



Users Manual

Lifting Yoke L20-3

EN Translation of original instructions

Version 1.1

2019

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1 Introduction

1.1 About this manual

Save this users manual for future use.

1.2 Disclaimer

Ganterud Solutions AB is not liable or bound by warranty if these instructions are not adhered to during operation, transport, storage, or service.

Ganterud Solutions AB reserve the right to make changes to the product, components, specifications, and modify the content of the documentation without further notice.

Ganterud Solutions AB is not liable for any internal or external modifications of the product, without written consent from Ganterud Solutions AB.

1.3 Warranty and complaints

Ganterud Solutions AB warrants that this product will be free from defects in material and workmanship for a period of one year from the date of delivery.

Within the warranty period Ganterud Solutions AB will repair or replace such products and component parts which are returned to Ganterud Solutions AB with shipping charges prepaid.

Ganterud Solutions AB reserves the right, on a case by case basis, to determine if the warranty applies or not.

This warranty will not apply to any product or component part which has been subjected to misuse, negligence or accident.

This warranty will not apply if the product has been modified or repaired by unauthorized persons or not according to specification given in this manual.

Any attempt to change or modify existing equipment with non-original components invalidates the warranty.

Buyer shall inspect the product promptly after receipt and shall notify Ganterud Solutions AB head office in writing of claims, including claims of breach of warranty, within thirty days after the buyer discovers or should have discovered the facts upon which the claim is based.

Failure of the buyer to give written notice of a claim within the time period shall be deemed to be a waiver of such claim.

1.4 Contact Information

Ganterud Solutions AB

www.ganterud.se

For any support issues, please contact Ganterud Solutions AB through:

e-mail: jan-ake@ganterud.se

telephone: +46 73 173 15 12 .

2 Safety

2.1 Definition of safety levels



Specifies a potentially hazardous situation that, if not avoided, **will** result in **death or severe injury**.



Specifies a potentially hazardous situation that, if not avoided, **may** result in **death or severe injury**.



Specifies a potentially hazardous situation that, if not avoided, **may** result in **light or moderate injury**.

NOTE

Specifies a practice not related to injuries that, if not avoided, **could** result in **property damage**.

2.2 Signs on the lifting yoke

- CE marking
- Warning, risk of pinching between chain and housing.
- Max load 20 metric tons
- Max chain angle 60°

2.3 General



Inaccurate use **may** result in **death or severe damage** to the equipment.

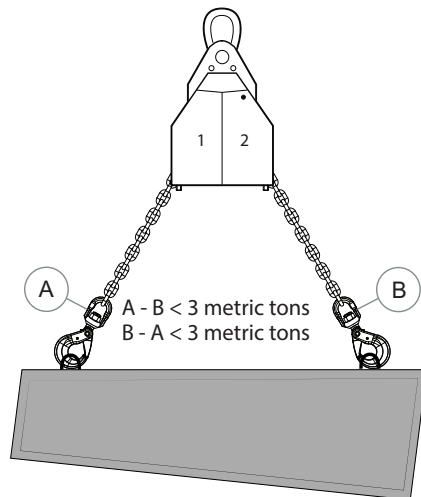
- Carefully read this manual before the lifting yoke is used.
- The lifting yoke must only be operated by trained personnel with sufficient knowledge about the lifting yoke.
- The lifting yoke must only be operated by personnel standing on solid grounds with clear view of the load.
- The lifting yoke is only intended for transporting loads using hook/shackle. Any other use is prohibited.
- All lifting aids used together with the lifting yoke must be provided with a built-in scale. In order to prevent overload of the lifting yoke
- The lifting yoke must not be used if the fixed protection covering rotating parts is damaged or has been removed.
- Use caution when handling the lifting yoke. There is a risk of crushing between the chain and the cover.

2.4 Incorrect handling

2.4.1 Imbalance

NOTE

The Lifting yoke must not be imbalanced.
The maximum load imbalance between hooks is 3 metric tons.

