Instruction for use

U-1049_GB

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Prepared by: Thomas Lundsgaard

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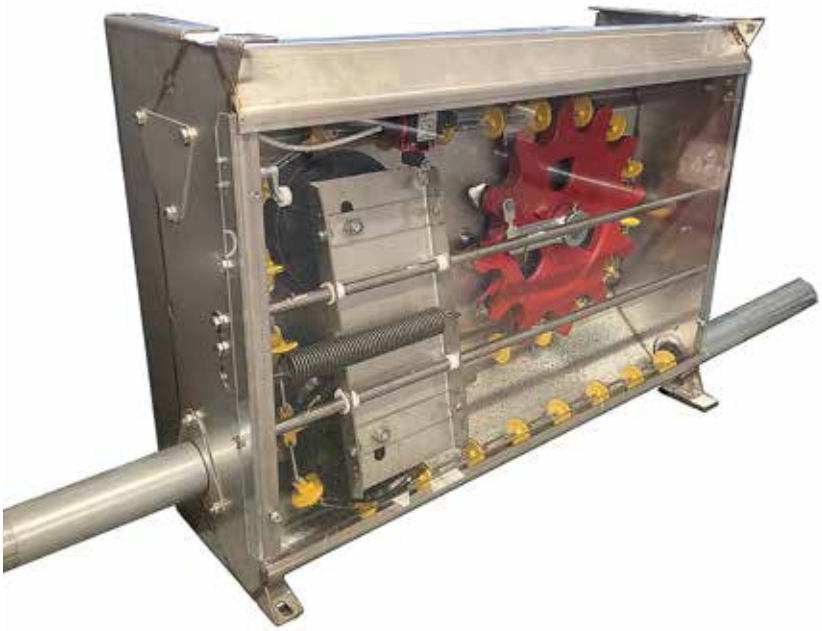
Responsible manufacturer: ACO Funki

Machine: MAXI drive unit



ACO FUNKI A/S
Kirkevænget 5
DK-7400 Herning

Tel. +45 9711 9600
www.acofunki.com
www.egebjerg.com

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1. Introduction

Original instructions for use

This user manual has been prepared according to EN ISO 12100:2011 and is ACO Funki's original user manual for "Maxi driveunit" (hereafter referred to as the machine).

The Danish version is the original sampel, all other language versions refer to the original sample.
The English version is translated from Danish to English using CHAT GPT / DEEPL TRANSLATE.

Purpose

The purpose of this instructions for use is to ensure correct use and maintenance of the machine.
The instructions for use are general instructions for use, with an emphasis on the safety aspects that relate to the interaction of the assembled machines.
For detailed information regarding the individual machines and their function, please refer to the respective instructions for use.

Availability

The instructions for use must be kept in a place known to the staff, where it is easily accessible to operators and maintenance staff.

Knowledge

It is the employer's (machine owner's) responsibility to ensure that everyone who must to service, clean, operate, maintain or repair the machine has read the user manual; at least the parts of it that are relevant to their work. In addition, everyone who must to operate, service, maintain or repair the machine has a duty to search for information in the user manual themselves.

Key to symbols

If the safety instructions described in this manual are not observed, personal injury or material damage may result. Such damage may prevent the machine from functioning correctly. Safety instructions and instructions for trouble-free operation are accompanied by the following symbols:

Warning symbol in accordance with EN ISO 3864 B.3.1.
Caution: risk of personal injury or material damage.

Warning symbol in accordance with EN ISO 3864 B.3.1.
Caution: risk of electric shock.

Information symbol in accordance with EN ISO 3864 8.4.
Important instructions for preventing damage to the machine and its function.
Instructions for reliable, problem-free operation

Sections of this manual accompanied by one of these symbols should be read with particular care!

2. General

2.1. Manufacturer

The machine is manufactured from:

ACO FUNKI A/S	+45 9711 9600
Kirkevænget 5	acofunki@acofunki.dk
DK-7400 Herning	www.acofunki.dk

2.2. The designation of the machine

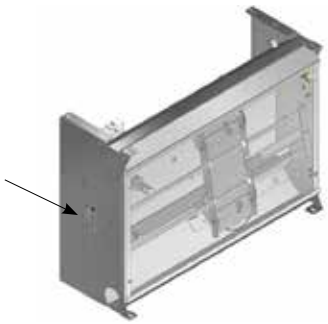
The full name of the machine is:

0211-810, MAXI DRIVE UNIT 38 MM, MASTER CHAIN
0211-815, MAXI DRIVE UNIT 50 MM, MASTER CHAIN
0211-820, MAXI DRIVE UNIT 60 MM, MASTER CHAIN
0211-825, MAXI DRIVE UNIT 76 MM, MASTER CHAIN
0211-830, MAXI DRIVE UNIT 60 MM, POWERLINE

0211-850, MAXI DRIVE UNIT TO FEED TRANSPORT, MASTER CHAIN 76 MM
0170-107, MULTISTRAW MAXI DRIVE UNIT 76 MM

2.3. Machine plate

The CE-label is placed on the side of the machine.

