016		100.0x 1195.0x 1171.5	1	6-16	982.5	89.4	

確認事項	確認	確認日	確認者
1 材番の確認			
2 材質の確認			
3 部材マークの確認			
4 部材員数の確認			
5			

材番 010264-1



原板番号 #9 100.0*2610.0*4410.0 (ASTM A709M HPS 485WT) (R= 0

板取管理シート

工号:SFOBB-DEV板手配

工事名:SFOBB-DEV

14/21

P1

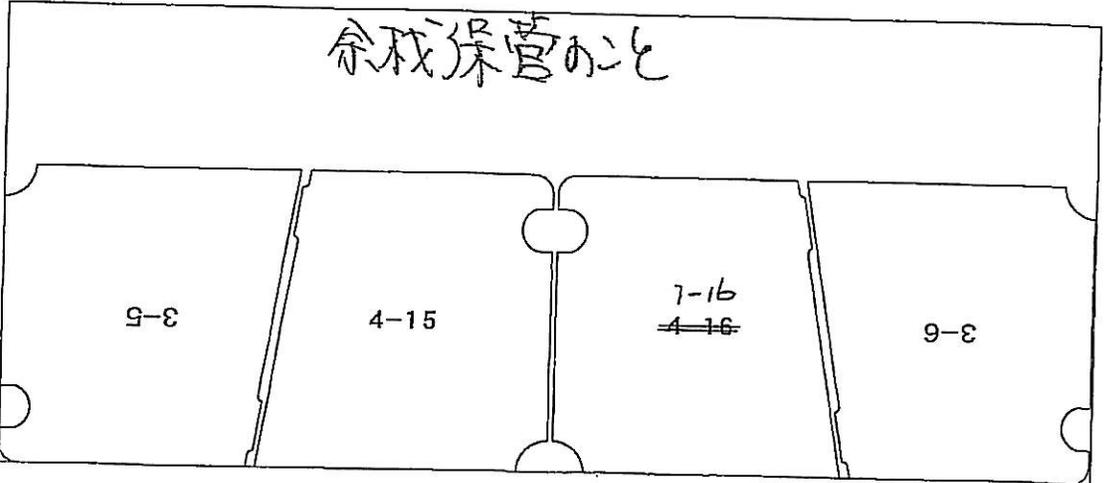
原板番号	材質	ランク	表面	原板サイズ	原板重量	部材重量	ロス率/歩留	部材/種類
✓ 35	ASTM A709M HPS	0	[-]	80.0x 1850.0x 4390.0	5101.0	3138.9	62.5 61.5	

485WT

部材番号	使用箇所	使用寸法	員数	部材マーク	重量	ネット率	備考
3005		80.0x 1193.1x 1171.5	1	3-5	784.7	89.4	
3006		80.0x 1193.1x 1171.5	1	3-6	784.7	89.4	
4015		80.0x 1193.1x 1171.5	1	4-15	784.7	89.4	
4016		80.0x 1193.1x 1171.5	1	4-16	784.7	89.4	

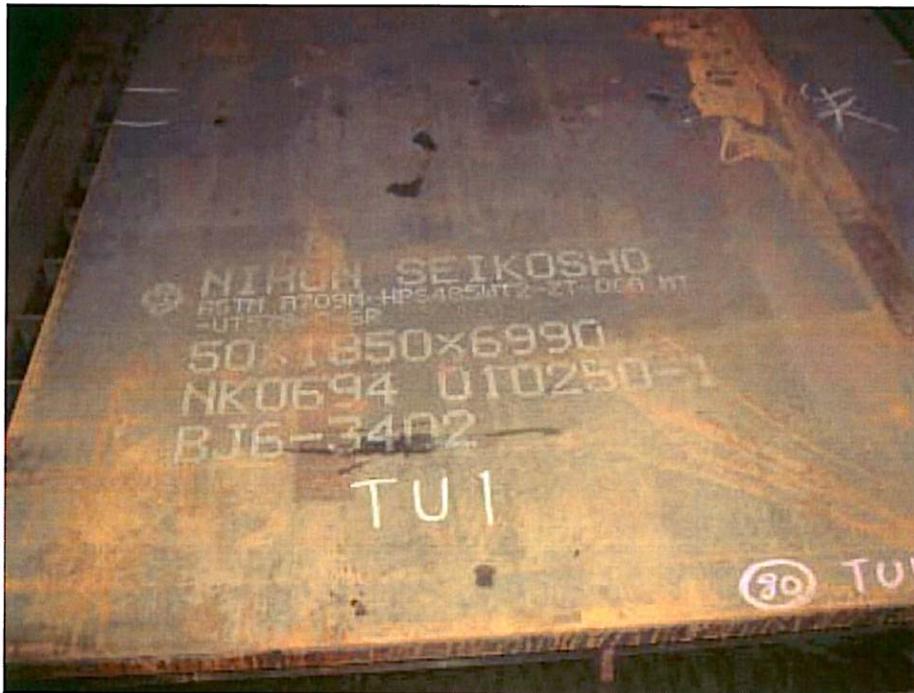
確認事項	確認	確認日	確認者
1 材番の確認			
2 材質の確認			
3 部材マークの確認			
4 部材員数の確認			
5			