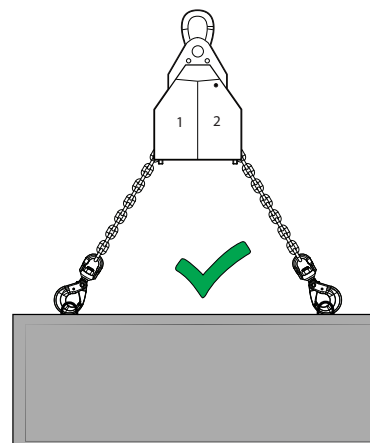
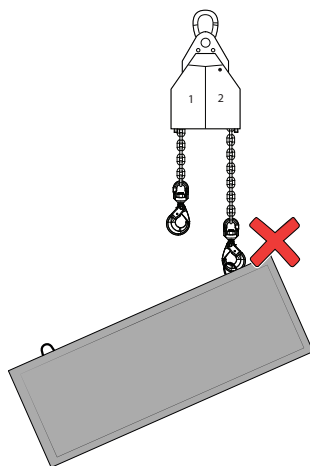


2.4.2 Lifting with one hook

NOTE

The lifting yoke must not be used for lifting and hoisting using only one hook.

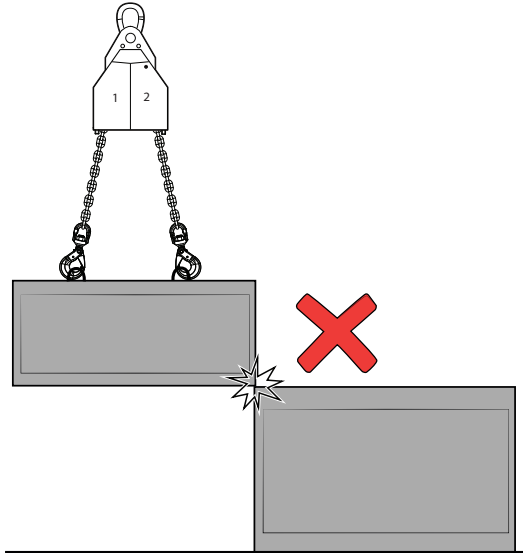
Both hooks must be used when lifting.



2.4.3 Impact

NOTE

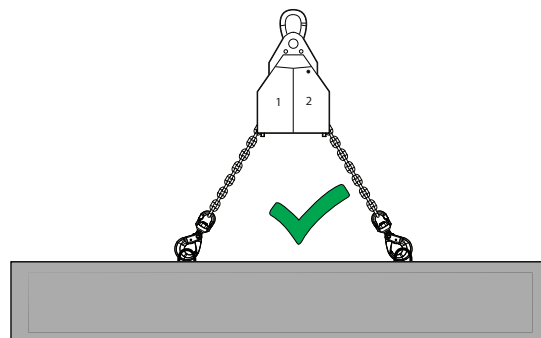
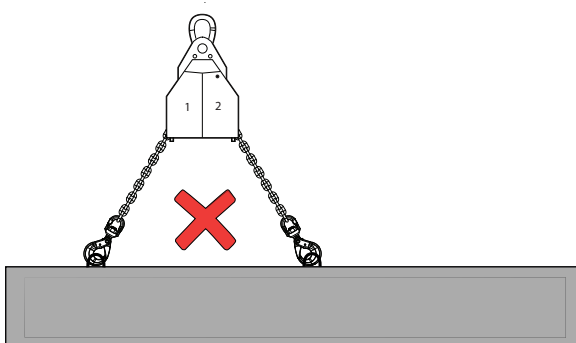
The lifting yoke may become damaged by impact.