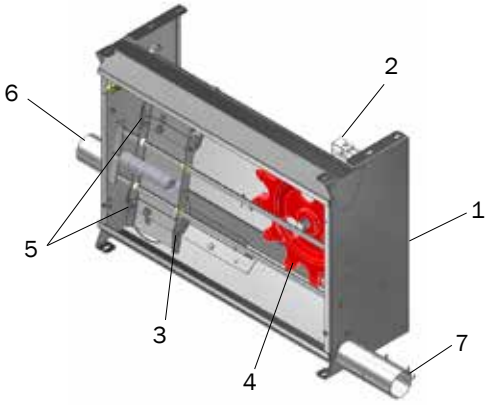


3. Overview and application

3.1. General description

The machine consists of:

1. House of stainless steel
2. Gearmotor
3. Transparent cover, removable
4. Drive wheel
5. Tension wheels
6. Inlet
7. Outlet



Find detailed system drawing in section 11.4.

3.2. Functional description

The machine is part of an overall system. The system can be built in different ways and have different modes of operation.

3.3. Purpose and intended use of the machine

The machine is intended to be used in installations with dryfeed systems and dryfeed transport designed for pig production. In addition, the machine is used in ACO FUNKI straw systems.
The purpose of the machine is to pull a feed chain through transport pipes that are routed over troughs, feeders, lying areas or silos. Feed or straw is placed between the chain pieces. Different types of outlets are mounted on the transport pipes so that feed or straw can be delivered to the intended location in different ways. Between the machine and the feed or straw delivery point, a reception unit, flexauger or straw unit is installed to dose the right amount of material into the feed chain so that it is not overfilled.

The machine may only be used for dry feed (pelleted and ground feed).
Model 0170-107 is designed for ACO FUNKI straw systems.

3.4. General safety rules and warning of forseeable misuse

The machine is designed according to the latest technical standards and recognized safety regulations and is reliable. Nevertheless, there may be danger to the user or other persons and material damage may occur if the machine is used by unauthorized persons or for other than the intended purpose.

The machine should only be used when:

- The safety rules are read and followed carefully.
- It is used for its intended purpose and the general rules on safety and accident prevention are observed. If, despite the above instructions, the machine is used for any other purpose, all warranty obligations and other liability will be void.
- Only original accessories and spare parts from ACO FUNKI are used.
- It is intact and has not been modified in any way.
- There are guards on all moving parts.
- It is ensured that there is no other work on the system.
- All moving parts run freely and there are no noises.
- Electrical cables are undamaged.
- The currently applicable national and international accident prevention regulations and guidelines as well as general safety requirements are observed.

3.5. Operating limits

The machine has a maximum limitation in relation to the length, construction and capacity of the system. Contact your dealer if you want to extend or modify the system.

