

FURUKAWA UNIC CORPORATION

SAKURA WORKS

2348, Ota, Sakura-shi, Chiba, 285-8511,

JAPAN

TELEPHONE
(81-43) 485-5111

FACSIMILE
(81-43) 485-5167

Certificate Test and Examination of Hook

We hereby certify ; - That we have duly inspected the following commodity
According to NATIONAL STANDARD and UNIC STANDARD(JIS B 2803-1987)

Application URW295CP2E / C4E / WB2E / CB2E
URW376C4E

Part No. 08FA35031

Capacity 2.9 t

Material JIS G 4051 S45C(Normalizing)

Tensile Strength . . . ≥ 570 N/mm²

Yield Stress ≥ 345 N/mm²

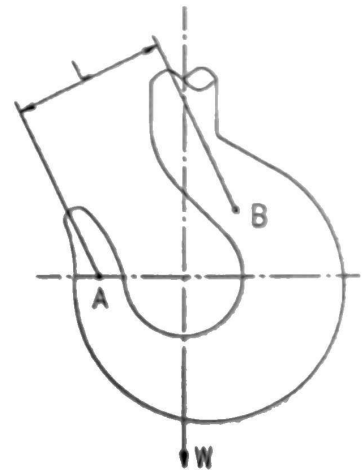
Test load(W) 5.8 t

Decision Hook permanent deformation . . . < 0.25 %

Test procedure ;

Load test of hook is to be performed as specified below ;

- (1) Mark with dots on the surface of hook like figure.
- (2) Measure the distance between the dot A and the dot B. (L0)
- (3) Charge the load (W) on the hook.
- (4) Remove the load and measure the distance between the dot A and the dot B. (L1)
- (5) Calculate the permanent deformation.



$$\text{Parmanent deformation} = \frac{L1 - L0}{L0} \times 100 (\%)$$

Result of inspection : good Permanent deformation = 0 (%)

Signature of Inspector N. Kiyama Date 24. Jan. 2022

TEST CERTIFICATE 試験証明書

Mitsubishi Steel Muroan Inc.
 QUALITY ASSURANCE SECTION
 Muroan Works

三菱製鋼室蘭特殊鋼株式会社

室蘭製作所
 品質保証室

〒050-0087 北海道室蘭市仲町12番地
 TEL: 0143-41-2811

注文書 No. Order No. 清水鋼材部	納入先 Delivery Destination 清水鋼材部 清水事業所	オーダー Order No. CB251709
納品店 Specified Dept. 清水鋼材部	納入仕組 Condition R	納番 No. No. E72146
品名 Type of Steel S45C	試験証明書 No. Certificate No. E1302917	発行日 Date 21.03.27

項目 Item	化学成分 Chemical Composition (%)										
	C	Si	Mn	P	S	NI	Cr	Mo	Cu	Ni+Cr	
規格 Spec.	MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	MAX.
成鋼 Sample	45	17	52	18	15	2	0	1	2	11	

項目 Item	引張強さ Tensile Str. (N/mm ²)	伸び Elongation (%)	絞り Red. of Area (%)	硬さ Hardness (HRC)	衝撃値 Impact Value (J/CM ²)		曲げ試験 Bend Test (180°)	供試材 Sampling Condition	熱処理 Heat Treatment (T.P.)
					2U	CHARPY			
規格 Spec.	490	17	45	201	2U	MIN=78	180°		T.P.
成鋼 Sample	580	27	62	233		MIN=164			1Q H.Q. T H.C. 820- 870 550- 650 350 H.Q. 370 H.C.

項目 Item	硬さ Hardness (Red. Quenching Method)	
規格 Spec.		
成鋼 Sample		

項目 Item	非金属夹杂物 Non-Metallic Inclusions JIS		非金属夹杂物 Non-Metallic Inclusions ASTM		結晶粒度 Grain Size		成分計算 Component Calculation	
	マクロ組織 Macro	ミクロ組織 Micro	マクロ組織 Macro	ミクロ組織 Micro	Macro	Micro	Macro	Micro
規格 Spec.								
成鋼 Sample								

項目 Item	脱炭 Decarburization (全脱炭 フェライト)	製品硬さ Body Hardness	硬さ Hardness	備考 Remarks
規格 Spec.				JIS G4051 (2016) ULTRASONIC INSPECTION: GOOD
成鋼 Sample				

We hereby certify that the material described herein has been made and tested in accordance with the specification requirements.
 ここに記述される材料が、世帯の要求事項に従って製造及び試験されたことを保証します。

88UJ2701 01-37615-21 S905 R 190

T. Uchida

Manager Quality Assurance Section Muroan Works

熱処理作業記録
Heat Treatment Record

21100407

発行日

Date 2021年10月11日

Mour's.