2.4.4 Centering

NOTE

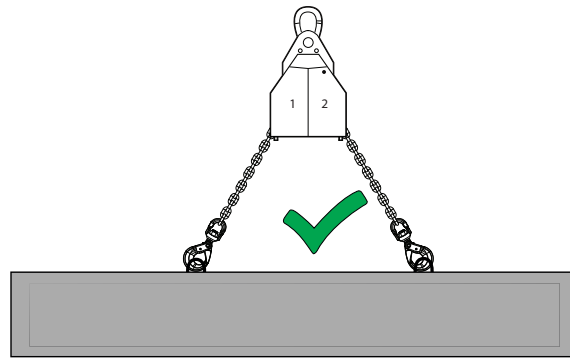
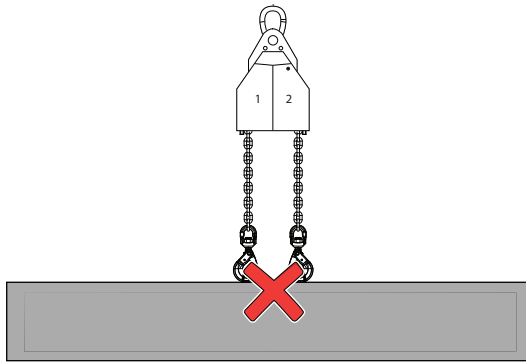
The lifting yoke must be centered above the loads center of gravity.



2.4.5 Wide load

NOTE

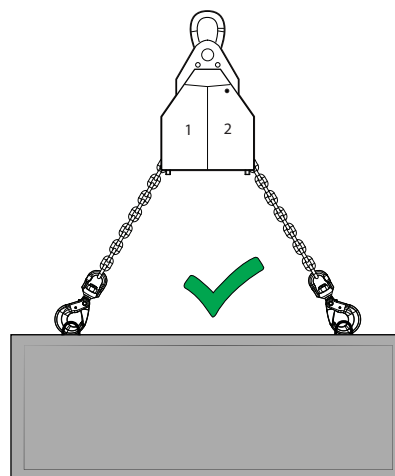
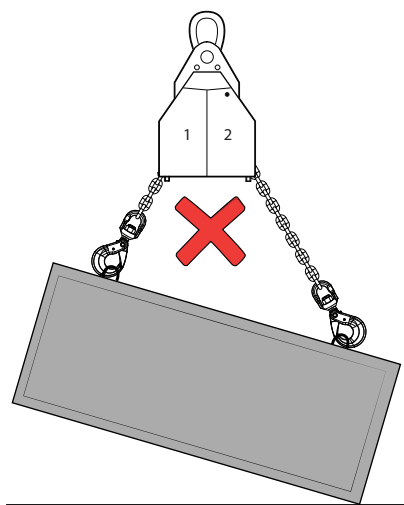
The chain angle must be as wide as possible, not exceeding 60° , to reduce the strain on the yoke if the load should begin to swing.



2.4.6 Relieving the load from the lifting yoke

NOTE

The load must be horizontal when touching down on a flat surface.



2.5 Safety during operation



Faulty handling or lack of control can expose personnel to fatal danger!