3.6. Product's service life

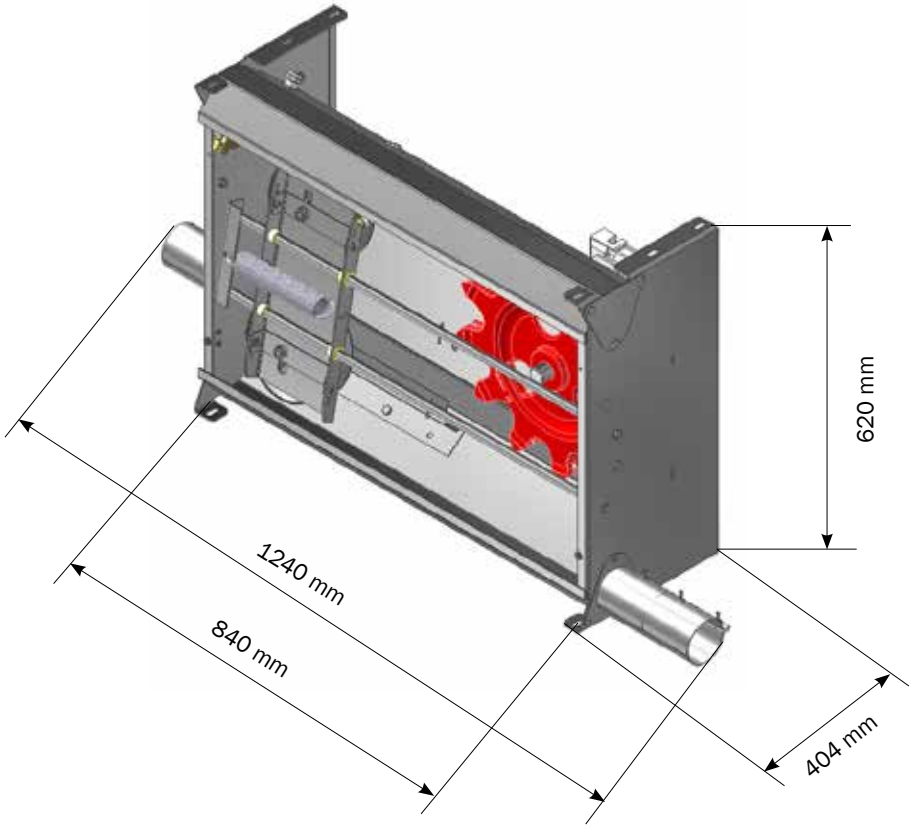
This machine is expected to operate for approximately 45.000 operating hours. After 20 years, the machine must be reviewed and a new risk assessment performed and the safety-relevant components replaced. Wear parts - all moving parts, are expected to be replaced after approximately 12.000 hours.

Maintenance and replacement of the machine's parts and safety-related components must be carried out regularly. This must be done in accordance with the individual components' instructions for use.

The machine may be used indoors and outdoors. When placed outdoors, the machine must be covered.
ACO FUNKI has a matching cover in fiberglass 0211-832.

3.7. Technical data

3.7.1. Dimensions



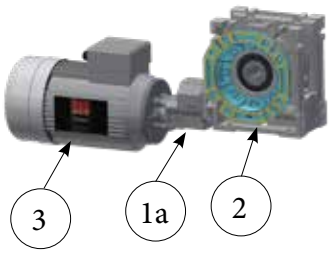
3.7.2. Weight

All versions: about 95 kg

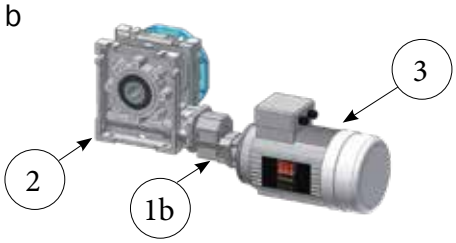
3.7.3. Power suppply

Engine specifications									
	Item no	**IE Nr.**	**V∆/Y**	**F**	**I**	**kW**	**Motor RPM**	**Shaft RPM**	**Chain speed meter/minut**
a	45101443	03	240V / 400V	50Hz / 60Hz	8,3 / 4,8	2,2	1440 /1730	18/22	22/26,4
* b	45101445	03	240V / 400V	50Hz / 60Hz	8,3 / 4,8	2,2	1440 /1730	29/35	32/41
1.a	45101441								
1.b	45101444								
2	45101442								
3	45101440								

a



b



*0211-850 Maxi Drive unit to feedtransport master chain 76 mm
*0170-107 Multistraw MAXI Drive unit 76 mm

For technical data for electrical equipment, see the rating plate on the individual machines.

The machine is equipped with 2 safety switches:
- Chain switch - stops the machine if the chain breaks.
- Switch for cover - the machine cannot run without cover.

Optional accessories
The machine can be equipped with a speed sensor (inductive sensor)

3.7.4. Noise:

The machine has been noise tested. The noise level was measured to be below 70 dB.

3.8. Operator workstations, location and layout

As the machine is always under control, the operator will not come into contact with the machine during operation.

