

4 1/2"

Weight: 13.50 lb/ft

Remaining:

Grade: 13%cr95

Length: 7,769m

Connection: Hydril 513

Joints: 638pcs

Range: R3

N083

BJ12 YGK12903

Certificate No. (Invoice No.) : NA0703Y356

Order No. : ZE00537-001

Shipper

Customer : MARUBENI-ITOCHU STEEL INC.

Customer's Serial No.

Customer's Control No. 3

Commodity : SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name

Effective Year:

Specification: JFE-13CR95 TUBING (PE)

Size

QD4-1/2"X13.05LBSXR3MA40'

Quantity

605 Mass : 142,533 Kg Total Length : 24,076.6 F

Ship No. : Construction No. :

MFG. No. Heat No.		Chemical Composition (%)														JIS Heat Analysis P. Product Analysis										Hydrostatic Test	9800PSI (5SEC.)	Bend Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq	X1000			X1000			X100																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
73985-02 (10)	2-72092	220	100	100	20	1025	501400	X100			X1000			X1000			X1000			X100			N.D.E.			MT: GOOD	Flattening Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		150	25	25	20	1025	1200	501400			501400			501400			501400			501400			UT: GOOD			Flattening Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		200	34	40	12	1	1	121291	501400			501400			501400			501400			501400			GOOD			Drift Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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73985-02 (10)	2-72092	200	34	39	11	1	1	121300	501400			501400			501400			501400			501400			501400			Round																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Tensile Test														Impact Test			Grain Size			[Remarks] SPECIFICATION : API5CT 8TH EDITION, JULY 2005 HEAT TREATMENT AUSTENITIZING, AIR COOLING & TEMPERING MIN. TEMPERING TEMPERATURE 640°C JFE-SML-99- 52 REV. 6 JFE-SML-99-132 REV. 5 PROCESS : BASIC OXYGEN CONVERTER HARDNESS TEST : REFER TO ATTACHMENT 1																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		Parent (A370) Yle ()		Direction L (2")		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)					Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0" C)		Direction L (0"	

NOR3

BJ12 YGK12903

Certificate No. (in order No.) NA0703Y356

Order No. ZE00537-001

Shipper

MARUBENI-ITOCHU STEEL INC.

Customer

INSPECTION CERTIFICATE

JFE Steel Corporation
CHITA WORKS1, Kawasaki-cho 1-chome, Hama-City, Aichi Pref. 475-8611
Japan

Date : MARCH 15, 2007

JC-04

3/11

Customer's Control No. 3

Reference No. :

Commodity SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name

Effective Year:

Specification: JFE-13CR95 TUBING (PE)

Size

QD4-1/2" X 13.05 LBSXR3MA40'

Quantity

605 Mass

142,533 Kg

Total Length

24,076.6 F

Ship No. :

Construction No. :

Chemical Composition (%)

MFG. No. Heat No.		Chemical Composition (%)														Heat Analysis P: Product Analysis										9800PSI (5SEC.)	Bend Test			
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq	Hydrostatic Test			Flattening Test									
73985-03 (49)	2-72086	X1000														X1000										GOOD	GOOD			
		X100														X1000												N.D.E.		
		X100														X100													Visual Observation	GOOD
		X100														X100														
max. H 220 100 100 20 10 25 50 1400														X1000										Tensile Specimen	Round					
min. H 150 25 1200														X100												Full Sec.				
max. P 220 100 100 20 10 25 50 1400														X1000													Full Sec.			
min. P 150 25 1200														X100														Full Sec.		
max. H 200 26 47 12 1 121297														X1000										Full Sec.						
min. H 200 27 45 12 1 121300														X1000											Full Sec.					
max. P 200 27 45 12 1 121300														X1000												Full Sec.				
min. P 200 27 45 12 1 121300														X1000													Full Sec.			
Tensile Test														Tensile Test										Full Sec.						

Tensile Test

Impact Test

Grain Size

Remarks

SPECIFICATION :
API SPEC 8TH EDITION, JULY 2005
HEAT TREATMENT
AUSTENITIZING, AIR COOLING & TEMPERING
MIN. TEMPERING TEMPERATURE 640°C
JFE-SML-99-52 REV.6
JFE-SML-99-132 REV.5
PROCESS : BASIC OXYGEN CONVERTER
HAEDNESS TEST : REFER TO ATTACHMENT 1

IN-SPEC-KOBE LTD.

T. Mori

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS.

Manager, Quality Assurance Sec.



Manager, Quality Assurance Sec.

NOR3

BJ12 Y:K12903

Certificate No (Invoice No.): NA0703Y356

Order No. 7E00537-001

Shipper

MARUBENI-ITOCHU STEEL INC.

Customer

Customer's Control No.

Commodity : SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name :

Specification: JFE-13CR95 TUBING (PE)

Size : OD4-1/2" X 13.05/BSXR3MA40'

Quantity : 605 Mass : 142,533 Kg Total Length : 24,076.5 F

Ship No. : Construction No. :

MFG. No.	Heat No.	Chemical Composition (%)												Heat Analysis P: Product Analysis				Hydrostatic Test	9800PSI (5SEC.)	Bend Test
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq			
		X1000	X100	X100	X1000	X1000	X100	X100	X100	X100	X1000	X1000	X1000	X1000	X1000	X1000	X100			
73985-03 (79)		220	100	100	20	10	25	50	1400										GOOD	
		150	25					1200											MT: GOOD	Flattening Test
		220	100	100	20	10	25	50	1400										UT: GOOD	Flaring Test
		150	25					1200											GOOD	Drift Test
		H 200	26	47	12	1	1	12	1297										Strip	ASTM 1"
		P 200	27	45	12	1	1	12	1300										Round	
		P 200	27	45	12	1	1	12	1300										Full Sec.	
		Tensile Test												Impact Test		Grain Size		Remarks		
		Parent (A370) Weld ()																		
		Direction (L) GL(2°)												Direction L (0° C)		Spec: ASTM				
		Y.P. or S. T.S. EL. Y.R. T.S. Weld												L.V. or A.E.		Shear Area (%)				
		KSI												2V 10X5.0 min.						
		min												EACH		AVE.				
		950	1050	15										min	170	190				
		950	1190	25											894	873	100	100	105	
															862	100	100			
		967	1281	24											862	100	100			

IN-SPEC: KOBE, LTD.

T. Mori

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS.

Manager, Quality Assurance Sec.

