

HK-Link

H25 & H50

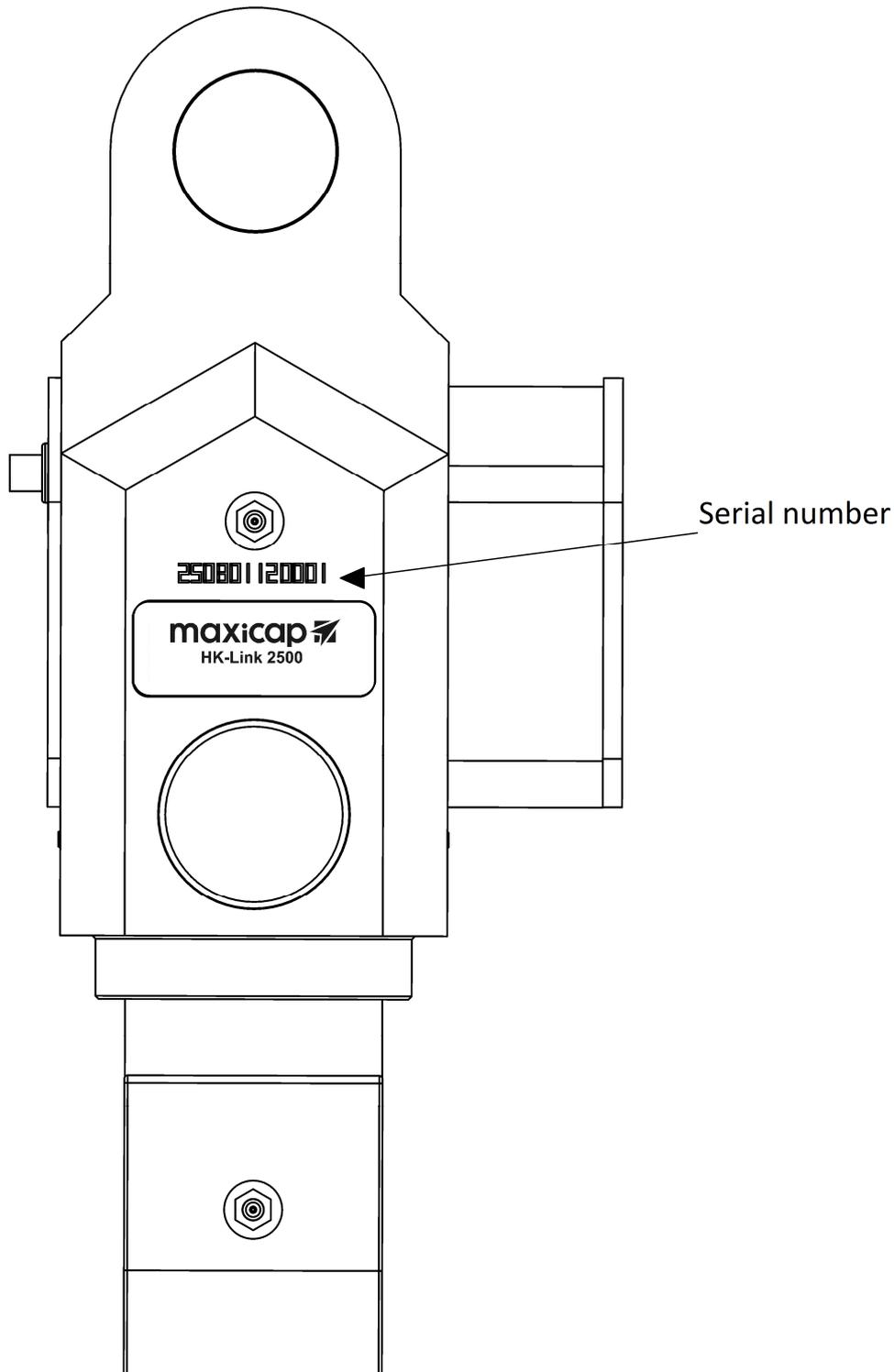
Operating Manual

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1. Introduction

Read this manual before operating the HK-Link. Deviation from the instructions in this manual can result in damage in machines or people.

The following instructions and information is only for the H25-XX-XX and H50-XX-XX models. Contact your local dealer and declare the serial number of your link if you are unsure of which model you have.



