

USER MANUAL

Mast Height Extension

Manual Number 6921955-R1



KOOI

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Definitions



Warning:

Text blocks marked by a “Warning” icon (as shown on the left) and starting with the text “**Warning:**” provide information on actions which may result in serious injury.



Caution:

Text blocks marked by a “Caution” icon (as shown on the left) and starting with the text “**Caution:**” provide information on actions which may result in damage to the Mast Height Extension, parts of the Mast Height Extension or goods.

Remark

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(Quality) standards and directives

Cascade KOOI complies with the following quality standard: ISO 9001.

The Mast Height Extension complies with the following standards and directives:

- CE (2006/42/EC) - Machine Directive
- ISO 3834-2 Quality requirements for fusion welding of metallic materials - Part 2: Comprehensive quality requirements

Safety

**Warning:**

Don't use the Mast Height Extension in temperatures lower than -30°C / -22°F or higher than 50°C / 122°F .

**Warning:**

Don't let a minor operate the Mast Height Extension, only by qualified operators.

**Warning:**

Don't use the Mast Height Extension for lifting people or animals.

**Warning:**

Don't operate the Mast Height Extension while there are people on the Mast Height Extension.

**Warning:**

Don't stick/hold body parts between the moving frame and the fixed parts of the Mast Height Extension.

**Warning:**

Don't weld to the Mast Height Extension without specific authorization of the supplier. If welding takes place on the Mast Height Extension without the mentioned authorization, all warranty will expire.

**Warning:**

Don't use a Mast Height Extension with any failings, before it is expertly repaired or replaced.

**Warning:**

Perform maintenance work only if the Mast Height Extension is fully lowered.

**Warning:**

The minimum operating pressure for the Mast Height Extension is 120 bar.

**Caution:**

Recalculate and replace name plate for residual capacity of the forklift.

**Caution:**

Hydraulic components can become hot during operation.

**Caution:**

The field of sight is limited because of use of Mast Height Extension.

**Caution:**

The Mast Height Extension has a maximum capacity it can lift as can be found on the type plate.

**Caution:**

By use of the Mast Height Extension extra height is gained.

**Caution:**

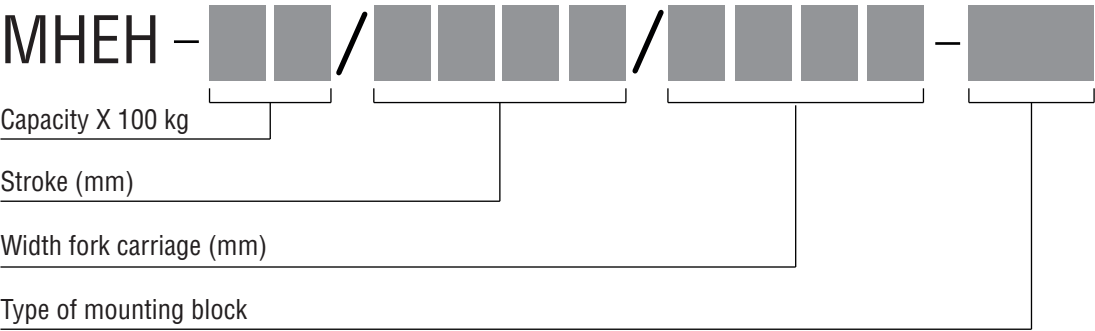
Always drive with the Mast Height Extension in the lowest possible position.