INSPECTION CERTIFICATE

JC-04 5/ 11

JFE Steel Corporation

CHITA WORKS

1, Kawasaki-cho 1-chome, Handa-City, Aichi Pref. 475-8611
Japan

JFE

Date MARCH 15, 2007

Reference No. :

Effective Year :



日本製鉄株式会社
品質保証部



JC-04 6/11
JFE Steel Corporation

JC-04 6/11
JFE Steel Corporation
CHITA WORKS
1, Kawasaki-cho 1-chome, Handa-City, Aichi Pref. 475-8611
Japan
Date : MARCH 15, 2007

N083 BJ12 'GK12903

Order Invoice No (Invoice No.) - NA0703Y356

Order No. : 7E00537-001

Shipper :MARUBENI-ITOCHU STEEL INC

Customer : :-

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Customer's Control No. 3

Commodity : SEAMLESS STEEL TUBING IPE-13CR95 PLAIN END

Project Name:

Effective Year:

Specification: IFF-13CR95 TUBING (PE)

Size : 0D4-1/2" X 13.051BSYB3WA10.

Quantity : 605 Mass : 142 533 K^g

Total Length : 24,076.6 F

Ship No.: Construction No.:

MFG. No. Heat No.		Chemical Composition (%)														II: Heat Analysis P: Product Analysis										9800PSI (5SEC.)	Bond Test
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Caq	Hydrostatic Test	Flattening Test	Flaring Test	Drift Test	ASTM 1"					
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.						
		220	100	100	20	1025	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200	50	1400	1200				50	1400	1200
		150	25	25	1	1	1	151290	141300	141300	1	1	1	1	1	1	1	1	1	1	1				1	1	1
73985-04 (44)		X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		N.D.E.		Visual Dimension	GOOD	GOOD			
		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.																

IN-SPEC KOB-17D

10000

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS.

Manager, Quality Assurance Sec.

第一冊 NB3

NY 33

NO.83 BJ12 YGK12903

Certificate No. (Invoice No.) NAO703Y356

Order No. ZE00527-001

Shipper

MARUBENI-ITOCHU STEEL INC.

Customer

Invent's Control No. 1

Commodity : SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name :

Specification JFE-13CR95 TUBING (PE)

Size : OD4-1/2" X 13.05 LBSXR3MA40

Quantity : 605 Mass : 142,533 Kg Total Length : 24,076.6 F

Ship No. :

Construction No. :

INSPECTION CERTIFICATE

JFE Steel Corporation
CHITA WORKS
1, Kawasaki-cho 1-chome, Hama-City, Aichi Pref. 475-8611
Japan

JC-04

7/11

JFE

Date : MARCH 15, 2007

Reference No. :

Effective Year :

MFG. No.	Heat No.	Chemical Composition (%)													H: Real Analysis P: Product Analysis										9800PSI (5SEC.)	Hydrostatic Test	Bend Test						
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq	Grain Size			Remarks												
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		N.T: GOOD UT: GOOD	N. D. E.	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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		H	150	25																													
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73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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		H	150	25																													
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73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
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		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)	1-86032	X1000		X100		X1000		X100		X1000		X1000		X1000		X1000		X100		X1000		X1000		X100		Visual Dimension	GOOD	GOOD	GOOD				
		max.	220	100	100	20	1025	50	1400																								
		H	150	25																													
		min.	220	100	100	20	1025	50	1400																								
73985-06 (80)																																	

IN-SPEC KOBE LTD.

T. Mori

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS.

Manager, Quality Assurance Sec.



NB3

JC-94 8/11
JFE Steel Corporation
CHITA WORKS

JC-04 8/11
JFE Steel Corporation
HITA WORKS
Kawasaki-cho 1-dome, Handa-City, Aichi Pref. 475-8611
Japan
Date : MARCH 15, 2007

Certificate No {Invoice No : NA0703V35B}

Shipper :MARUBENI-IT

F

FREE LODGING FE-13CR99 PLAIN END

Specification: JFE-13CR95 TURNING (DB)

Size
0D4-1/2"X13.05LBSXR3MA40'

144.933	total length	24.076.6 F
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Construction No.: _____

THE SILENT NOISE LTD.
T.M.

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS OF THE SPECIFICATION(S).

一、宏固旧/15/

1980年11月

N083

EJ12 YGK12903

Certificate No (Invoice No.) : NA0703Y356

Order No.

7E00537-001

Shipper

MARUBENI-ITOCHU STEEL INC.

Customer

Customer's Control No. 3

Customer's Control No. 3

Commodity : SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name

Specification: JFE-13CR95 TUBING (PE)

Size

OD4-1/2" X 13.05LBSXR3MA40

Quantity

605 Mass : 142,533 Kg

Total Length : 24,076.6 F

Ship No. :

Construction No. :

INSPECTION CERTIFICATE



JFE

JC-04

9/11

JFE Steel Corporation

CHITA WORKS

1, Kawasaki-cho 1-chome, Handa-City, Aichi Pref. 475-8611

Japan

Date : MARCH 15, 2007

Reference No. :

Effective Year :

MFG. No. Heat No.	Chemical Composition (%)															H: Heat Analysis P: Product Analysis										Hydrostatic Test	9800PSI (5SEC.) GOOD	Bend Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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N083

BJ12 YGK12903

Certificate No. (Invoice No.): NA0703Y356

Order No. 7E005527-001

Shipper

MARUBENI-ITOCHU STEEL INC.

Customer

(Seller's Detail %)

Customer's Control No. 3

Commodity SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name

Specification: JFE-13CR95 TUBING (PE)

Size

QD4-1/2" X 13.05 LRSXR3MA40

Quantity

605 Mass 142.533 Kg

Total Length: 24.076.5 F

Ship No.: Construction No.:

INSPECTION CERTIFICATE



JFE

JC-04

10/ 11

JFE Steel Corporation

CHITA WORKS

1, Kawasaki-cho 1-chome, Hama-City, Aichi Pref. 475-8611 Japan

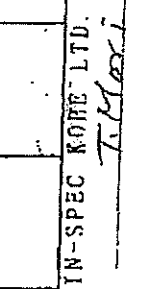
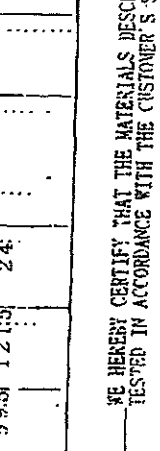
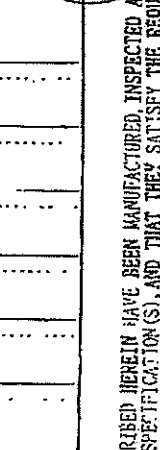
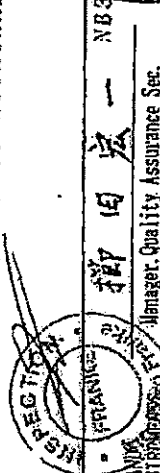
Date: MARCH 15, 2007