2. HK-Link

2.1 Specifications

Model: H25-XX-XX		Model: H50-XX-XX	
Load capacity:	2500 kg	Load capacity:	5000 kg
Weight:	~30 kg	Weight:	~45 kg
Height CC:	323 mm	Height CC:	419 mm
Width/depth:	178/120 mm	Width/depth:	198/140 mm
Width attachment:	80/100 mm	Width attachment:	100 mm
Studs:	35/40/45 mm	Studs:	35/40/45mm / 2"

2.2 Assembly instructions

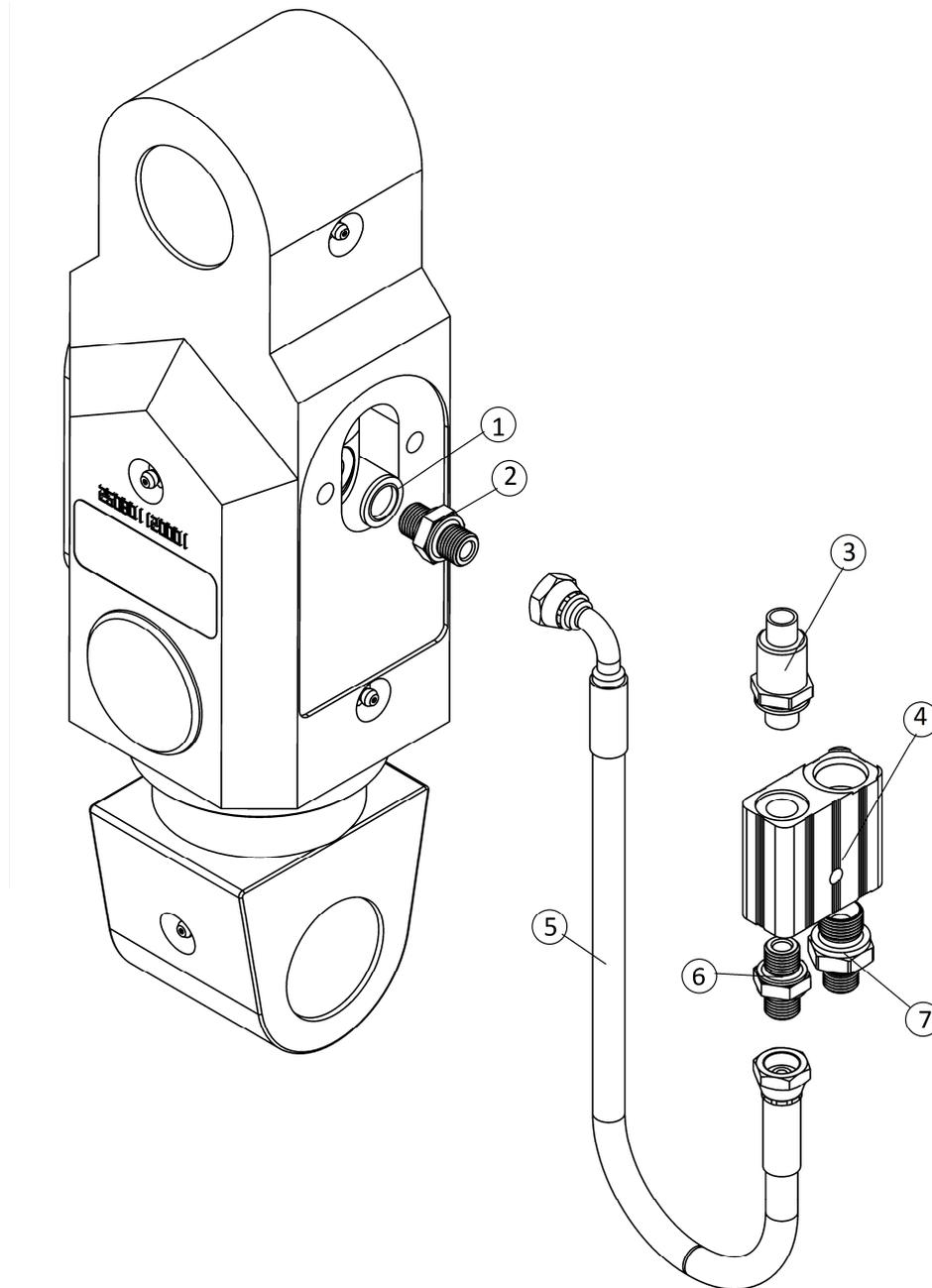
Check that:

- The crane's lifting capacity does not exceed the HK-Link's load capacity (2500Kg or 5000Kg depending of which model you have).
- All the bushes are right installed.
- All lubrication nipples are greased classified according to ISO 6743/9 or DIN 51502.