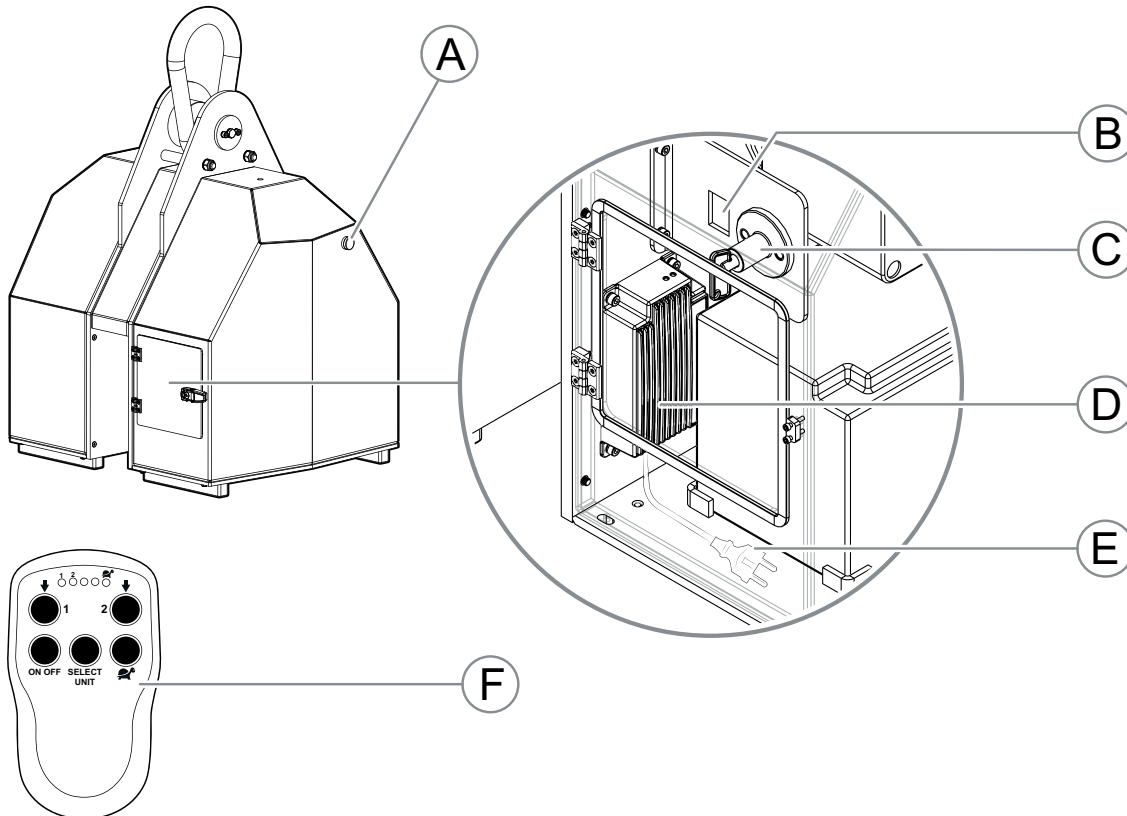
- Perform daily inspection of the lifting yoke before each use.
- Perform load inspection before each lift. Max load is 20 metric tons.
- Operating the lifting yoke must only be done using a radio transmitter when the operator stand on solid grounds with clear view of the load. Operators in cranes are not allowed!
- If several lifting yokes is on site, make sure that the registration number on side of the radio transmitter corresponds to the registration number on front plate of the lifting yoke.
- The lifting yoke is not intended for lifting people. Never stand on or under a hanging load.
- Connect hook/shackle directly to the load, or via chain or sling to the load.
- Make sure that the safety lock on each hook/pin on each shackle is properly locked.
- Lift the load slowly, to minimize the force of acceleration.
- Transport, movement during lift or lowering is associated with danger. Adapt the speed to minimize the danger for people and materials.
- Keep a careful lookout for people moving in the area of risk. Make people aware that transport is in progress.
- Have a constant lookout on the load during operation.
- Make sure that no person is crushed under the load when it is lowered, or pushed if the load starts to swing.

3 Description

The Lifting Yoke L20-3 is a radio controlled lifting yoke used for precise adjustment of heavy objects, for example construction elements, when using cranes or other lifting equipment.

The lifting yoke is powered by a built-in electrical motor equipped with a rechargeable battery. The lifting yoke can be used with all common types of cranes and lifting devices.

3.1 Overview



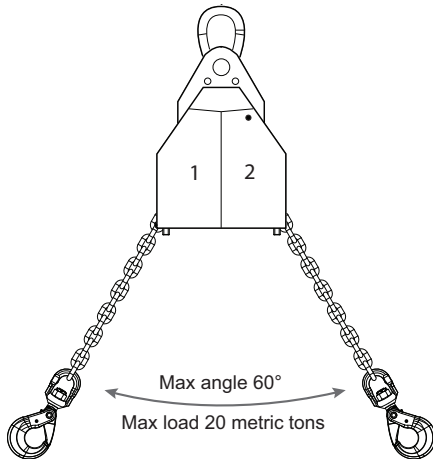
Position	Description
A	Indicator button, - Indicates that the power to the engine is turned on. - Short press, activates the free wheel function. See "Free wheel function" on page 14 - Press for at least 5 sec to calibrate neutral position. See "Calibration of the neutral position" on page 13.
B	Battery indicator. Indicates battery status. 25 - 100%.
C	Motor power switch. Cuts the motor's power feed. Battery charging still possible.
D	Battery charger.
E	Power cable for battery charger. Connect to 230V AC 50 Hz to charge batteries.
F	Hand controller.