Reference No.:

MFG. No.		Heat No.		Chemical Composition (%)													II. Heat Analysis P. Product Analysis										9800PSI (5SEC.)		Bend Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
				C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq	Hydrostatic Test	GOOD	Flattening Test	GOOD	Flaring Test	GOOD	Drift Test					GOOD	ASTM 1"	Strip	Round	Full Sec.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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Remarks:

SPECIFICATION :
API5CT 8TH EDITION, JULY 2005
HEAT TREATMENT
AUSTENITIZING, AIR COOLING & TEMPERING
MIN. TEMPERING TEMPERATURE 640°C
NDE : ULTRASONIC OD & ID, L & T N5
JFE-SML-99-52 REV. 6
JFE-SML-99-132 REV. 5
PROCESS : BASIC OXYGEN CONVERTER
HAEDNESS TEST : REFER TO ATTACHMENT 1



IN-SPEC KONE LTD.

T. Mori

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS OF THE Manager, Quality Assurance Sec.

NO53 BJI2 VGR12903

Certificate No. Gwener No. NA0703Y356

Order No. : 7E00537-001

Shipper : MARUBENI-INOCHU STEEL INC.

Customer

Customer's Control No. 3

Commodity : SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name :

Specification : JFE-13CR95 TUBING (PE)

Size : OD4-1/2" X 13.05 LBSXR3MA40'

Quantity : 605 Mass 142,533 kg Total Length 24,076.6 F

Ship No. : Construction No. :

INSPECTION CERTIFICATE



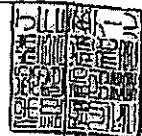
JFE Steel Corporation
CHITA WORKS
1, Kawasaki-cho 1-chome, Hama-City, Aichi Pref. 475-8611
Japan
Date : MARCH 15, 2007

Reference No. :

Effective Year :

		Chemical Composition (%)															H: Heat Analysis P: Product Analysis										9800PSI (5SEC.)		Bend Test									
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq					Hydrostatic Test		Flattening Test		Flaring Test		Drift Test										
		X1000		X100		X1000		X100				X1000		X1000		X10000						N.D.E.		MT: GOOD UT: GOOD		GOOD		GOOD										
MFG. No.	Heat No.																																					
73985-10 (50)	1-86030																																					
		Tensile Test															Impact Test										Grain Size											
		Parent (A370) Yield ()															Direction L ()										Spec. ASTM											
		T.S. EL. Y.R. T.S. weld															I.V. or A.E.										Shear Area (%)											
		KSI															2V 10X5.0										min.											
		1100 950 1050 15															EACH AVE.										190											
		99.4 1210 22															853 844 830										100 100 100											
		96.7 119.1 24																																				

SPECIFICATION :
API SPEC 8TH EDITION, JULY 2005
HEAT TREATMENT
AUSTENITIZING, AIR COOLING & TEMPERING
MIN. TEMPERING TEMPERATURE 640°C
TEST METHOD : ULTRASONIC OD & ID, L & T N5
JFE-SML-99-52 REV. 6
JFE-SML-99-132 REV. 5
PROCESS : BASIC OXYGEN CONVERTER
HAEDNESS TEST : REFER TO ATTACHMENT 1



INSPECTION
T. Mori
Manager, Quality Assurance Sec.

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS

IN-SPEC KOBE LTD.

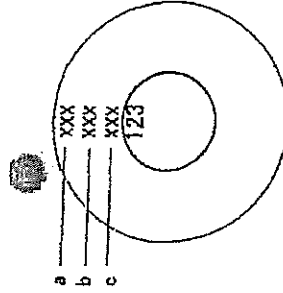
ATTACHMENT 1

HARDNESS TEST

CERTIFICATE NO.: NAO703Y356

ORDER NO.: 7E00537-001

HRC. Max. 27.0



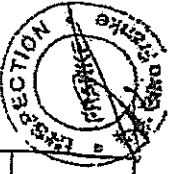
PAGE: 1/3



a: OUTSIDE
b: CENTER
c: INSIDE

MFG. NO.	HEAT NO.	1	2	3	AVE.
73985-01	1-86034	a 24.5 b 25.6 c 25.6	25.0 25.7 25.0	24.9 25.8 25.3	24.8 25.7 25.3
"	"	a 24.5 b 26.0 c 24.9	24.7 25.8 24.7	24.9 25.9 24.2	24.7 25.9 24.6
"	"	a 24.8 b 25.6 c 25.1	25.3 26.0 24.8	24.8 25.8 24.9	25.0 25.8 24.9
"	"	a 25.4 b 25.8 c 25.2	25.2 26.1 25.1	25.5 26.1 24.8	25.4 26.0 25.0
"	"	a 24.5 b 25.8 c 25.0	25.0 25.9 25.2	24.4 26.1 25.1	24.6 25.9 25.1
"	"	a 24.7 b 25.5 c 25.1	25.0 25.5 25.2	24.5 25.7 24.8	24.7 25.6 25.0
"	"	a 25.1 b 25.7 c 25.0	25.4 25.8 25.1	25.5 25.8 25.4	25.3 25.8 25.2
"	"	a 24.7 b 26.0 c 25.0	24.8 26.0 25.1	24.4 25.7 25.4	24.6 25.9 25.2

MFG. NO.	HEAT NO.	1	2	3	AVE.
73985-01	1-86034	a 25.3 b 26.3 c 26.0	25.0 26.2 25.3	25.1 25.9 25.3	25.1 26.1 25.5
73985-02	2-72092	a 24.7 b 25.4 c 24.5	24.9 25.5 24.6	25.0 25.5 24.4	24.9 25.5 24.5
73985-03	2-72086	a 24.5 b 25.8 c 25.7	25.0 25.7 25.1	25.2 25.8 25.2	24.9 25.8 25.3
73985-05	2-72088	a 24.6 b 25.0 c 24.8	24.4 25.3 24.5	25.0 25.1 24.5	24.7 25.1 24.6
73985-03	2-72086	a 24.4 b 25.8 c 24.6	25.2 26.1 24.7	25.2 25.8 24.7	24.9 25.9 24.7
"	"	a 24.2 b 25.8 c 25.0	24.6 25.4 24.5	24.8 25.3 25.1	24.5 25.5 24.9