Crane assembly:

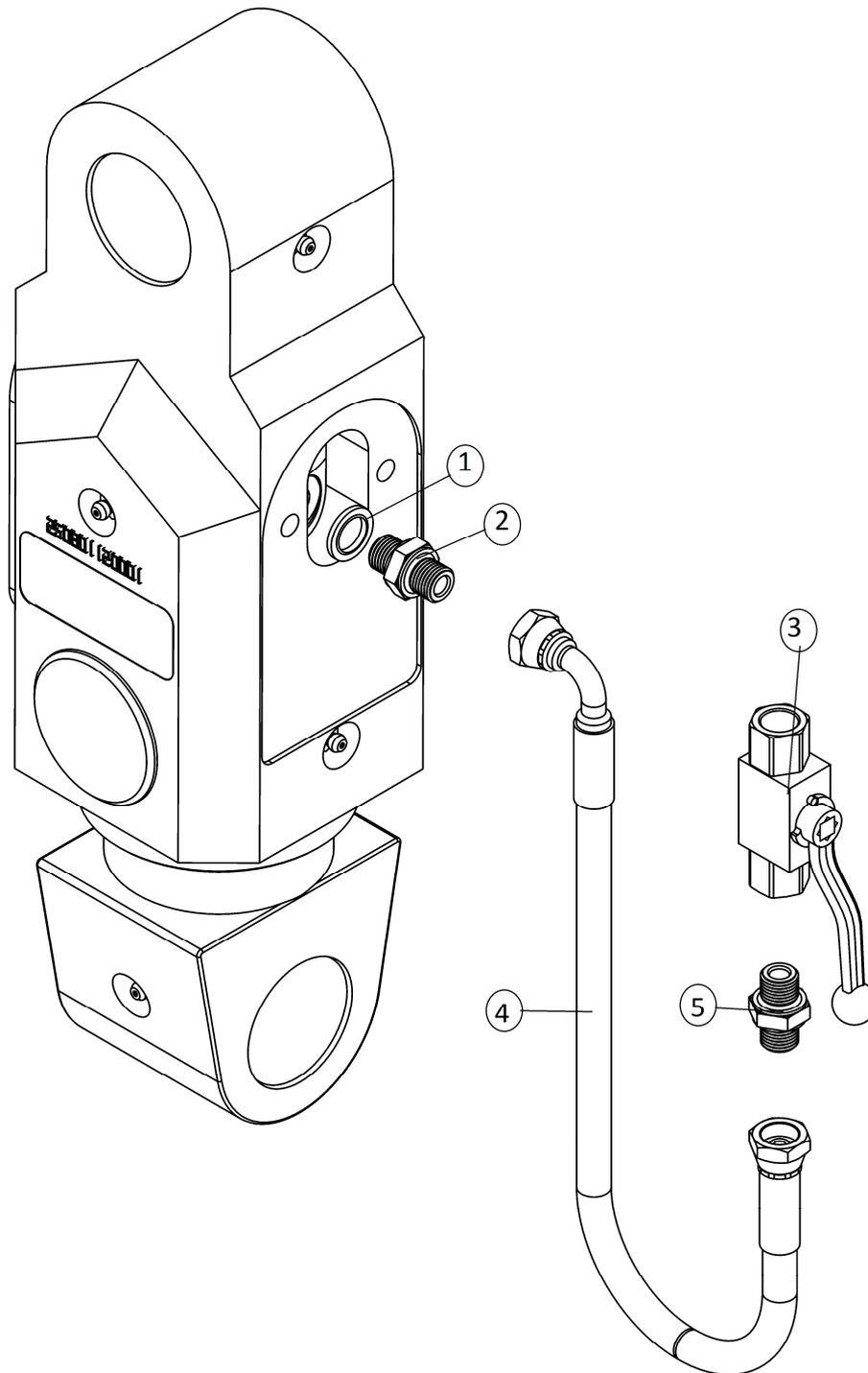
1. Disassemble installed link.
2. Assemble stud between rotor and link.
3. Assemble stud between link and grip.
4. Operate the crane up until the link and grip is off the ground.
5. Lubricate the HK-Link in all 6 grease nipples.
6. Assemble bush, hose, pressure sensor and manual or electric refill valve.
7. Make sure that all components can withstand high enough pressure (350 bar).
8. Unscrew the air nipple approximately one revolution.
9. Fill the HK-Link with oil until you see that it is fully together.
10. Release the hose connector and let the HK-Link flow apart. (Continue to point 9)
11. Open valve and let the HK-Link flow apart 5 mm. Close the valve and calibrate according to the instructions on page 10.