3.2 Lifting capacity

NOTE

Exceeding the maximum chain angle or the maximum lifting capacity will damage the equipment.

Maximum lifting capacity equals 20 metric tons with a maximum chain angle of 60°



3.3 Radio transmitter

The lifting yoke is equipped with radio control, which is controlled by the supplied radio transmitter.

The radio transmitter is calibrated with the lifting yoke, and uses a specific radio frequency. Thus, several lifting yokes can be used on the same work site without interfering with each other.

Tandem-connected lifting yokes can be maneuvered at the same time using the same radio transmitter. The radio transmitter can also change between yokes.

If several radio transmitters are used on the same work site, and for some reason use the same radio frequency, they might interfere with each other. If this occurs, change the radio frequency of the affected radio transmitter and receiver.

Changing the frequency of a radio transmitter may only be made by authorized personnel.

3.4 Intended Use

The lifting yoke is intended for lifting objects with a maximum weight of 20 metric tons.

The lifting yoke can be used both indoors and outdoors, within a temperature range between -20 °C and +40 °C.

3.5 Disposal

Disposal shall be handled according to local rules and regulations.

4 Operation

4.1 Daily inspection

4.1.1 Before use



Each and everyone of the checkpoints below must be approved before the Lifting Yoke L20-3 is used.

Check that:

- the batteries in the lifting yoke are fully charged
- the batteries in the hand controller are fully charged
- the main power switch is set to the on position
- no mechanical damages is present on the product
- no mechanical obstacles is present on, and around, the chain
- the lifting hooks are intact and clean
- the locking mechanism on the lifting hooks are working

4.1.2 After use

Check:

- if the batteries in the lifting yoke need charging
- if the batteries in the hand controller need to be replaced
- that the main power switch is set to the off position
- that no mechanical damages is present on the product
- that no mechanical obstacles is present on, and around, the chain
- that the lifting hooks are intact and clean
- that the locking mechanism on the lifting hooks are working