HARDNESS TEST

ATTACHMENT 1

CERTIFICATE NO.: NA0703Y356

ORDER NO.: 7E00537-001

HRC Max 27.0

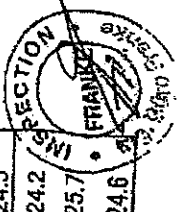
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b: XXX
c: XXX
123

PAGE: 2/3

a: OUTSIDE
b: CENTER
c: INSIDE

MFG. NO.	HEAT NO.	1	2	3	AVE.
73985-03	2-72086	a 24.1 b 25.1 c 24.0	23.8 25.8 24.2	24.1 25.5 24.5	24.0 25.5 24.2
"	"	a 24.6 b 25.9 c 25.4	24.8 25.8 25.0	25.3 25.8 24.8	24.9 25.8 25.1
73985-04	2-72089	a 24.4 b 25.7 c 25.1	24.3 25.9 25.2	25.1 25.4 25.0	24.6 25.7 25.1
"	"	a 24.1 b 25.1 c 24.8	24.2 25.5 24.8	24.4 25.6 24.3	24.2 25.4 24.6
"	"	a 25.3 b 25.7 c 25.2	25.2 26.1 25.7	25.3 25.8 25.0	25.3 25.9 25.3
73985-06	1-86032	a 25.5 b 26.3 c 25.0	25.3 26.2 25.6	25.5 26.1 25.9	25.4 26.2 25.5
"	"	a 25.5 b 26.1 c 26.0	25.8 26.7 26.0	25.1 26.7 26.3	25.5 26.5 26.1
"	"	a 25.4 b 26.7 c 25.9	25.0 26.3 25.4	26.0 26.3 26.0	25.5 26.4 25.8

MFG. NO.	HEAT NO.	1	2	3	AVE.
73985-06	1-86032	a 25.1 b 25.8 c 24.9	25.1 26.1 25.2	24.9 26.2 25.5	25.0 26.0 25.2
73985-07	1-85381	a 24.8 b 26.1 c 24.9	24.8 25.9 25.6	24.9 25.9 25.2	24.8 26.0 25.2
"	"	a 25.0 b 26.0 c 25.1	25.6 26.3 24.8	25.7 26.0 25.4	25.4 26.1 25.1
73985-08	1-86035	a 25.2 b 26.2 c 25.5	25.3 26.1 25.2	25.9 26.1 25.4	25.5 26.1 25.4
73985-09	1-86036	a 25.5 b 25.8 c 24.8	25.1 25.9 25.9	25.5 25.9 25.6	25.4 25.9 25.4
"	"	a 24.1 b 25.2 c 24.5	24.4 25.3 24.5	24.6 25.2 25.1	24.4 25.2 24.7
"	"	a 24.8 b 25.4 c 24.5	24.8 25.6 24.8	24.4 25.6 24.1	24.7 25.5 24.5
"	"	a 24.2 b 25.9 c 24.1	24.0 25.7 25.0	24.3 25.4 24.7	24.2 25.7 24.6



HARDNESS TEST

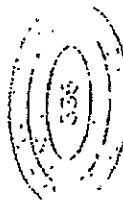
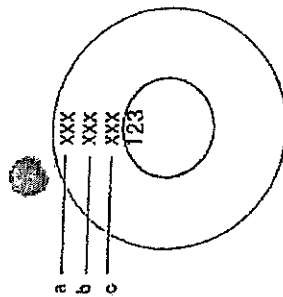
ATTACHMENT 1

CERTIFICATE NO.: NAO703Y356

ORDER NO.: 7E00537-001

HRC, Max. 27.0

PAGE: 3/3



T. Mori

a: OUTSIDE
b: CENTER
c: INSIDE

MFG. NO.	HEAT NO.				AVE.
		1	2	3	
73985-10	1-86030	a	24.1	24.3	24.3
		b	24.3	24.4	24.4
		c	23.6	23.5	23.7
"	"	a	24.1	24.6	24.3
		b	25.3	24.9	24.9
		c	23.8	23.0	23.4
"	"	a	23.3	23.8	23.5
		b	24.6	24.8	24.5
		c	23.5	23.2	23.5
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			

MFG. NO.	HEAT NO.				AVE.
		1	2	3	
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			



N083 BJ12 YCR12963

Certificate No. (Invoice No.) NA0704Y572

Order No. 7E00537-001

Shipper MARUBENI-ITOCHU STEEL INC.

Customer

INSPECTION CERTIFICATE



JC-04 2/ 3

JFE Steel Corporation

1 Kawasaki-cho I-chome, Hama-Gity, Aichi Pref 475-861
Japan
Date APRIL 13, 2007

Reference No.:

Customer's Control No. 3

Commodity SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name

Effective Year

Specification: JFE-13CR95 TUBING (PE)

Size 004-1/2" X 13.05 LBSX R3MA40

Quantity 78 Mass 18,325 Kg Total Length 3,095.4 F

Shlp No. Construction No.

FOR INFORMATION ONLY

MFG. No.	Heat No.	Chemical Composition (%)													H. Heat Analysis P. Product Analysis										9800PSI (5SEC.) GOOD	Bond Test											
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ca	Hydrostatic Test	MT: GOOD	UT: GOOD	Plating Test	Flaring Test	Drift Test	ASTM 1"													
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
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		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10.0 10.0 20 1025 50 1400												
		150 25													150 25										150 25												
		200 26 47 12 1 1 12 1297													200 26 47 12 1 1 12 1297										200 26 47 12 1 1 12 1297												
73985-03 (50)	2-72086	X1000													X1000										X100										N.D.E.	GOOD	GOOD
		22.0 10.0 10.0 20 1025 50 1400													22.0 10.0 10.0 20 1025 50 1400										22.0 10												

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S) AND THAT THEY SATISFY THE REQUIREMENTS.

Manager, Quality Assurance Sec.

御 田 迄 一



N083

B312 V6K12903

Certificate No. (Invoice No.) NA0704Y572

Order No. ZE00537-001

Shipper MARUBENI-ITOCHU STEEL INC.

Customer

Customer's Serial No.

Commodity

SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name

Specification

JFE-13CR95 TUBING (PE)

Size

OD 4-1/2" X 13.05 LBS XR3HA40

Quantity

78

Mass

18.325 Kg

Total Length

3,095.4 E

Ship No.