Indentification

Type plate symbols

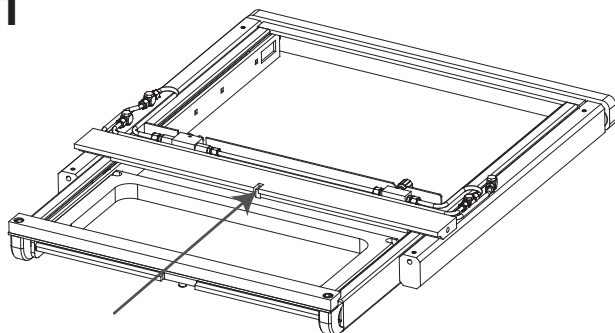
	Type description		Maximum allowed oil pressure
	Serial number		Production year
	Weight		Extra information
	Maximum capacity		

Type description



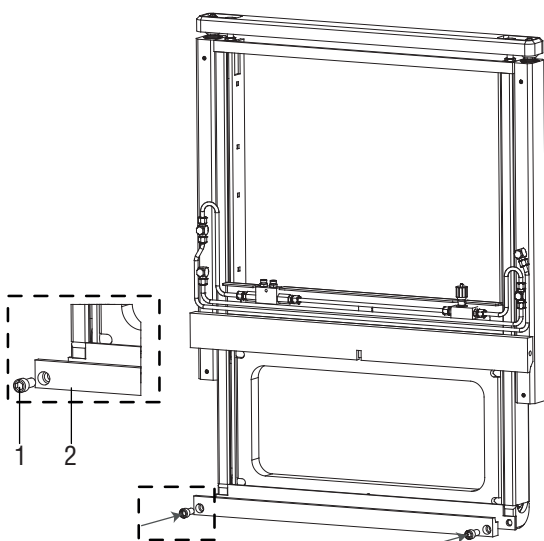
Installation on forklift

1



Center the Mast Height Extension on the fork carriage of the forklift by use of the positioning nudge.

2



	Required parts description	Article number	Amount
1	Socket screw M16	07160 M16x35	2
2	Mounting block	*	1

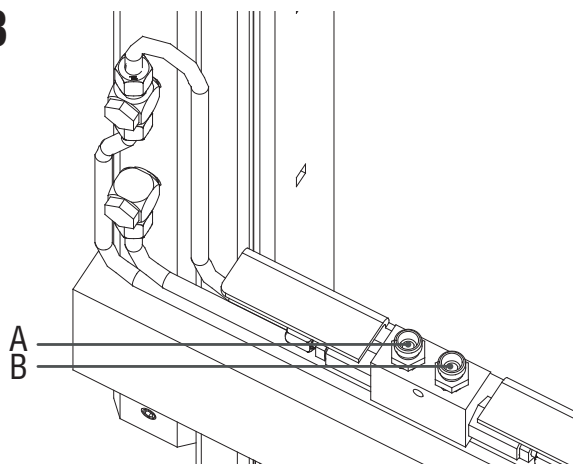
To secure the Mast Height Extension on the forklift the FEM2 profile must be connected to the fork carriage.



Caution:

Recalculate and replace the name plate with the residual capacity of the forklift

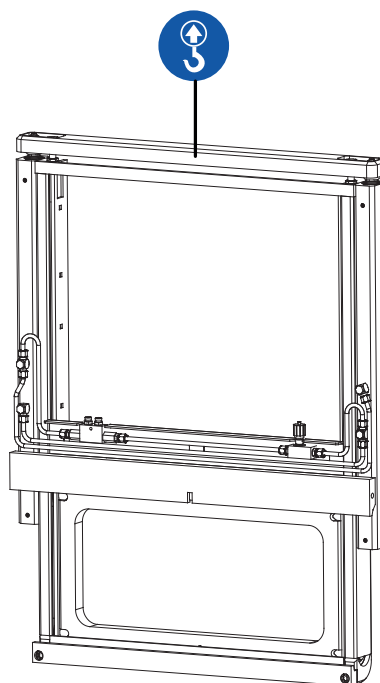
3



Connect the hydraulic system of the forklift to ports A + B of the Mast Height Extension.