枚番 010302-2

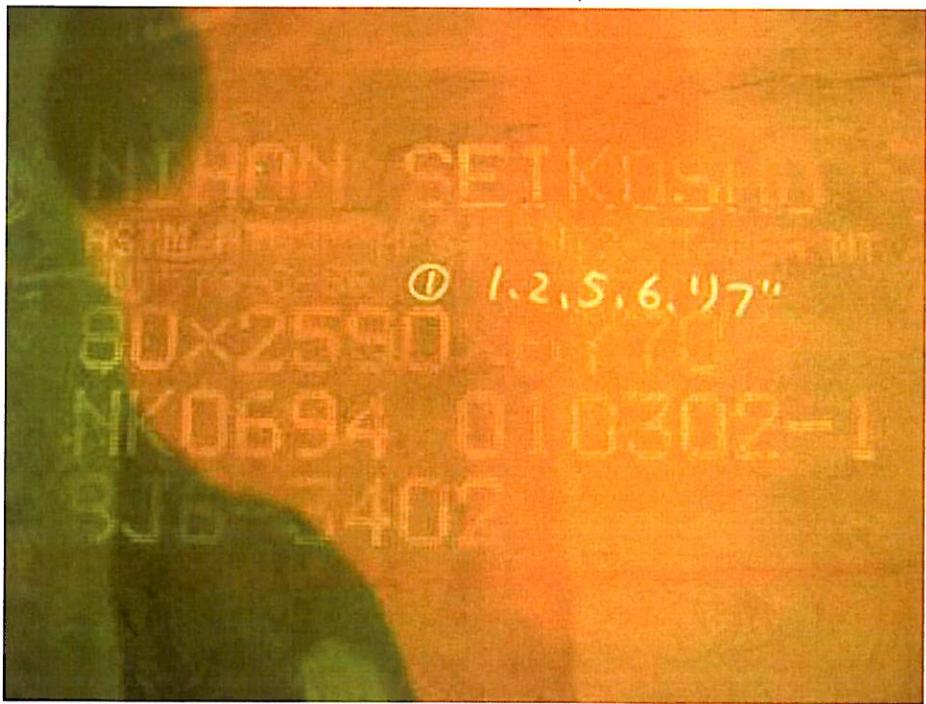


余材保管のため

原板番号 #35 80.0*1850.0*4390.0 (ASTM A709M HPS 485WT) () R= 0



No. 80
50 x 1850 x 6990
PL.No. 010250-1
CAST No. NK0694



No. 1
80 x 2590 x 6770
PL.No. 010302-1
CAST No. NK0694



No. 2

80 x 2930 x 5060

PL.No. 338494-1

CAST No. NK0694



No. 3

80 x 2930 x 5060

PL.No. 338494-2

CAST No. NK0694

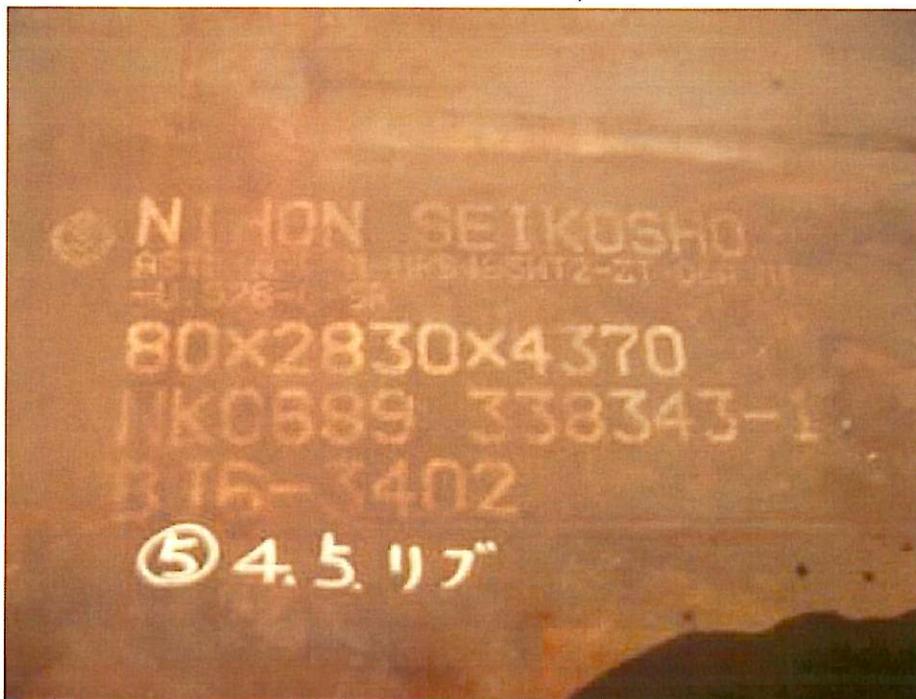


No. 4

80x2830x4370

PL.No. 338344-2

CAST No. NK0691



No. 5

80x2830x4370

PL.No. 338343-1

CAST No. NK0689



No. 32

80 x 2930 x 4360

PL.No. 338344-1

CAST No. NK0691

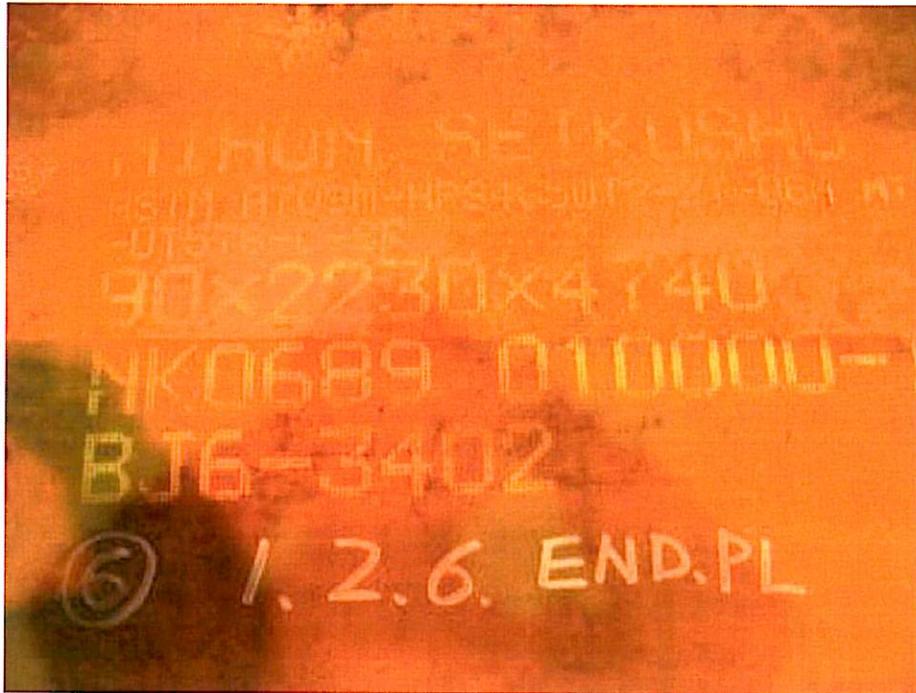


No. 35

80 x 1850 x 4390

PL.No. 010302-2

CAST No. NK0694

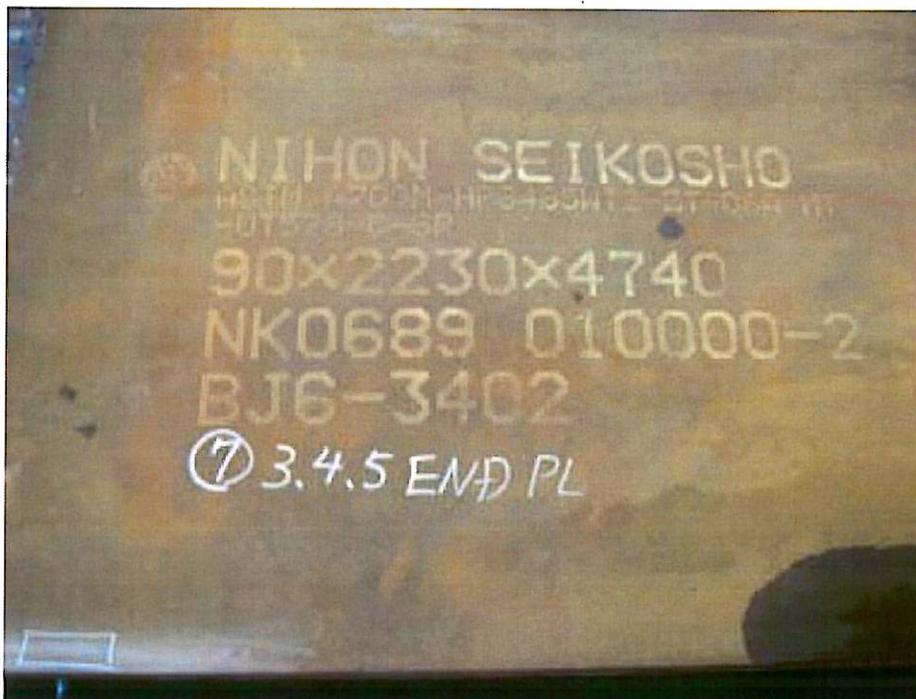


No. 6

90 x 2230 x 4740

PL.No. 010000-1

CAST No. NK0689