Construction No.

INSPECTION CERTIFICATE



JFE Steel Corporation
CHITA WORKS
1, Kamasaki-cho 1-chome, Handa-City, Aichi Pref 475-861
Japan
Date APRIL 13, 2007

JC-04 3/ 3

Reference No.

Effective Year

FOR

INFORMATION

ONLY

		Chemical Composition (%)															B. Heat Analysis P. Product Analysis																
MFG. No.	Heat No.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq	Hydrostatic Test (5 SEC.)	N. D. E.	Visual Dimension	Tensile Specimen	Bend Test											
		x1000	x100	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000						GOOD	GOOD	GOOD	GOOD	GOOD						
73985-06 (27)	I-86032	220	100	100	20	1025												x100	N. D. E.			GOOD	Bend Test										
		150		25														MT: GOOD						UT: GOOD	Flattening Test								
		220	100	100	20	1025																		Flattening Test									
		150		25																				Flattening Test									
73985-06 (27)	I-86032	200	32	41	16	1	1	141298										x1000	N. D. E.			GOOD	Bend Test										
		200	33	41	16	1	1	131300										Strip						ASTM 1"									
		200	33	41	16	1	1	131300										Round															
																								Full Sec.									
		Tensile Test															Impact Test																
		Parent (A370) Yield ()															Grain Size																
		Direction (L) (2)															Direction L (0° C) Spec. ASTM																
		Y.P. or F.S. T.S. EL. Y.R. T.S. Yield															I.Y. or A.E. Shear Area (%)																
		F.S.T.															2V 10X5.0 in.																
		11000															EACH AVE. EACH AVE.																
		950 1050 18															170 150																
		966 1234 24															757 687 94 88 105																
		970 1244 22															677 628 88 82																

IN-SPEC. NO. 86032

WE HEREBY CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS.

御 田 宏 一
Manager, Quality Assurance Sec.



HARDNESS TEST

ATTACHMENT I

CERTIFICATE NO.: NA0704Y572
ORDER NO.: 7E00537-001
HRC. Max. 27.0

a. xxx
b. xxx
c. xxx
123

PAGE: 1/1

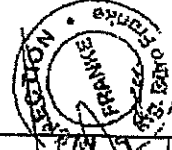
a: OUTSIDE
b: CENTER
c: INSIDE
T. Mori

MFG. NO.	HEAT NO.	1	2	3	AVE.
73985-01	1-86034	a	24.5	25.0	24.9
		b	25.6	25.7	25.8
		c	25.6	25.0	25.3
73985-03	2-72086	a	24.8	24.8	25.2
		b	26.3	25.9	26.0
		c	25.9	25.6	25.1
"	"	a	24.7	25.1	25.4
		b	25.9	25.5	25.9
		c	24.6	24.1	24.4
"	"	a	24.8	25.1	25.2
		b	25.7	25.7	25.7
		c	24.7	25.4	24.8
73985-06	1-86032	a	24.8	25.1	25.3
		b	26.1	25.9	26.2
		c	25.4	25.6	25.7
"	"	a	25.3	24.5	24.7
		b	26.2	26.2	26.1
		c	24.6	25.5	25.2
"	"	a			
		b			
		c			
"	"	a			
		b			
		c			

MFG. NO.	HEAT NO.	1	2	3	AVE.
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			

FOR INFORMATION ONLY

HOUGH
CERTIFICATION
RELEASE
SERIAL No. 62162



A083 BJ12 V6K12903
 Certificate No. 2A070AY816
 Order No. 7E00537-001
 Shipper: MARUBENI-ITOCHU STEEL INC.
 Customer: _____
 JFE Steel Corporation
 CHITA WORKS
 1, Kawasaki-cho I-chose Handa-City, Aichi Pref 475-8611
 Japan
 Date MAY 29 2007

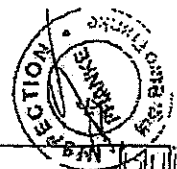
INSPECTION CERTIFICATE



Reference No. _____
 Project Name: _____
 Specification: JFE-13CR95 TUBING (PE)
 Size: OD4-1/2" X 13.951BSXR3M410
 Quantity: 20 Mass 4.055 ts Total Length: 786.3 F Ship No.: _____ Construction No.: _____
 Project No.: _____
 Customer's Contract No. 2-13
 Consistency: SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END
 Effective Year: _____

MFG. No.	Heat No.	Chemical Composition (%)														B. Heat Analysis P: Product Analysis														9800PSI (5SEC.)	Bend Test
		C	Si	Mn	P	S	Cr	Al	Ti	V	Nb	B	N	Ceq	Fe	Co	Mo	Al	Ti	V	Nb	B	N	Hydrogen Test	Flatness Test	Drift Test					
73985-03 (3)		X 100														X 1000														GOOD	Bend Test
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73985-03 (3)		X 100														X 1000														GOOD	Bend Test
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73985-03 (3)		X 100														X 1000														GOOD	Bend Test
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IN-SPEC KOBE LTD.
 T. Morita
 Manager, Quality Assurance Sec.
 御国炭一 株式会社
 御国炭一 株式会社
 御国炭一 株式会社



JFE
JFE
JFE Steel Corporation
CHITA WORKS
JFE-01 3, 9
1 Kawasaki-cho 1-chome, Hards-City, Aichi Pref 475-8811
JAPAN
Date MAY 29, 2007

Commodity	SEAMLESS STEEL TUBING	Customer's Contract No.	3	Reference No.	
Project Name					
Specification	1FE-12CR95 TUBING (FE)	Effective Year			
Size	OD 4-1/2" X 12.05 LB/SARMA 40				

		Chemical Composition (%)														H Heat Analysis P Product Analysis					9800PSI (5SEC.)	Blend Test
		C	Si	Mn	P	S	Co	Ni	Cr	Mo	Al	Ti	Nb	B	N	Ceq	Adaptation Test	Flatting Test	Flaring Test	Drift Test	ASTM I"	
		X1000														X1000	X1000	X1000	GOOD			
		X100														X100	X100	X100	GOOD			
		X100														X100	X100	X100	GOOD			
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		X100														X100	X100	X100	GOOD			

IN-SPEC KOBELTD.

CLERK THAT THE VEHICLES DESCRIBED ABOVE HAVE BEEN MANUFACTURED, INSPECTED AND
RECORDED IN THE VEHICLE'S CERTIFICATION AND THAT THEY SATISFY THE REQUIREMENTS

振田宏一
Manager, Quality Assurance Sec.