During repair and maintenance:

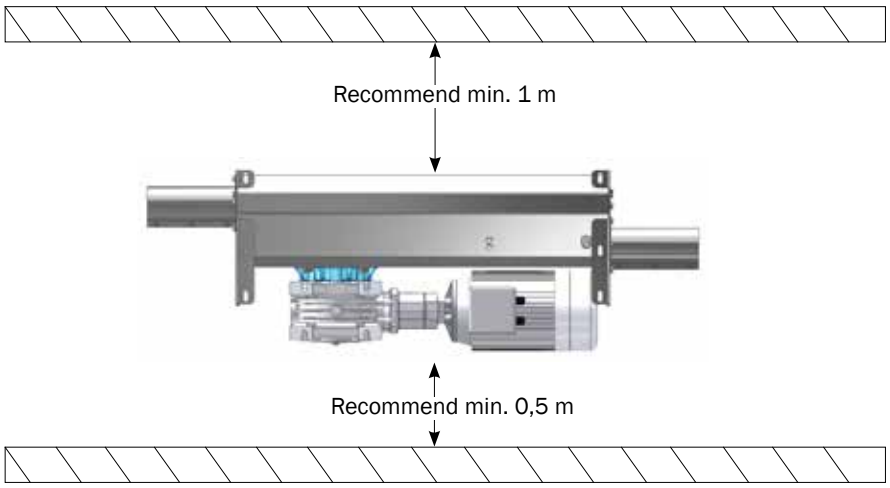
- The workplace is all around the machine. See section on maintenance for more information.

3.8.1. Necessary space around the machine:

Space requirements for people servicing the machine:

There must be sufficient space for service personnel to use appropriate working postures and movements. The following distances are recommended:

- Behind machine to wall - minimum 0,5 meter
- In front of machine to wall or other equipment - minimum 1 meter



Refer to the M-1051_GB Installation Guide for best position of the machine.

3.8.2. Environment:

The machine is designed for indoor use - however, a cover can be purchased if the machine is used outdoors. The machine may only be used in accordance with the following operating limits.

Allowable temperature range	-15 °C to 40 °C
Permitted relative humidity (non-condensing)	Min. 20 % Max. 80 %

3.8.3. Lighting

Around the machine	Min. 200 lux
Repair and maintenance work	Min. 250 lux In connection with repair maintenance, sufficient light is brought as necessary to solve the task safety.

4. Handling

4.1 General handling instructions

The product must not be subjected to impact, sudden temperature changes, direct sunlight, damp surroundings or strong electromagnetic fields.

4.2 Transport packaging

The product is delivered packaged. Do not remove the packaging until the product has been transported to the installation site.

4.3 Storage

Store the machine in a normally temperate and dry environment.

4.4 Unpacking

On delivery, check the product for transport damage. ACO Funki must be informed of any transport damage without delay. If the product is damaged in any way, it must not be taken into operation.

4.5 Possible risks during installation

The machine contains parts that can be sharp and heavy. Use work gloves and safety footwear when working with the machine.

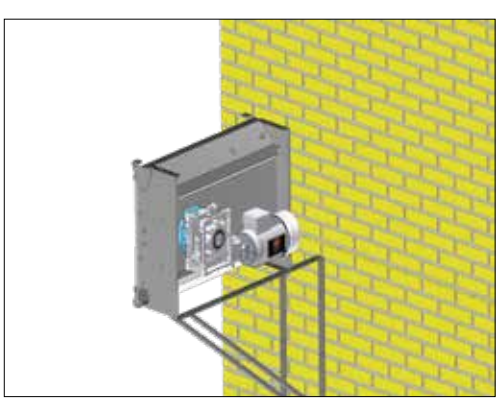
5. Instructions for installation

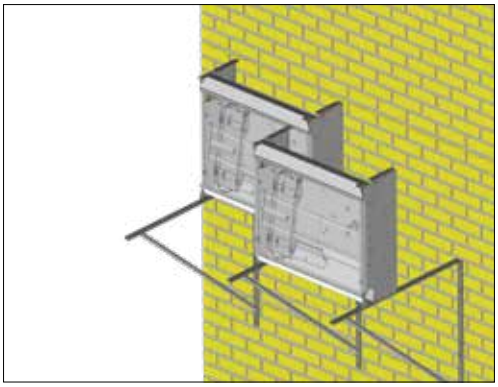
5.1 Requirements for the foundation

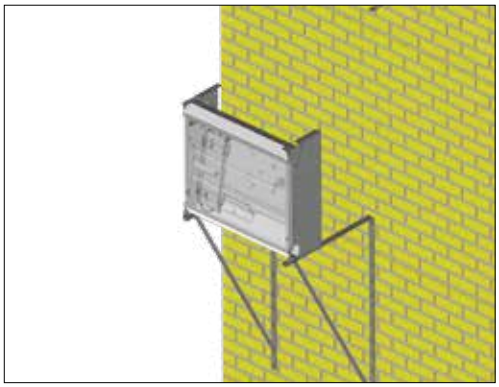
The surface must be level, stable, solid and secure. Fasten the drive unit to the ground or wall.