No. 7

90 x 2230 x 4740

PL.No. 010000-2

CAST No. NK0689

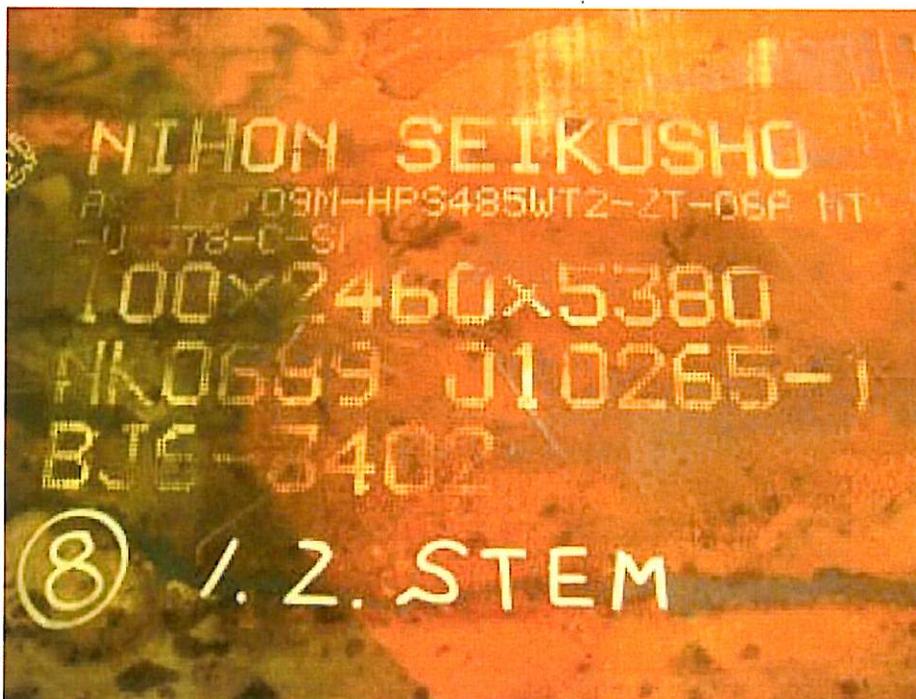


No. 9

100x2610x4410

PL.No. 010264-1

CAST No. NK0691



No. 8

100x2460x5380

PL.No. 010265-1

CAST No. NK0689

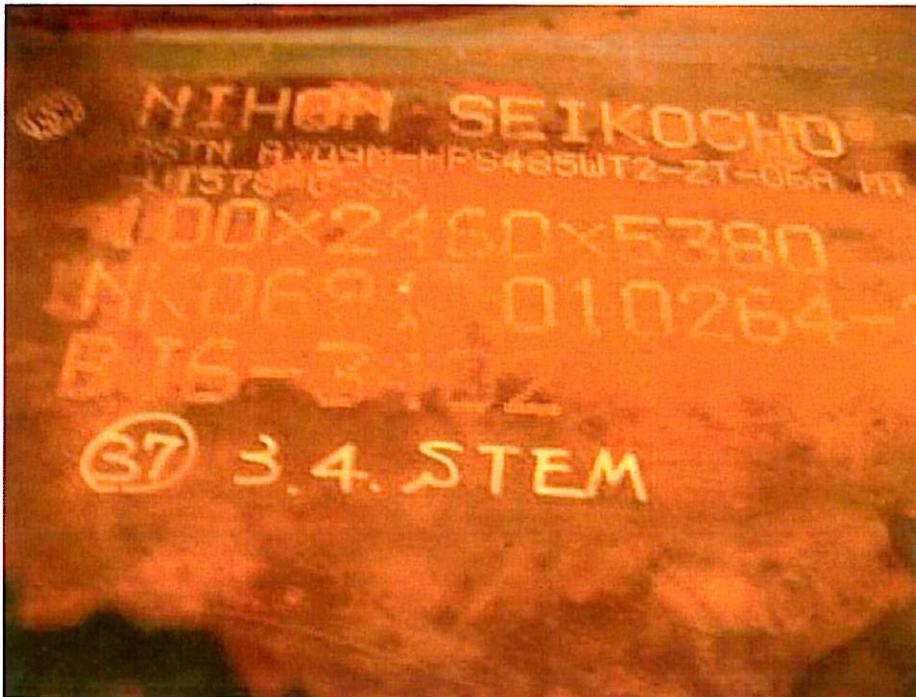


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100 x 2460 x 5380

PL.No. 010265-2

CAST No. NK0689

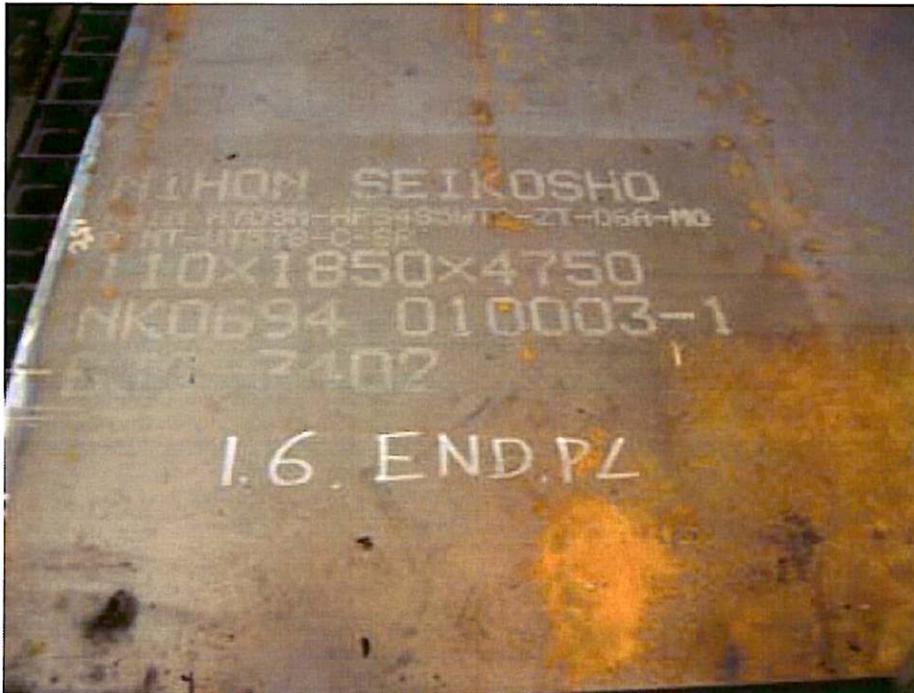


No. 37

100 x 2460 x 5380

PL.No. 010264-2

CAST No. NK0691



No. 10

110x1850x4750

PL.No. 010003-1-1

CAST No. NK0694



No. 39

110x1850x4750

PL.No. 010003-2

CAST No. NK0694

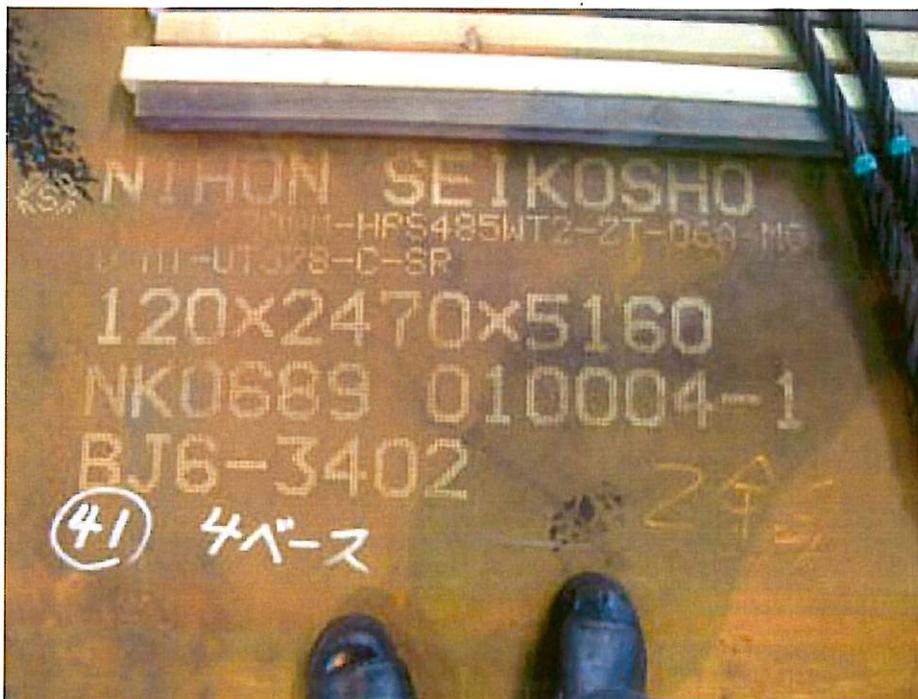


No. 11

120x2470x5370

PL.No. 010002-1

CAST No. NK0689

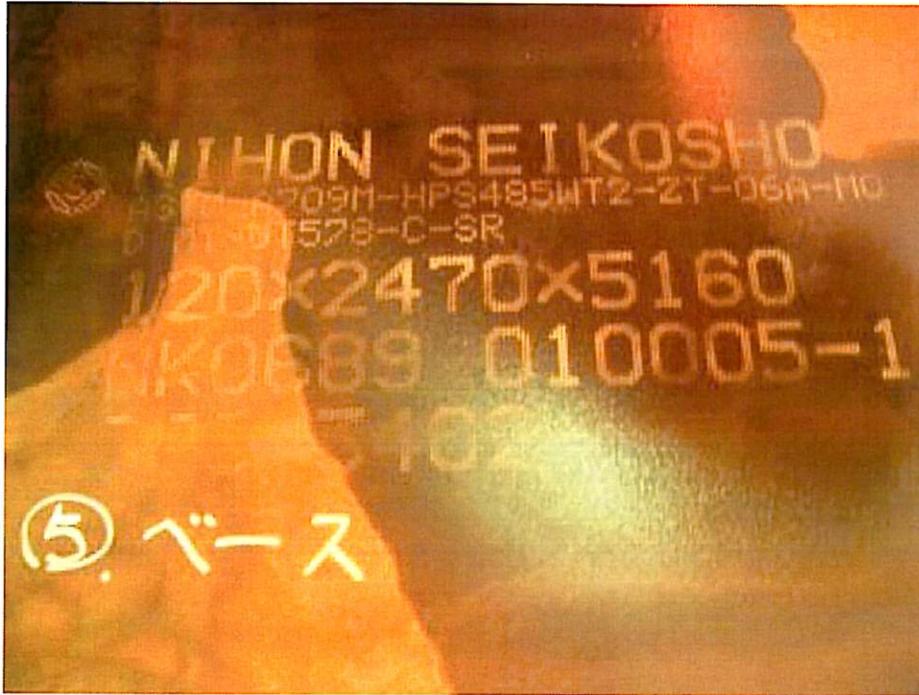


No. 41

120x2470x5160

PL.No. 010004-1

CAST No. NK0689