株式会社川口鐵工廠

鋼中

共和熱処理株式会社

Kyosei Heat Treatment Co., Ltd.

川口工場 〒134-0086 埼玉県川口市南宮前5-6-23

電話(044)224-2287(代)

5-6-23 Ryusei Kamagishi-Chy. Sakai, Japan.

Phone: 044-224-2287



作業日

Date 2021年10月9日 ~ 2021年10月9日

熱処理方法
Heat Treatment Method

材料 Material	原番 Heat No.	品名 Items	数量 Quantity	注番・部番 OD/No.・DWG/No.	硬さ Hardness	規格 Specification	備考 Remarks	冷却 Cool	
								空冷 Cool	油冷 Cool
S45C		取付ブラケット	1,528	08FA35030	H183 - H179 -	HBW 167 - 229			

品質保証課
Quality Control Group



備考 O-焼入、T-焼戻、N-焼付、A-焼入れ、SR-心/部外焼入れ、ST-焼入れ、AG-時効処理、LA-低温焼入れ、SA-球状化焼入れ、UC-焼入れ、WC-焼入れ、NC-焼入れ

FURUKAWA UNIC (THAILAND) CO.,LTD.
109/11 Moo 4 Tambol Pluakdaeng , Amphur Pluakdaeng , Rayong 21140
THAILAND

TELEPHONE
+66 (0) 3301-7481

FACSIMILE
+66 (0) 3301-7485

Certificate of Wire rope

We hereby certify ; - That we have duly used the following commodity.

Application URW295CP2E
Part No. 760250220
Diameter × Length 8mm × 54m
Construction IWRC 6 × WS(26)
Specified breaking load 47.10 kN

Certificate of inspection No. : TW21134-1 (Cf. attached sheet)

Signature

A. Jaita

Date

21 Jan 2022



Plo 475, Jalan Kekuli 2, PO Box 101, 81707 Pasir Gudang, Johor, Malaysia.
 TEL : 607-2512475 FAX : 607-2510870 www.kiswire.com

CERTIFICATE NO. 2021 - 10 - 008 / TW21105 DATE 05. Oct. 2021

MILL TEST CERTIFICATE

THIS IS TO CERTIFY THAT THE MATERIAL DESCRIBED BELOW WAS MANUFACTURED
 IN ACCORDANCE WITH KISWIRE SPECIFICATION AND APPLICABLE SECTIONS

OF FURUKAWA (1960 N/mm²)

TO MESSRS HYROPE (THAILAND) CO., LTD.

MATERIAL DESCRIPTION UNGALVANIZED STEEL WIRE ROPE
6 x 26 WS - IWRC 2,000.00 M x 2 REEL

TYPE _____

EX NO. TW21134-1 FACTORY NO. 202105WRM00620

ORDER NO. HYTH2105-01 REEL NO. 1-2 SAMPLING NO. 1

DIAMETER OF ROPE 08.00 mm

TYPE OF CORE IWRC

MIN BREAKING STRENGTH 47.10 kN SAMPLE BROKE AT 51.95 kN

WT OF ZINC COATING OF OUTER WIRE STD _____ RESULT _____

ROPE LAY 2Z (RHRL, OZ) LAY LENGTH 49.50 mm

LUBRICATION	A-3	Customer	FURUKAWA UNIC (Thailand) Co., Ltd
		Po No.	2109008226
		Reel No.	1-2 (HYTH-21-0110)
		Delivery Date	20/10/21
		Length M.	2000 M / 2 reel
		Approved By	T. M. / 2021

CHEMICAL ANALYSIS OF WIRE ROPE FOR OUTER WIRE

CHARGE NO.	Carbon X 100	Silicon X 100	Manganese X 100	Phosphorus X 1000	Sulphur X 1000
SAS000	73	22	45	10	11

DATE OF SAMPLE TEST 01. Oct 2021



Approved by QA Manager Mr. Zamri Jusfir
 KISWIRE

FURUKAWA UNIC CORPORATION

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Certificate Test and Examination of Hook