INSPECTION CERTIFICATE

JFE Steel Corporation
CHITA WORKS
1-1, Kawasaki-cho, Tama-City, Aichi Pref. 475-8811
Japan
Date MAY 29 2007



MO93 0012 1011210
JFE Steel Corp. NAGASAKI
Order No. JE000077-001
Shipper MARI BENI-170091 NIPPON INC.
Customer

Reference No.

Commodity SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Effective year

Specification JFE-13CR95 TUBING (JFE)

Size DD1-1.2" X 0.053" B3M340

Quantity 20 Mass 4.655 kg Total Length 786.2 F Construction No.

NFG. No.	Heat No.	Chemical Composition (%)										H. Heat Analysis P. Product Analysis		Hydrogen Test	9800PSI (55SEC.)	Bend Test
		C	Mn	P	S	Cr	Ni	Mo	Al	Ti	Nb	B	N			
73985-03 (2)		0.1000	0.1000	0.0000	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	GOOD	GOOD	
		0.1500	0.1500	0.0000	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	GOOD	GOOD	
		0.2000	0.2000	0.0000	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	GOOD	GOOD	
		0.2500	0.2500	0.0000	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	GOOD	GOOD	
73985-03 (2)		0.2000	0.2000	0.0000	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	GOOD	GOOD	
		0.2500	0.2500	0.0000	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	GOOD	GOOD	
		0.3000	0.3000	0.0000	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	GOOD	GOOD	
		0.3500	0.3500	0.0000	0.0000	0.1000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	GOOD	GOOD	

NFG. No.	Heat No.	Impact Test										Grain Size (Remarks)	
		Charpy	10°	20°	30°	40°	50°	60°	70°	80°	90°	ASTM	Remarks
73985-03 (2)		100	100	100	100	100	100	100	100	100	100	ASTM	HEAT TREATMENT
		100	100	100	100	100	100	100	100	100	100	ASTM	AUSTENITIZING. AIR COOLING & TEMPERING
		100	100	100	100	100	100	100	100	100	100	ASTM	MIN. TEMPERING TEMPERATURE 640°C
		100	100	100	100	100	100	100	100	100	100	ASTM	ULTRASONIC OD & ID, L & T N5

IN-SPEC KOBEL LTD.
T. KOBEL
JFE-13CR95 TUBING (JFE)
SPECIFICATION, JULY 2005
HEAT TREATMENT
AUSTENITIZING. AIR COOLING & TEMPERING
MIN. TEMPERING TEMPERATURE 640°C
ULTRASONIC OD & ID, L & T N5
JFE-SML-99-32 REV. 5
JFE-SML-99-132 REV. 5
PROCESS - BASIC OXYGEN CONVERTER
HARDNESS TEST REFER TO ATTACHMENT 1



日本鋼管株式会社
JFE Steel Corporation
Manager Quality Assurance Sec.

NO683 BJ12 YGK12503
 Certificate No. 807055818
 Order No. ZEQ0537-001
 Shipper MARUBENI-TOCHU STEEL INC.
 Customer



INSPECTION CERTIFICATE

JFE Steel Corporation
 CHITA WORKS
 1-1, Kasai-cho, I-chomei Hama-City Aichi Pref 475-3511
 Japan
 Date MAY 29, 2007

Reference No. _____
 Customer's Contract No. _____
 Commodity SEAMLESS STEEL TUBING JFE-13CR05 PLAIN END
 Project Name _____
 Specification JFE-13CR05 TUBING (JFE)
 Size QD4-1/2 X 13.05 LBS X 24'40"
 Quantity 20 Mass 4.635 kg Total Length 786.8 ft Ship No. _____ Construction No. _____
 Effect of Test _____

MFG. No	Heat No.	Chemical Composition (%)														Heat Analysis Product Analysis										Substrate Test	9800PSI (5SEC.)	Bend Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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INSPECTION CERTIFICATE

JFE Steel Corporation

ORITA WORKS

1, Kawasaki-cho 1-chome, Iwado-City Aichi Pref 475-8611

JAPAN

DATE

MAY 29 2007

Certificate No.

7440527-001

Supplier

MARLBENT-1104RU STEEL IN

Customer

Reference No.

SEAMLESS STEEL TUBING JFE-13CR9S PLAIN END

Project Name

Specification

JFE-13CR9S TUBING (PIPE)

Size

QD4-1727.513.0518SR3M410

Quantity

20

Weight

4.655 kg

Steel Length

780.3 P

Ship No.

Construction No.

MFG. No.

1-86032

Heat No.

1-86032

Chemical Composition

(%)

Impact Test

Grain Size

Penetration Test

Hardness Test

Welding Test

9800PSI (55EC.)

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B112 10K11963

Certificate No. JFE-134695

Order No. 7E60527-99.1

Shipped MARUBENI-ITOCHU STEEL INC.

Customer

Manufacturer

Commodity SPANLESS STEEL TUBING JFE-134695

Project Name

Specification JFE-134695

Size 1004-12" 10.6185 13.840"

Quantity 20 Mass 1.655 kg Total Length 125.2 F

Ship No.

Construction No.

INSPECTION CERTIFICATE

JFE Steel Corporation
CHITA WORKS
Kawasaki-cho 1-chome, Hamada-City, Aichi Pref, 475-8511
Japan
Date MAY 24 2007



Reference No.

Customer's Contract No.

Project Name

Effect of Test

Specification JFE-134695

Size 1004-12" 10.6185 13.840"

Quantity 20 Mass 1.655 kg Total Length 125.2 F

Ship No.

Construction No.

MFG No.	Heat No.	Chemical Composition (%)														II Bar Analysis? Product Analysis										Inducted Test (5SEC)	Bend Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Feb. 24/95

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Feb. 24, 69

INSPECTION CERTIFICATE



LC-27

JFE Steel Corporation

1, Kawasaki-cho 1-chome, Handa-City, Aichi Pref 475-861.
Japan
Date: MAY 29 2007

THE UNIVERSITY OF TEXAS AT AUSTIN

ISSN 1513

1. **ආර්ථිකය** : ආර්ථිකය

6000 Parkway, Suite 1000
 Dallas, Texas 75214
 Tel: 214/760-1234
 Fax: 214/760-1235
 E-mail: info@6000parkway.com
 Web: www.6000parkway.com

[illegible]

References

SEAMLESS STEEL TUBING

SEATTLE STEEL TUBING COMPANY

170,000 km.