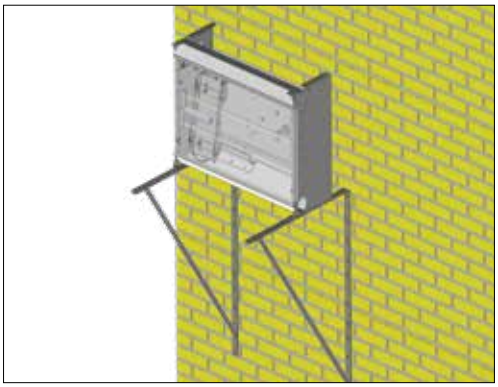
5.2 Installation with supports in the wall and on the floor

For wall mounting, the drive unit can be mounted in different ways:

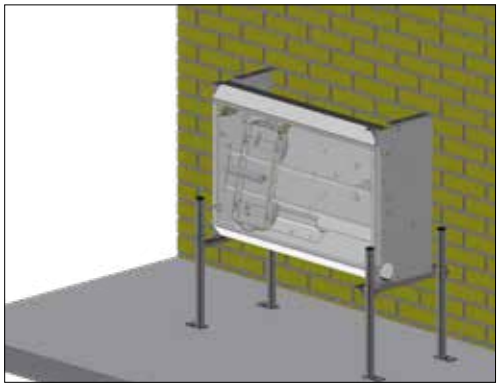








Mounting on floor:



5.3 Included components

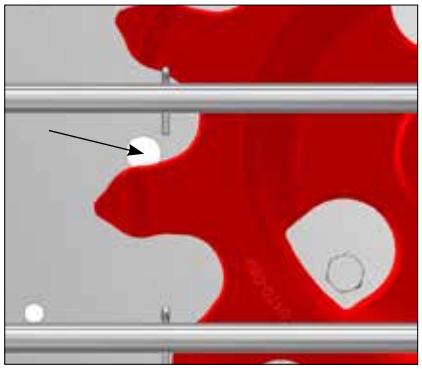
- Inlet and outlet
- Union connectors
- Label and breaking parts

Optional equipment:

- 71900038, Inductive sensor for shaft speed monitor (optional equipment)

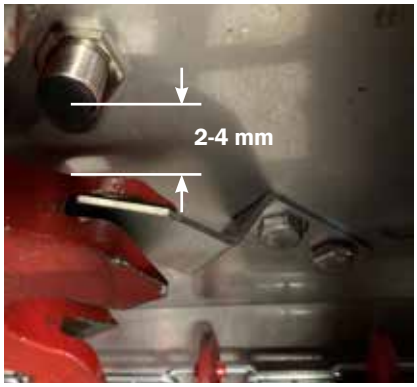
5.3.1 Installation of inductive sensor for shaft speed monitor (optional equipment)

If Multicontroller or Funki Net Dry Feed controls are used, an inductive sensor can be fitted.

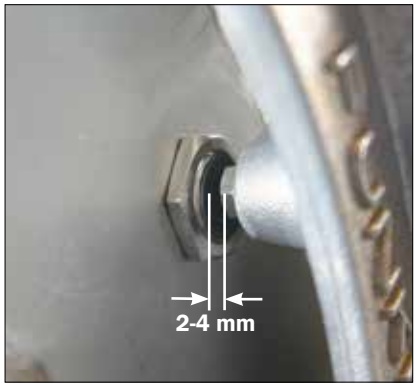


When mounting the inductive sensor, remove the cover from the hole next to the gear.

Insert the inductive sensor (without the outer nut) through the hole. Screw the nut on from the other side.



The induktive sensor (without the outermost nut) is passed through the hole. The nut is screwed on from the other side.



It is ensured that the distance between screw and engine speed sensor is min. 2 mm and max. 4 mm.