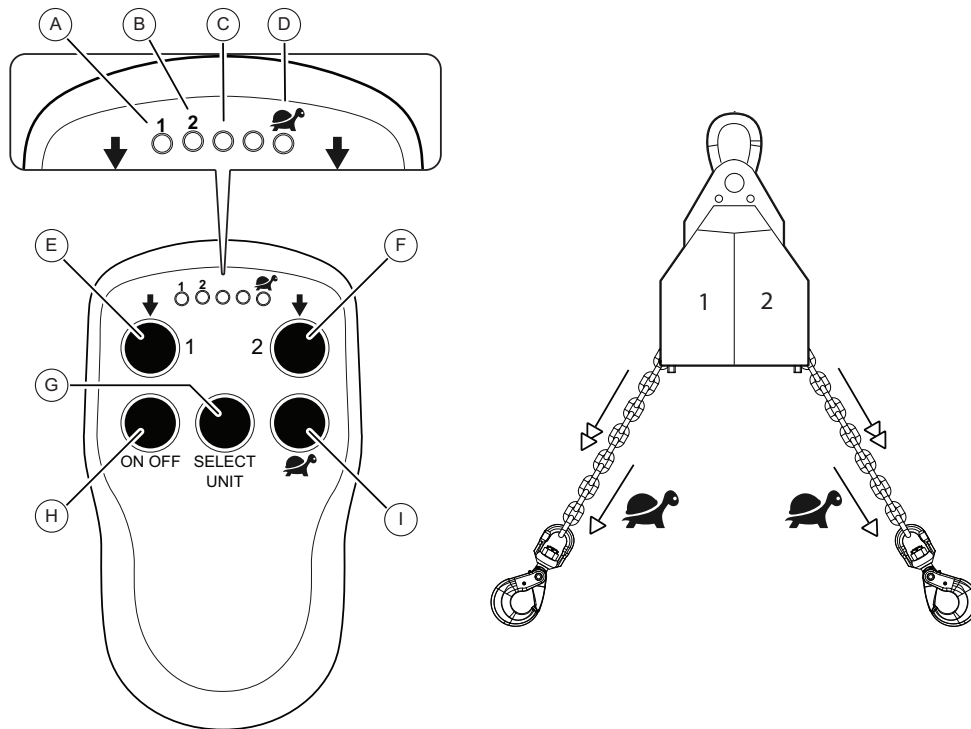
4.2 Operating the lifting yoke

4.2.1 Preparations

- Load control must be performed by the crane operator. Max load 20 metric tons.
- Plan the lift, see local regulations and work instructions.
- Make sure that the daily inspection is performed, see "Daily inspection" on the previous page.
- Make sure that the lifting tool is free from damages that could jeopardize safety.
- Check that the battery charger on the lifting yoke is disconnected from the power source.

4.2.2 Normal use

NOTE While carrying a load, the yoke must be in slow mode!



Position	Diode description
A	Yoke 1 active
B	Yoke 2 active
A+B	Tandem mode (yoke 1 and yoke 2 active)
C	Remote active
D	Slow mode active

Position	Button description
E	Lower hook 1 (raises hook 2)
F	Lower hook 2 (raises hook 1)
G	SELECT UNIT - Changes between yoke 1, yoke 2 and tandem mode.
H	On/Off
I	Slow mode

4.3 Calibration of the neutral position

Contact Ganterud Solutions AB for information on calibration of the neutral position.

4.4 Free wheel function

The brake of the lifting yoke can be released.

This function can, for example, be used to control the equilibrium of the load before the actual lift.

NOTE

The lifting yoke must be completely relieved when activating the free wheel function.

Do the following:

NOTE

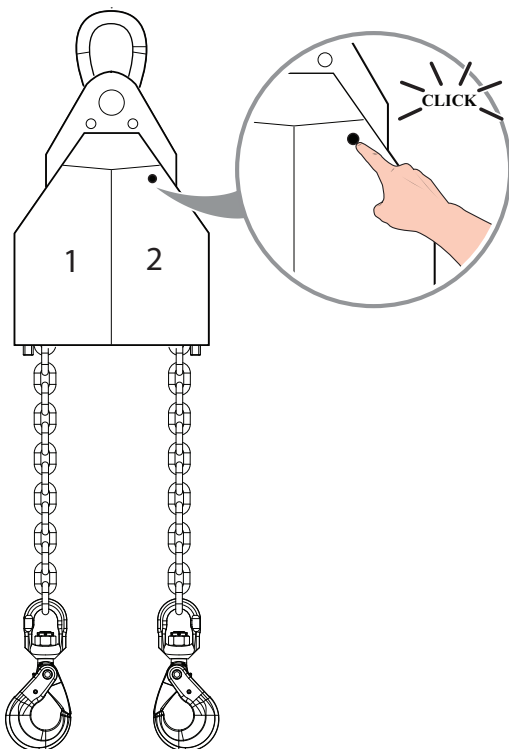
Long press of the indicator button for five seconds or longer will cause the lifting yoke to reset its neutral position.

Short press the indicator button.

A clicking sound can be heard when the brake is released.

NOTE

The free wheel function is disengaged when either of the buttons (1 or 2) on the hand controller are pressed.



5 Maintenance

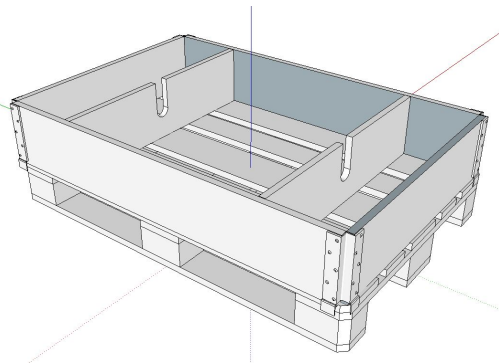
- Always decouple the lifting yoke from the crane and place it on the ground before maintenance is started.
- Always remove the key to the motor's power switch before maintenance is started.