14-00000

1. The first step in the process of effective leadership is to establish a clear vision and mission statement. This provides a roadmap for the organization and helps to align the efforts of all team members.

0715

0719

[illegible]

Quartely

Quantity	Unit	Price	Total
10	lb.	1.00	10.00
5	lb.	.50	2.50
2	lb.	.25	.50
1	lb.	.10	.10
			13.10

Quantity	20	16
...	...	...

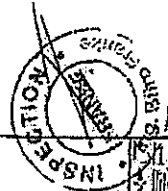
4PG. No.	Heat No	Chemical Composition (%)														Heat Analysis P. Spect Analysis				9800PSI (5SEC.)	Bend Test
		C	Si	Mn	P	S	Cu	Ni	C	Mo	Al	Ti	V	Nb	B	N	Ceq	%Mottate Test			
73985-09 (2)	I-86038	X1000														X1000	X100	N.D.E.	GOOD	Flatting Test	
		X1000														X1000	X100				
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THE ABOVE CERTIFICATE THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE COMPANY'S SPECIFICATION(S) AND THAT THEY SATISFY THE REQUIREMENTS

一宏田 擲
Manager, Quality Assurance Sec.



211

INSPECTION CERTIFICATE

JFE Steel Corporation
JC-01 9, 9

1, Kawasaki
Japan
Hayashi Pref. 475-8611

Water MAY 29 2007

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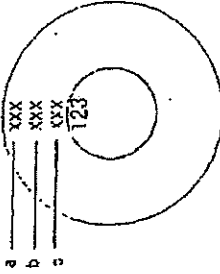
HARDNESS TEST

ATTACHMENT 1

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PAGE. 1/1

a:OUTSIDE

b:CENTER

c:INSIDE

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MFG.NO	HEAT NO	1	2	3	AVE
73985-01	1-86034	a 24.5 b 25.6 c 25.6	25.0 25.7 25.0	24.9 25.6 25.3	24.8 25.7 25.3
73985-03	2-72086	a 24.5 b 25.8 c 25.7	25.0 25.7 25.1	25.2 25.8 25.2	24.9 25.8 25.3
73985-05	2-72088	a 24.6 b 25.0 c 24.8	24.4 25.3 24.5	25.0 25.1 24.6	24.7 25.1 24.6
73985-03	2-72086	a 24.0 b 25.0 c 25.1	24.3 25.4 25.1	24.7 25.5 24.7	24.3 25.3 25.0
73985-04	2-72089	a 24.4 b 25.7 c 25.1	24.3 25.9 25.2	25.1 25.4 25.0	24.8 25.7 25.1
73985-06	1-86032	a 25.5 b 26.3 c 25.0	25.3 26.2 25.6	25.5 26.1 25.9	25.4 26.2 25.5
73985-07	1-85381	a 24.8 b 26.1 c 24.9	24.8 25.9 25.6	24.9 25.9 25.2	24.8 26.0 25.2
73985-09	1-86036	a 24.3 b 26.0 c 25.5	24.6 25.8 25.6	24.8 25.0 25.5	24.6 25.9 25.5

MFG.NO.	HEAT NO				1	2	3	AVE.
		a	b	c				
73985-10	1-86030	a			23.4	23.6	23.8	23.6
		b			24.5	24.5	24.2	24.4
		c			23.0	24.0	23.5	23.5
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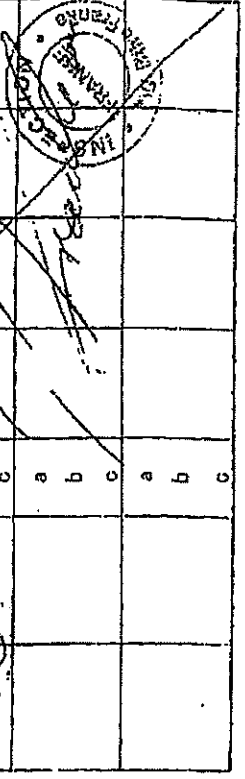
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73985-10
1-86030
1-86032
1-86036
1-86037



NO. 2012 13.02501

Article No. 13.02501

Order No. 200507-001

Customer MARUBENI-TECHNICAL STEEL INC.

Customer

Customer's Contact No. 2

Commodity SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name

Specification JFE-13CR95 TUBING (PE)

Size OD4-1.2 X 12.05 LSR3MA40

Quantity 13

Weight 2.971 kg

Total Length 502.8 E

Ship No.

Construction No.

INSPECTION CERTIFICATE

JFE Steel Corporation

CHITA WORKS

1, Kawasaki-cho 1-chome Hama-Gity Aichi Pref 475-0511

JAPAN

Date JUNE 21, 2007



JFE

Reference No.

Extract: 9 Jan

Customer's Contact No. 2

Commodity SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Project Name

Specification JFE-13CR95 TUBING (PE)

Size OD4-1.2 X 12.05 LSR3MA40

Quantity 13

Weight 2.971 kg

Total Length 502.8 E

Ship No.

Construction No.

Inspection No.

Inspector

Inspector's Signature

Inspector's Stamp

Inspector's Title

Inspector's Date

Inspector's Location

Inspector's Contact No.

Inspector's E-mail

Inspector's Fax

Inspector's Mobile

Inspector's Pager

Inspector's Home

Inspector's Office

Inspector's Other

Inspector's Address

Inspector's City

Inspector's State

Inspector's Country

Inspector's Zip

Inspector's Email

Inspector's Phone

Inspector's Fax

Inspector's Mobile

Inspector's Pager

Inspector's Home

Inspector's Office

Inspector's Other

MFG. No. Heat No.		Chemical Composition (%)													R. Heat Analysis P. Product Analysis				Indicator Test	9803PSI (5SEC.)	Bend Test			
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq							
73985-04 (1)	2-72089	x1000													x100				x1000			N. D. E.	GOOD	Plattening Test
		220100100													20				1025					
		150													25				11200					
		220100100													20				1025					
		150													25				11200					
73985-04 (1)	2-72089	220100100													20				1025			Visual Dimensions	GOOD	Drift Test
		150													25				11200					
		220100100													20				1025					
		150													25				11200					
		220100100													20				1025					
73985-04 (1)	2-72089	220100100													20				1025			Visual Dimensions	GOOD	Strip
		150													25				11200					
		220100100													20				1025					
		150													25				11200					
		220100100													20				1025					
73985-04 (1)	2-72089	220100100													20				1025			Visual Dimensions	GOOD	ASTM I
		150													25				11200					
		220100100													20				1025					
		150													25				11200					
		220100100													20				1025					
73985-04 (1)	2-72089	220100100													20				1025			Visual Dimensions	GOOD	Round
		150													25				11200					
		220100100													20				1025					
		150													25				11200					
		220100100													20				1025					
73985-04 (1)	2-72089	220100100													20				1025			Visual Dimensions	GOOD	Full Sec.
		150													25				11200					
		220100100													20				1025					
		150													25				11200					
		220100100													20				1025					