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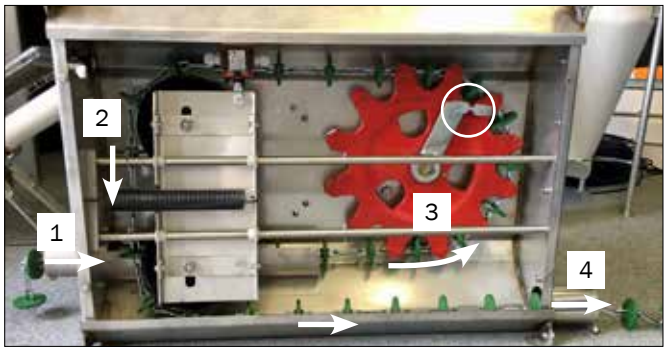
5.3.2 Assembly and installation of transport chain



The breaking part on the drive wheel is removed (marked with a circle).

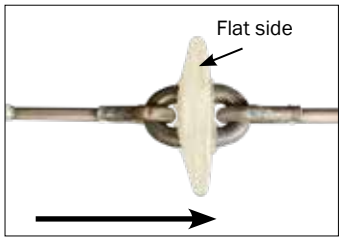
The transport chain is guided through the inlet pipe (1), around the drive wheel (2) and the tension wheel (3) and through the outlet pipe (4).

The chain is moved forward by means of the drive wheel, which can be turned freely when the breaker is removed.

Powerline or Master Chain can be used for feed transport. It is important that the chain is inserted and turned correctly. For both types of chain, the system must, after loading the chain, run without feed and with attached swivels for min. 2 hours, to ensure that the chains are straightened; **however, this does not apply to 38 mm chains.**

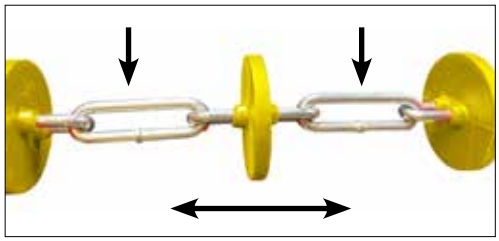
See the Powerline and Master chain assembly instructions for more assembly instructions.

PowerLine chain

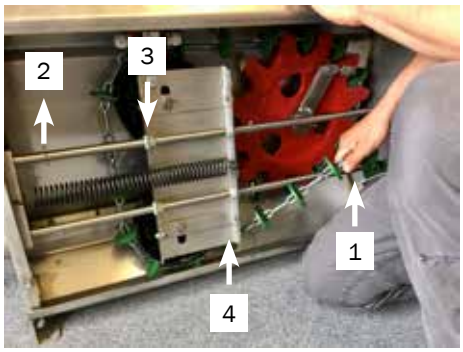


Make sure the pieces are facing correctly.The flat side of the pieces must face the feed direction

Master Chain



Make sure the weld joint on the joints-faces away from the center of the drive wheel



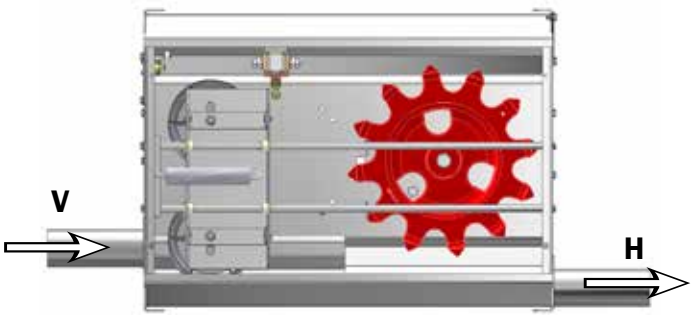
The tensioner wheels are thghtened on delivery.

When the connecting link is mounted, the chain (1) is pulled up so that the tension wheel bracket is pulled to the side (4). Hold the pull while the locking pin (2) on the slide bar is removed and inserted into the second hole on the slide bar (3). The tension in the chain can then be relaxed again. When assembling the transport chain, the aim is to get the tension wheel as close to the drive wheel as possible.

The breaking part mount again on the drive wheel (marked with a circle).

Remember to move the locking pin back to (2), before starting the drive unit.

5.3.3 Inlet and outlet



The drive unit is delivered with drive direction V to H

To mount the inlet- and outlet pipes, remove the front cower.

V = Inlet left side
H = Outlet right side

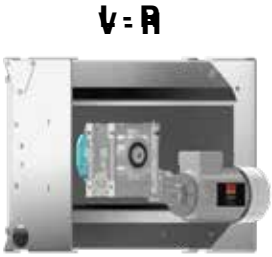
Inlet- and outlet pipes must be supported with posts or wallbrackets close to the drive unit.