No. 66

120x2470x5160

PL.No. 010005-1

CAST No. NK0689



No. 40

120x2170x5160

PL.No. 010249-1

CAST No. NK0691



No. 12

120x2470x5160

PL.No. 010266-1

CAST No. NK0689

Summary for Material List of ASTM A709M Gr. HPS485W for West Deviation Saddle

Order Date	Delivery Date	Shipping Weight (ton)	Plate Size			Quantities	Cast no.	Plate No.
			Thick. (mm)	Width (mm)	Length (mm)			
Aug. 02, 2007	Dec. 11, 2007	5.075	50	1850	6990	1	NK0694	010250-1
		11.009	80	2590	6770	1	NK0694	010302-1
		9.313	80	2930	5060	1	NK0694	338494-1
		9.313	80	2930	5060	1	NK0694	338494-2
		7.768	80	2830	4370	1	NK0691	338344-2
		8.020	80	2930	4360	1	NK0691	338344-1
		5.101	80	1850	4390	1	NK0694	010302-2
		7.468	90	2230	4740	1	NK0689	010000-1
		7.468	90	2230	4740	1	NK0689	010000-2
		9.035	100	2610	4410	1	NK0691	010264-1
		10.386	100	2460	5380	1	NK0689	010265-1
		10.386	100	2460	5380	1	NK0689	010265-2
		10.386	100	2460	5380	1	NK0691	010264-2
		7.588	110	1850	4750	1	NK0694	010003-1
		7.588	110	1850	4750	1	NK0694	010003-2
		12.491	120	2470	5370	1	NK0689	010002-1
		12.010	120	2470	5160	1	NK0689	010001-1
		12.010	120	2470	5160	1	NK0689	010004-1
		12.010	120	2470	5160	1	NK0689	010005-1
		12.010	120	2470	5160	1	NK0689	010249-1
12.010	120	2470	5160	1	NK0689	010266-1		
7.768	80	2830	4370	1	NK0689	338343-1		
7.768	80	2830	4370	1	NK0689	338343-2		

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:** Murooran, Japan**Report No:** NCS-000037**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 08-May-2008**Submitting Contractor:** Japan Steel Works**NCR #:** JSW-0002**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: 10-Apr-2008**Description of Non-Conformance:**