Tensile Test		Impact Test		Grain Size		Remarks	
Spec: (ASTM)	Test: (ASTM)	Charpy		ASTM		SPECIFICATION	
Direction: L		Direction: L		ASTM		API 5CT 8TH EDITION, JULY 2005	
Tensile: 100		Tensile: 100		ASTM		HEAT TREATMENT	
Yield: 50		Yield: 50		ASTM		AUSTENITIZING, AIR COOLING & TEMPERING	
Elong: 20		Elong: 20		ASTM		MIN. TEMPERING TEMPERATURE 510°C	
Reduction of Area: 40		Reduction of Area: 40		ASTM		TEST METHODOLOGY: ULTRASONIC OD & ID, L & T NS	
ASTM		ASTM		ASTM		JFE-SML-99-52 REV. 6	
100		100		100		JFE-SML-99-132 REV. 5	
50		50		50		PROCESS: BASIC OXYGEN CONVERTER	
95		95		95		HAEDNESS TEST	
96		96		96		REFER TO ATTACHMENT	

INSPECTED

Steel Corporation
1001 Chumbe Road-City Aichi Pref 475-8611
JUNE 21, 2007

一宏田園

Yoko
Guthrie & Co. Ltd.
Order to
Shipped
Customer

0111 10112000
1020000000
7E02527-001
MARUBENI-TOUCHI STEEL INC

INSPECTION CERTIFICATE

JFE
CHITA WORKS
1, Kawasaki-cho 1-chome, Hamada City Aichi, Pref. 475-8611
Japan
JFE 21 200

Customer's Contract No. 1

SEAMLESS STEEL TUBING JFE-13CR95 PLAIN END

Reference No.

Project Name:

Effective Year

Specification: JFE-13CR95 TUBING (PE)

Size: OD4-1/2 X 13.95 LB3M140

Quantity: 13 bars 2,971 kg Total Length 502.9 F

Sup No. Construction No.

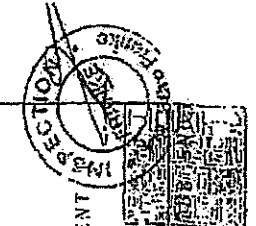
MFG. No.	Heat No.	Chemical Composition (%)												Impact Analysis P: Product Analysis				Hydrostatic Test (\$SECC.)	Hard Test
		C	Si	Mn	P	S	Co	Ni	Cr	Mo	Al	Ti	V	Nb	B	N	Ceq		
73985-08 (3)	1-86035	max 0.25	max 0.10	max 0.10	max 0.010	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	GOOD	Hard Test
		min 0.15	min 0.05	min 0.05	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	NT: GOOD	Fatigue Test
		max 0.25	max 0.10	max 0.10	max 0.010	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	UT: GOOD	Flaring Test
		min 0.15	min 0.05	min 0.05	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	GOOD	Drift Test
73985-08 (3)	1-86035	max 0.25	max 0.10	max 0.10	max 0.010	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	Strip	ASTM 1"
		min 0.15	min 0.05	min 0.05	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	Round	
		max 0.25	max 0.10	max 0.10	max 0.010	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	max 0.005	Full Sec.	
		min 0.15	min 0.05	min 0.05	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002	min 0.002		

IN-SPEC KOBEL LTD.

T.Mex.

WE CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S) AND THAT THEY SATISFY THE REQUIREMENTS.

Manager, Quality Assurance Sec.



JFE Steel Corporation
 CHITA WORKS
 1-1-1 Kawasakishi-cho Handa-City Aichi Pref Japan
 Date 11/11/2007

NO. 97 6 JUL 1964
 Certificate of Origin No. 7061-17011
 Order No. 7061-17011
 Shipper: MARK BEN-1-17011
 Customer

Commodity SEAMLESS STEEL TUBING, 16-13093 PLAIN, END

Project Name _____ Date _____

Specification: IFF-13095, IIRKING (PE)

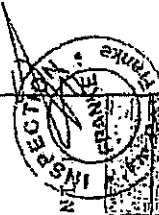
Quantity	Size
1	0D4-1/2" X 13.051 B5 YR3M 40'

[illegible]

IN-SPEC ROSE LTD

THE ABOVE CERTIFY THAT THE MATERIALS DESCRIBED HEREIN HAVE BEEN MANUFACTURED, INSPECTED AND TESTED IN ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION(S), AND THAT THEY SATISFY THE REQUIREMENTS

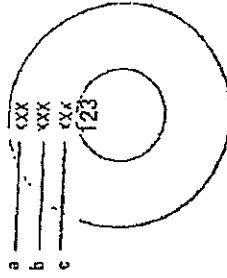
一宏田柳
Manager, Quality Assurance Ser.



HARDNESS TEST

ATTACHMENT :

CERTIFICATE NO NA0706Y923
ORDER NO 7E00537-001
HRC Max 27.0



PAGE 1/1

a OUTSIDE
b CENTER
c INSIDE

T. Mori

MFG.NO.	HEAT NO.	1	2	3	AVE
73985-01	1-86034	a	24.5	24.9	24.8
		b	25.6	25.7	25.7
		c	25.6	25.0	25.3
73985-04	2-72089	a	24.4	24.3	24.6
		b	25.7	25.9	25.7
		c	25.1	25.2	25.1
73985-07	1-85381	a	24.8	24.8	24.8
		b	26.1	25.9	26.0
		c	24.9	25.6	25.2
73985-08	1-86035	a	25.2	25.3	25.5
		b	26.2	26.1	26.1
		c	25.5	25.2	25.4
73985-09	1-86036	a	25.5	25.1	25.4
		b	25.8	25.9	25.9
		c	24.8	25.9	25.4
		a			
		b			
		c			
		a			
		b			
		c			

MFG.NO.	HEAT NO.	1	2	3	AVE
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			
		a			
		b			
		c			

205/10

CERTIFICATION
RELEASE
1994 6.2.16.5
10/10/07