The drive unit shown has inlet on the left side and outlet on the right side. Model designation V-H.

Model designation L-R. It can be turned around.

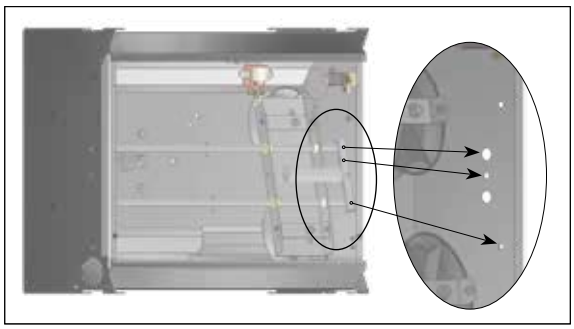
5.4 Change of direction

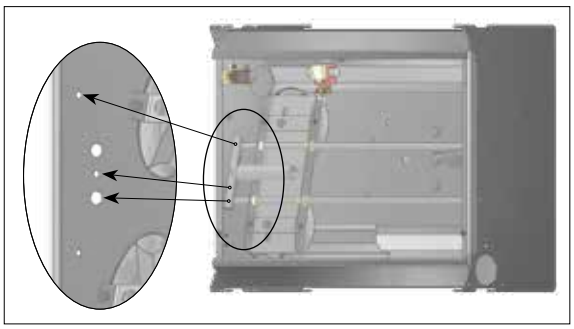
The drive unit's drive direction can be changed. The following procedure describes changing direction from left inlet to right inlet.



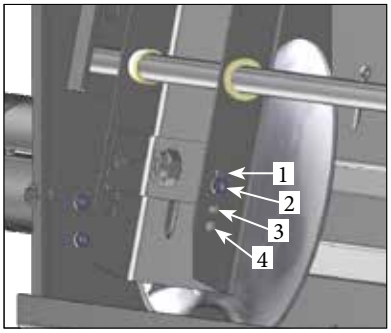
Change the gear from R-L to L-R by disassemble the gear and changing the position to the flange.

Tension wheel console



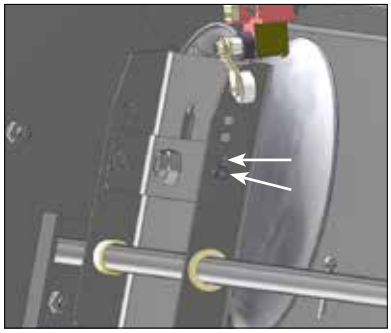


Change of tension wheel console from R-L- til L-R. Use the holes shown for mounting.



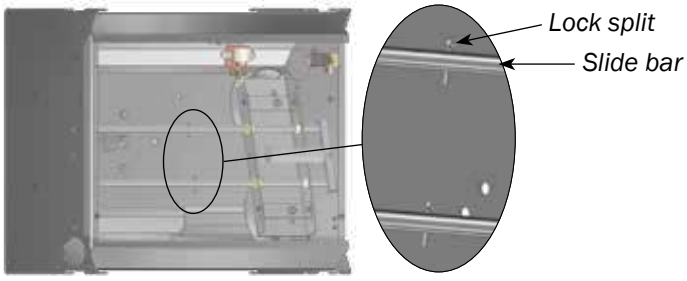
The tension wheel is adjusted according to chain size:

1. *76 mm*
2. *60 mm*
   (default configuration)
3. *50 mm*
4. *38 mm*



At the top, the tension wheel is set in one of the two lower holes.

The slide bars must be turned so that the locking splits can be inserted from above.