Hydraulic assembly with an electronic refill valve:



Nr	Type	Size
1	Rubber steel badge	1/4"
2	Adapter	1/4" uf - 1/4" uf
3	Pressure sensor	
4	Valve housing	
5	Hydraulic hose	1/4"
6	Adapter	1/4" uf - 1/4" uf
7	Adapter	1/4" - 3/8"

Hydraulic assembly with a manual valve:



Nr	Type	Size
1	Rubber steel badge	1/4"
2	Adapter	1/4" uf - 1/4" uf
3	Ball valve	1/4"
4	Hydraulic hose	1/4"
5	Adapter	1/4" uf - 1/4" uf

2.3 Safety

- Follow the crane manufacturer's safety precautions while using the HK-Link with a crane.
- Check that the HK-Link does not bend while in operation or parking.
- The HK-Link can never be run in to the stop positions or against the pendulum stops.
- Crane usage that prevents free hanging vertical load should be avoided.

2.4 Usage

The HK-Link is dimensioned for weighing load hanging free vertically. Maximum load is 2500Kg for H25-XX-XX and 5000Kg for H50-XX-XX.

Maintenance

- Regularly check bearings, grease them if necessary. Check no later than every third day.
- Regularly check that the gap in the links bearing has not exceeded 1,0 mm, if so the problem has to be repaired immediately.
- Check link gap daily, and refill oil if necessary.

2.5 Spare parts

Only original parts can be used. Submit serial number when ordering new spare parts.

Part number (H25/H50)	Type	Quantity
220235	Bushing Ø 35 mm	1*
220265	Bushing Ø 40 mm	1*
220300	Bushing Ø 45 mm	1*
PCZ 3224 M/ALT	Bushing Ø 2 inch	4
200220	Pressure sensor	1
34887	Electronic refill valve	1*
8031-04-04	Manual refill valve	1*
1140801/8	Grease nipple	6
PSK-200400-T46N / PSK200550-T46N	Sealing	1
GP6500400-HM061 / GR6500500-T51	Guide ring	2
15000028 / SGA 38 DIN 471	Circlip	1
254130048	Hex plug M48	1
254120004	Hex plug R1/4	1
1203210070	Screw MF6S 10x70	2

* Depending on the armament of the HK-Link.

3. Massic!

3.1 Mounting

The massic! Instrument is easily mounted by using a 50 mm magnet which is to be bolted to a suitable position in the cabin. The back plate on the instrument gives a positive attraction to the magnet.

1. One of two identical cables with M12 connectors is screwed to the instrument and the input marked "Instrument" on the connection box
2. The second cable of the same type is connected to the pressure transducer and
The corresponding input on the connection box.
3. The pushbutton or foot switch is connected to the connection box.
4. Finally 24 V power is connected to the red (PLUS) and black (MINUS) wires the red wire has a fuse holder with a 1A fuse (black).

Please try to find a place to mount the connection box and transducer that is protected against the entrance of pressurised water to give the components the right environment which will give them a long life.

The instrument is produced in versions adapted to different hydraulic links. The upper lid has a label with information about the link(s) that are suitable.

3.2 Basic adjustments

- We anticipate that the link is adjusted according to the manufacturer's manual.
- massic! has the choice of two software programs that can be selected by placing a jumper in different positions according to information on page 3.
- The Instrument can be used with manual or automatic summing function. The LED on the front of the instrument is lit in automatic mode and off in manual mode by pushing the PRINT-button for min 5 seconds manual/automatic mode is toggled.

