



## MAEDA SEISAKUSHO CO., LTD.

1095 Shinonoi Onbegawa, Nagano City  
Nagano 388-8522, JAPAN  
TEL +81-(0) 26-292-2228  
FAX +81-(0) 26-293-5590



### EU-DECLARATION OF CONFORMITY

#### Manufacturer

Company Name: Maeda Seisakusho Co., Ltd.  
Address: 1095 Onbegawa, Shinonoi, Nagano City  
Nagano, 388-8522 JAPAN

Herewith declares and takes sole responsibility for declaring,  
that the machine described below

Product Name: Mini Crawler Crane  
Type Number: MC-405CRME (kw rating = 21.8)  
Serial Number: E0113  
Year of Manufacture: 2008

-is in conformity with the following directives

Machinery Directive 98/37/EC Annex II, chapter A

-is in conformity with the following provisions

" Low Voltage Directive 2006/95/EC "

" EMC Directive 2004/108/EC "

" Noise emission in the environment by equipment for use out doors Directive 2000/14/EC "

Measured sound power level = 97 dB LWA


Guaranteed sound power level = 101 dB LWA

-was manufactured in compliance with the following standards

EN ISO12100-1:2003	Safety of machinery - Basic concepts, general principles for design. Part 1. Basic terminology, methodology
EN ISO12100-2:2003	Safety of machinery - Basic concepts, general principles for design. Part 2. Technical principles
EN1050:1996	Earth-moving machinery - Safety - Part1:General requirements
EN60204-1:1998	Safety of machinery - Principles for risk assessment
EN474-1: 2006	Safety of machinery - Electrical equipment of machines
EN12895:2000	Industrial trucks.Electromagnetic compatibility
EN61000-6-2:2005	Electromagnetic compatibility-Part 6-2: Generic standards-Immunity for industrial enviroments
EN61000-6-4:2007	Electromagnetic compatibility-Part6-4:Generic standards-Emission standard for industrial environments
EN ISO3744:1995	Acoustics. Determination of sound power levels of noise

Place:Nagano, Japan

Date:July 25th, 2008

  
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Takehiro Kobayashi  
General Manager / Industrial machinery Division  
MAEDA SEISAKUSHO CO.,LTD.



MAEDA

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TO WHOM IT MAY CONCERN:

### Certificate of Test and Inspection

4-Fall/2-Fall, 3 Sheave Hook Block  
Manufacturer: MAEDA SEISAKUSHO CO., LTD.  
Model for: MC-405CRME  
Serial No. : E0113  
Hook Block No. : M8605

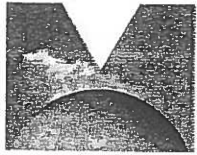
We hereby certify that this hook block has been tested and inspected in accordance with the quality standard of our company and we guarantee the quality of this product.

Hook Block Ass'y:	Part No. 104-1142100
	Drawing No. 104-4561800
Specifications:	Refer to the attached document for details
Safe Working Load:	3,800 kg
Sheave rope diameter:	8 mm
Actual value (Internal diameter):	80 mm
Date of Test and Inspection:	July, 25th, 2008

Signed on behalf of MAEDA SEISAKUSHO CO., LTD.:

Toshio Kuraishi

Toshio Kuraishi  
General Manager / Quality Assurance Division  
MAEDA SEISAKUSHO CO., LTD.



**MAEDA**

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### **CERTIFICATE FOR LOAD TEST**

We herewith confirm that following model:

MC-104CR  
MC-104CR-2  
MC-104CER  
MC-104CER-2  
MC-285CRM  
MC-285CRM-E  
MC-305CRM  
MC-305CRM-E  
MC-305CRMS-2  
MC-305CRMSE-2  
MC-405CRM  
MC-405CRME  
LC785-6  
LC785M-6

Have been test-lifted with 1.25 times the rated total load at our factory.

We also confirm that the group of classification of the mechanism as a whole is M3

and type of crane is A1 in accordance with ISO 4301-2 (JIS B 8822-1).

Place:Nagano, Japan  
Date:June 21th 2007

Takatoshi Taniguchi  
Director / industrial machinery Division  
MAEDA SEISAKUSHO CO.,LTD.

Certificate number KB - 191



## CERTIFICATE OF TEST AND THOROUGH EXAMINATION OF CRANE

Name and address of owner of crane:	Kranlyft-group , P.O Box 441 , 401 26 Gothenburg , Sweden
Name and address of maker of crane:	Maeda Seisakusho Co., Ltd.
Type of crane and nature of power.	Hydraulic tracked diesel engined and electric motor telescopic crane, Model MC405CRME
Date of manufacture of crane.	2008
IDENTIFICATION NUMBER:	(a)Maker's serial number: E - 0113 (b)Owner's distinguishing Mark or number (if any): not registered
Make and type of automatic safe load Make and type of derricking interlock , if required:	TOYO CONTROL CO., LTD. , TCL-139-1 N/A
Date of last previous test of crane:	New machine
Date of last previous thorough examination of crane:	New machine
Safe working load or loads:	See attached sheets 1 to 4
In the case of a crane with a derricking jib or jibs the max. radius at which the jib or jibs may be worked ( in feet ):	See attached sheets 1 to 4
Defects noted and alterations or repairs required before crane is put into service:	None. None.