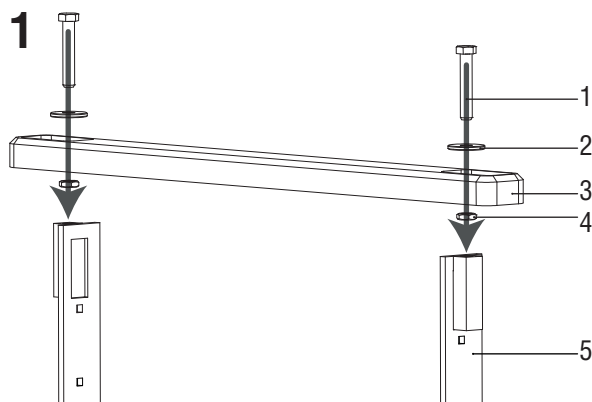
#Article N° depending on specific model. Please provide serial number when ordering.

Hoisting instructions

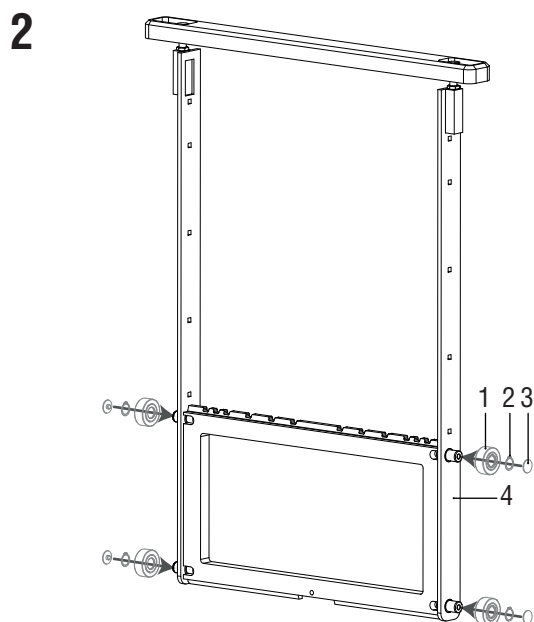


Lift the MHEH with hoisting belts. Fasten the belt around the connection profile.

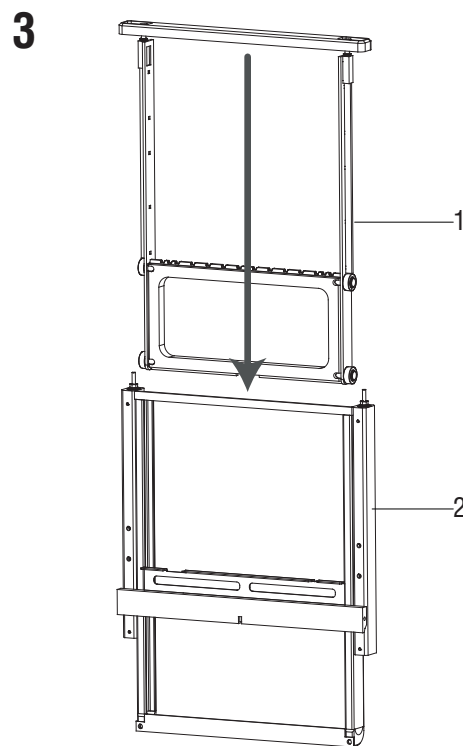
Assembly of Mast Height Extension



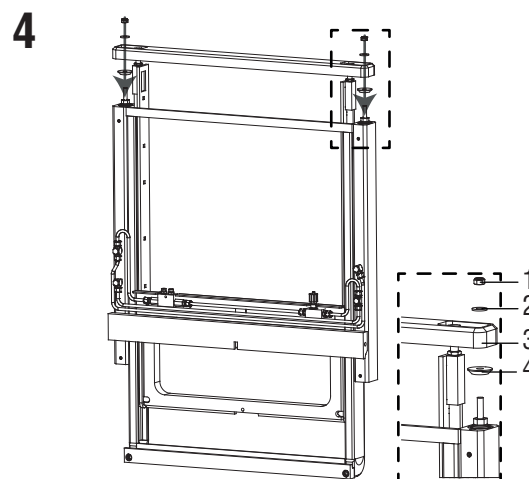
	Required parts description	Article number	Amount
1	Bolt M16	01010.160.090	2
2	Washer M16	M00000727	2
3	Connection profile	*	1
4	Nut M16	11360.160.001	2
5	Inside frame	*	1