Japan Steel Works (JSW) received HPS 485 steel plate and completed cutting operations for fabrication of the West Deviation Saddle segments without providing notification to METS and ABF's QC inspectors.

Twenty three HPS 485 steel plates were reportedly received around the middle of December, 2007. Plate cutting was reportedly started on February 22, 2008. Currently, twenty two of the twenty three plates have been cut. Cut plates are marked with piece number only.

Cut plates materials will be used for fabricate of W2E1, W2E2, W2E3, W2W1, W2W2 and W2W3 segments.

Contractor's proposal to correct the problem:

JSW proposed to provide the following:

1. Plate cut location diagram indicating plate numbering sequence.
2. Conduct chemical testing of the cut plates using a portable X-Ray Fluorescence Metal Analyzer for comparison with MTRs.

JSW proposes to use the existing pieces to structure components of West Deviation Saddle. Based on NPR 0033R00, JSW had provided the following documents.

1. Control plan for cutting operation is shown in attachment 1. "Follow of Plate Material". The following documents referred in allachment1 were also enclosed.

List of attachments:

- Attachment 2 - Order sheet from JSW, providing with technical requirements
- Attachment 3 - Delivery documents issued by Nippon Steel Corporation
- Attachment 4 - Receiving notice issued by JSW's procurement Group
- Attachment 5 - Certified Material Test Reports issued by Nippon Steel Corporation