I hereby certify that the crane described in this certificate was tested and thoroughly examined on 16 / 7 / 08 and that the above particulars are correct.

Signature:

N. Kitajima

Qualification Engineer

Name and address of person , company or association by whom the person conducting the test and examination is employed. Maeda Seisakusho Co., Ltd.  
1095 Onbegawa , Shinonoi ,  
Nagano city , Nagano prefecture  
388-8522 , Japan

Date of certificate:

16 / 7 / 08

For notes see overleaf.

CERTIFICATE No.KB- 191

SERIAL NO: E- 0113

MAEDA MC405CRME

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DATE OF CERTIFICATE: 16/7/08 SIGNATURE

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*N. Kitajima* ENGINEER

CERTIFICATE No.KB- 191

SERIAL NO: E-0113

MAEDA MC405CRME

[illegible]

DATE OF CERTIFICATE : 16/7/08 SIGNATURE

北島

*N. Kitajima* ENGINEER

CERTIFICATE No.KB- 191

SERIAL NO: E- 0113

MAEDA MC405CRME

[illegible]

DATE OF CERTIFICATE : 16/7/01 SIGNATURE

此為

*N. Kitajima* ENGINEER

CERTIFICATE No.KB- 191

SERIAL NO: E-0113

MAEDA MC405CRME

[illegible]

DATE OF CERTIFICATE : 16/7/08

SIGNATURE

北島

*N. Kitajima* ENGINEER

# Hook Structural Calculation Sheet

Cross section performance of risky cross section

$$I = \frac{(B+b)^2 + 2Bb}{36(B+b)} \cdot h^3$$

$$= \frac{(40+16)^2 + 2 \times 40 \times 16}{36(40+16)} \times 57^3$$

$$= 405660.9 \text{ (mm}^4\text{)}$$

$$e1 = \frac{1}{3} \times \frac{2B+b}{B+b} \cdot h$$

$$= \frac{1}{3} \times \frac{2 \times 40 + 16}{40 + 16} \times 57 = 33 \text{ (mm)}$$

$$e2 = h - e1 = 57 - 33 = 24 \text{ (mm)}$$

$$\sigma_A = \frac{W}{A} - \frac{W(a+e2)e1}{I}$$

$$= \left( \frac{3800}{1596} - \frac{3800 \times 64 \times 33}{405660.9} \right) \times 9.81$$

$$= -170.7 \text{ (N/mm}^2\text{)}$$

$$S = \sigma_0 / \sigma_A = 687 / 170.7 = 4.02$$

$$\sigma_B = \frac{W}{A} + \frac{W(a+e2)e2}{I}$$

$$= \left( \frac{3800}{1596} + \frac{3800 \times 64 \times 24}{405660.9} \right) \times 9.81$$

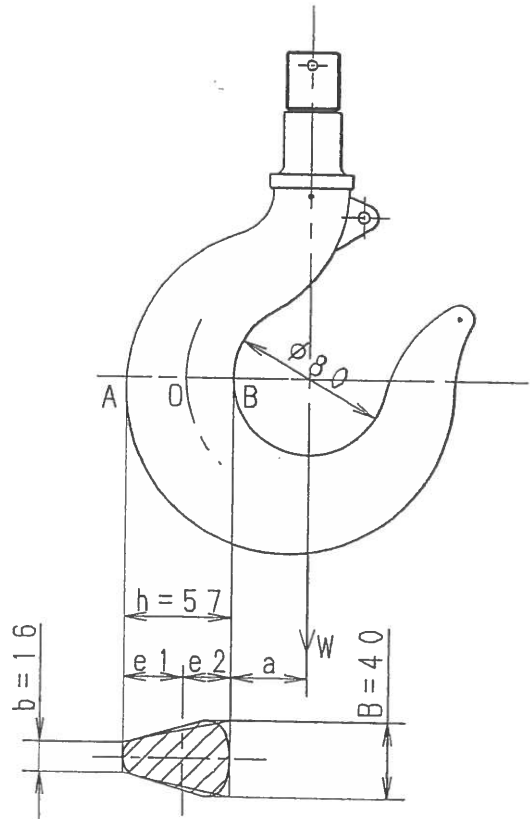
$$= 164.5 \text{ (N/mm}^2\text{)}$$

$$S = \sigma_0 / \sigma_B = 687 / 164.5 = 4.18$$

Material of hook: S45C

Tensile strength:  $\sigma_0 = 687 \text{ (N/mm}^2\text{)}$

Yield strength : 490 (N/mm<sup>2</sup>)



W: Rated load 3800 kg

A: Cross section area

$$A = \frac{B+b}{2} \times h$$

$$= \frac{40+16}{2} \times 57 = 1596 \text{ (mm}^2\text{)}$$

Hook Structural Calculation Sheet

MODEL MC-405C

Drawing No. 104-4561800