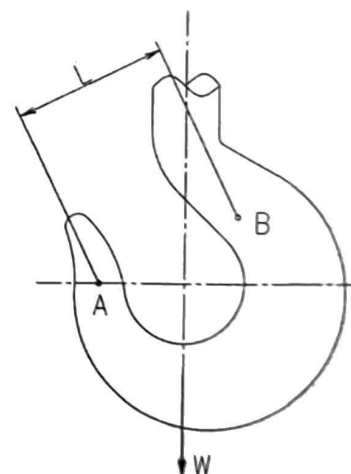
We hereby certify ; - That we have duly inspected the following commodity
According to NATIONAL STANDARD and UNIC STANDARD(JIS B 2803-1987)

Part No. 014332072
Capacity 700 kg
Application Fly jib for URW095C,295C,376C,506C,546C Series
Material JIS G 4051 S45C(Normalizing)
Tensile Strength $\geq 570 \text{ N/mm}^2$
Yield Stress $\geq 345 \text{ N/mm}^2$
Test load(W) 1.4 t
Decision Hook permanent deformation $< 0.25 \%$

Test procedure ;

Load test of hook is to be performed as specified below ;

- (1) Mark with dots on the surface of hook like figure.
- (2) Measure the distance between the dot A and the dot B. (L0)
- (3) Charge the load (W) on the hook.
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Result of inspection : good Permanent deformation = 0 (%)

Signature of Inspector N. Hiyama

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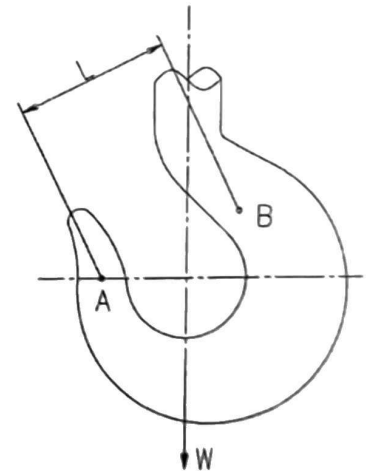
We hereby certify ; - That we have duly inspected the following commodity
According to NATIONAL STANDARD and UNIC STANDARD(JIS B 2803-1987)

Part No. 760330016
Capacity 700 kg
Application Searcher hook for URW095C,295C,376C,506C,546C Series
(EJ-01E,02E,03E,04E,05E,06E,376C4-E,506C4-E,546C4-E)
Material 42CrMo4 UNI EN 10083
Tensile Strength . . . $\geq 980.7 \text{ N/mm}^2$
Yield Stress $\geq 834 \text{ N/mm}^2$
Test load(W) 1.4 t
Decision Hook permanent deformation . . . $< 0.25 \%$

Test procedure ;

Load test of hook is to be performed as specified below ;

- (1) Mark with dots on the surface of hook like figure.
- (2) Measure the distance between the dot A and the dot B. (L0)
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Result of inspection : good Permanent deformation = 0 (%)

Signature of Inspector N. Koyama Date 14. May. 2021

UNIC Cranes (Europe)
WARRANTY REGISTRATION FORM

This form must be completed to Implement your UNIC Crane Warranty.

Distributor	GGR Group Ltd	Date of Inspection:	
City, Country	Haddenham	Date of Delivery:	
Address:	Pegasus Way	Dealer Signature	
Phone / Fax	1844202071	Date of Signature	
E-Mail	luisa.haselhuhn@ggrgroup.com		

Customer Name:		Crane Model:	
City, Country		Crane Serial Number:	
Address:		Customer's Signature:	
Phone / Fax			
E-Mail			

Inspection	Initial	Operation Training	Inspection	Training
A) Visual Inspection		E) Travelling		
1, Boom & Hook		1, Forward & Backward		
2, Column		2, Speed Change		
3, Outriggers		F) Interlocks		
4, Chassis Frame & Crawler Gear		1, Crane & Crawling Levers		
5, Piping, Hoses and Fittings		2, Crane & Outriggers		
6, Hydraulic Oil Tank		G) Safety Devices		
7, Oil Level		1, Horn		
		2, Angle Indicator		
		3, Load Indicator		
		4, Level Gauge		
		5, Over Winding Alarm		
		6, Over Lowering Alarm		
		7, Emergency Stop Button		
		8, Warning Lamps		
		9, Turnover Protection		
		10, Moment Limiter		
		H) Radio Remote Control		
		1, Transmitter & Receiver		
		2, All Operations by Radio		
		I) Manuals Review		
		1, Operation and Maintenance		
		2, Parts		
		J) Others		
		1,		
		2,		

Signatures : Inspector	_____	Operator	_____	Date	_____
Trainer	_____	Trainee	_____	Date	_____

Registration Routing:
GGR Group Ltd, GGR UNIC House, Pegasus Way, Haddenham Business Park, Haddenham, HP17 8LJ