3.3 Operation

See page 5 for a picture of the instrument with an overview of the buttons and displays.

Choose memory register by stepping up or down with + and - buttons. Lift the grapple with no load and push the ZERO-button to clear the summing memory and at the same time tare the instrument. Zeroes should be seen in both

displays. The last digit in the upper display is blinking to indicate that the instrument is ready to accept a weight for summing.

Manual mode: Take a load in the grapple. Activate the pushbutton / foot switch. The weight is added in the lower display. The last digit in the upper display is no longer blinking which means that the instrument is locked to make it impossible to make double summing by mistake. The lock is cleared when the weight in the grapple is below 300 kg that is when we unload it.

If we take a smaller load than 300 kg there will be a time lock for 5 seconds.

Automatic mode: In this mode the weighing cycle starts when the load is over 300 kg in the grapple. NOTE! If you want to move around to adjust the timber but do not want the weight to be added you can hold the pushbutton / footswitch down to deactivate the automatic summing temporarily.

When the loading is finished all sums are saved in the instruments until the ZERO-button is pushed.

By stepping the registers with the +and - buttons the memories can be read.

One push: Memory 1 + 2 is shown in the lower display.

Next push: Memory 3 + 4 + 5 is showed in the lower display

Next push: Total weight is showed in the lower display. If a printer is connected all memories and total weight is printed.

If the massic! system was delivered with the battery backup option the instrument will be working for 5 seconds after power is shut down.

The battery is automatically charged.

3.4 Description of the programs

Program #1 samples the weight value repeatedly until a number of samples are within a predefined "window". A beeping sound is heard while the program is working and when it ends the weight is added to the value in the selected memory. The time is dependent on how large the variations are in the sampled values. Jerky movements delay the loading cycle.

With this program you can push the adding button as soon as the load is free from ground. You must remember not to unload the grapple until the beeper is quiet or there can be a zero value added.

Program #2 is popular among drivers with a lot of experience and who have found a point in the weighing cycle that gives good results load after load. In manual mode the weight is added immediately as the pushbutton is pressed. In automatic mode there is a delay after which the value is added directly.

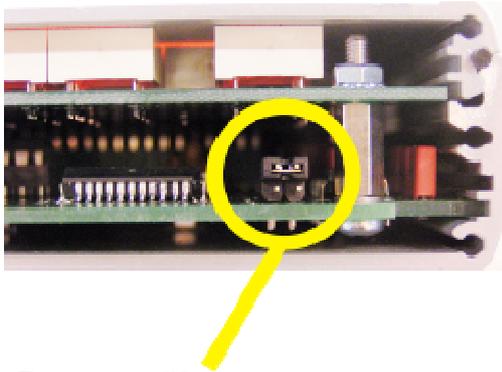
It is more demanding on the drivers skill but he can give very fast loading and still good accuracy. Not recommended for beginners.

3.5 Changing the program

To change program:

Remove the upper lid on the instrument. (Torx T-10).

Move the jumper according to the figures below.



Program #2



Program #1

3.6 Maintenance

Massic! Is sturdily built to withstand long use in harsh conditions. There is no need for service at regular intervals but a few good advices can be helpful.

The connectors should be tightened to be IP67 classed and have optimal humidity protection. If damage occurs so that the foil on the instruments front can be leaking water into the instrument you should have the foil repaired as soon as possible.

3.7 Adjustment of the instrument

Load the vehicle using memory #1. Do not power off the instrument.

Drive to a weighing bridge to get correct weight.

Push and keep pushing the - and **PRINT** buttons simultaneously until a beeping is heard and the LED is flashing. (It takes approx. 20 seconds). Release the buttons.

You have now entered the adjustment mode and by stepping + or - buttons the reading can be adjusted to be close to the correct weight.

The adjustment is ended by pushing the **PRINT** button to save and return to weighing mode.

3.8 Service:

Contact your dealer if you need service and/or spare parts.

You can also contact us at Maxicap AB. As manufacturer we stock all spare parts and can offer first class service on our products.

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Instruction for the *massic!* instrument