5.1 Charging batteries

Charging batteries must only be done in a properly ventilated location.

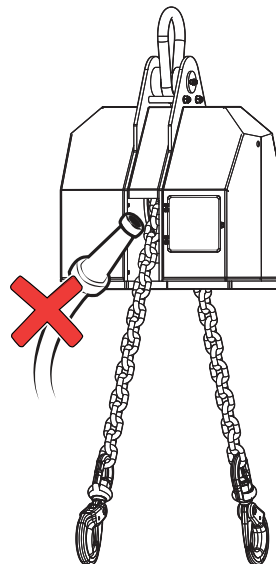
5.2 Storage and transport

Lifting Yoke L20-3 must be stored and transported in the original packaging.



5.3 Cleaning

Avoid using high pressure washer.
Water hose and sponge is recommended.
Never flush under the plate covering the chain wheel.



5.4 Inspection

Lifting Yoke L20-3 – lifting tool are not required to be inspected by a 3rd party.

Visual inspection at the work site by a designated inspector.

Make a note when the inspection is done.

It is recommended that a yearly inspection is done by a 3rd party.

Contact Ganterud Solutions AB for more information.

6 Technical data

Lifting capacity	Max 20 metric tons
Load imbalance capacity	Max 3 metric tons
Max leveling length	3 m
Max chain angle	60°
Number of lubrication point	1
Chain dimension	60.5 x 20 mm
Total chain length	6 m
Weight	approx. 332 kg
Height	1050 mm
Width	719 mm
Depth	623 mm
Operating temperature	-20°C – +40°C
Storage temperature	-30°C – +70°C
Relative Humidity (RH)	0 – 90 % at storage
IP rating	IP65

Control system

Radio range	100 m free sight
Current electrical engine	24 VDC
Power at rest	50 mA
Power max continuous	60 A
Power peak	100 A

Hand-held controller - control system

Number of function keys	5
Power output	5 mW
Power supply	3V (2xAAA)
IP rating	IP67
Power	15 mA when transmitting

EG-försäkran om överensstämmelse.

Enligt 2006/42/EG, bilaga 1 avd 1 och 4 (AFS 2008:3 bilaga 2A).

ORIGINAL

Tillverkare / representant : Ganterud Solutions AB.

Adress : Pumpgatan 4, 652 21 Karlstad.

Försäkrar härmed att,

Maskin /anläggning : Lyftok L-20-3.

Serienummer : 100.110. 0-500.

Överensstämmer i tillämpliga delar med följande direktiv:

Maskindirektivet 2006/42/EU bilaga 1 avd. 1 och 4.

EMC direktivet 2014/30/EU.

Lågspänningsdirektivet 2014/35/EU.

Uppfyller i tillämpliga delar kraven i standarder och specifikationer som anges nedan:

SS EN ISO 12100-2010¹⁾

SS EN 13155+A2:2009⁴⁾

SS EN 61000-6-4²⁾

SS EN 60204-1³⁾

SS EN 61000-6-2³⁾

ELSÄK-FS 2008:1-4⁶⁾

- 1) Maskinsäkerhet, 2) EMC emission, 3) EMC immunitet, 4) Lyftkranar - Säkerhet - Lösa lyftredskap 5) Maskinsäkerhet el., 6) LVD harmonisering.

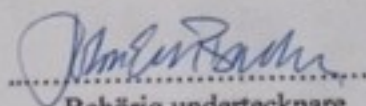
Behörig att sammanställa den tekniska dokumentationen: Ronny Tyllander Abtec Consult AB Viaduktgatan 1, 69131 Karlskoga.

KARLSTAD 2019-02-21

Ort och datum

PUMPGATAN 4
652 21 KARLSTAD

Adress



Behörig undertecknare

JOHN-ERIK BREKKE

Namnförtydligande