	Required parts description	Article number	Amount
1	Track roller	M00021307	4
2	Retaining Ring 25mm	36000 25	4
3	Guidance cam	M00021306	4
4	Fork carriage	*	1



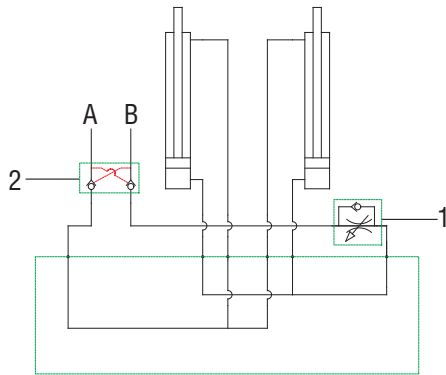
	Required parts description	Article number	Amount
1	Inside frame	*	1
2	Outside frame	*	1



	Required parts description	Article number	Amount
1	Nut M12	12300 M12	2
2	Washer M12	SRKB12530301	2
3	Connection profile	*	1
4	Support ring	M00021785	2

* Article N° depending on specific model. Please provide serial number when ordering.

Schematics hydraulics



POS nr.	Description	Article number	Amount
1	Flow control valve	M00013020	1
2	Double acting non-return valve	M00013160	1

Maintenance schedule

Nº	Description	Every 100 hours	Every 500 hours	Every 1000 hours	Every 2000 hours
1.	Check all hydraulic tubes for any leakage. Replace worn or kinked hoses and fasten leaking couplings.				
2.	Check all rollers for excessive wear. Replace parts if necessary.				
3.	Check hydraulic components like: seals, pistons and cylinder heads, once a year or 2000 hours.				
4.	Check Mast Height Extension once a year or 2000 hours.				

Troubleshooting

Observation	Symptom	Possible cause	Possible solution
Oil leak	Oil leak between cylinder head and piston rod	Bent piston rod	Replace piston rod and cylinder head
		Scratched/damaged piston rod	
		Leaking piston seal	Replace cylinder head
	Oil leak between cylinder head and fork blade.	Leaking O-Ring	Replace cylinder head
	Oil leak at connector	Leaking copper ring	Replace copper ring
		Loose connector	Tighten connector
Puddles of oil on the floor around Mast Height Extension	Oil leakage	Damaged or worn tubes	Replace tubes, refill reservoir
		Damaged coupling(s)	Replace coupling(s), refill reservoir
		Damaged valve	Replace valve, refill reservoir
Mast Height Extension moves irregular	Slowdown when lifting load, then back to normal speed	Air in hydraulic system	Bleed air from the hydraulic system by moving the Mast Height Extension up and down, without load, several times
	Mast Height Extension lowers a bit without being operated		
Fork carriage is tilting	Cylinders not moving in unison	A piston seal is leaking	Replace the piston with the leaking seal
		The length of the piston rods is unequal	Install piston rods of equal length
		Flow of hydraulic oil is not between 5-15 L/min	Please contact your supplier.
	Fork carriage moves without being operated	There is air in the hydraulic system	Bleed the system.
		A piston seal is leaking	Replace the piston with the leaking seal
Fork carriage is not moving down	Fork carriage can only move up	The double acting non-return valve is leaking	Inform your forklift supplier.

Do you have questions you need answered right now?

Call your nearest Cascade-KOOI Service Department.

Visit us online at www.cascorp.com

AMERICAS

Cascade-KOOI

U.S. Headquarters

2201 NE 201st

Fairview, OR 97024-9718

Tel: 800-CASCADE (227-2233)

Fax: 888-329-8207

Cascade-KOOI Canada Inc.

5570 Timberlea Blvd.

Mississauga, Ontario

Canada L4W-4M6

Tel: 905-629-7777

Fax: 905-629-7785



KOOI