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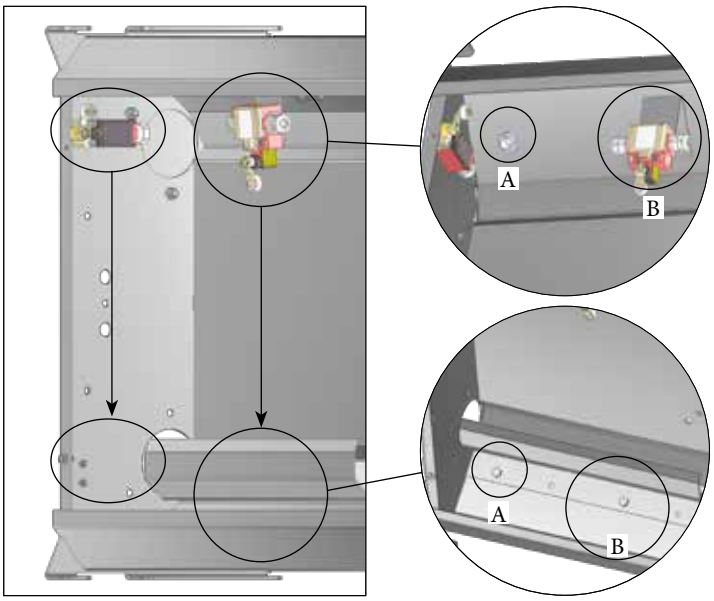
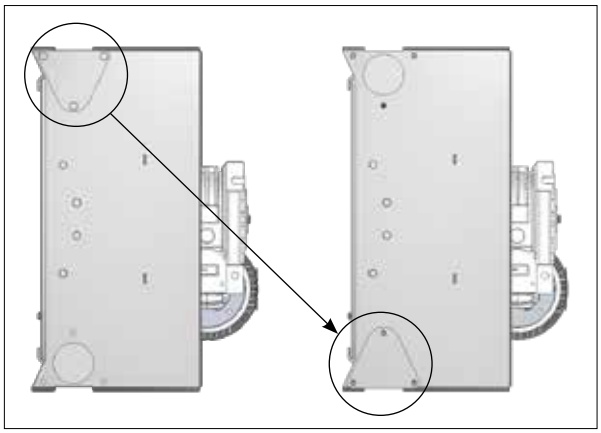
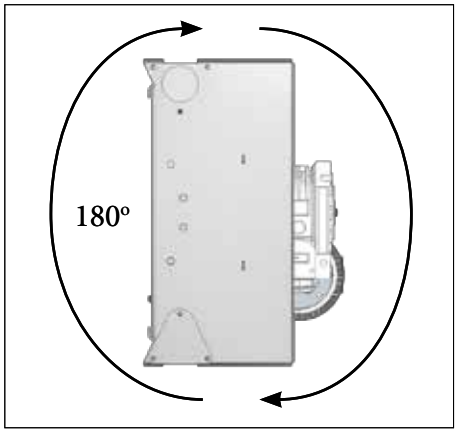


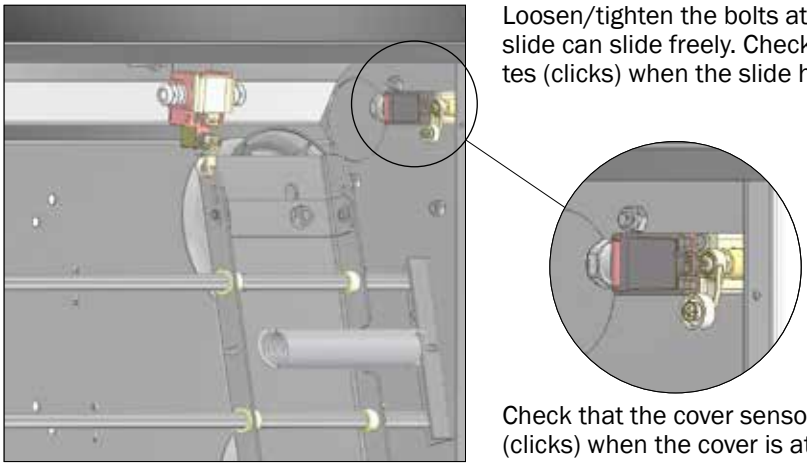
Move sensor for cover, tension wheel, cable entry and feed intake.



Move feed intake.



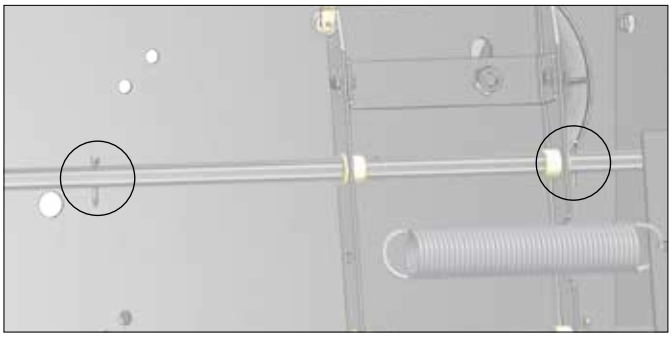
Then turn the machine on the head.



Loosen/tighten the bolts at the ends to ensure the slide can slide freely. Check that the sensor activates (clicks) when the slide hits the locking splits.

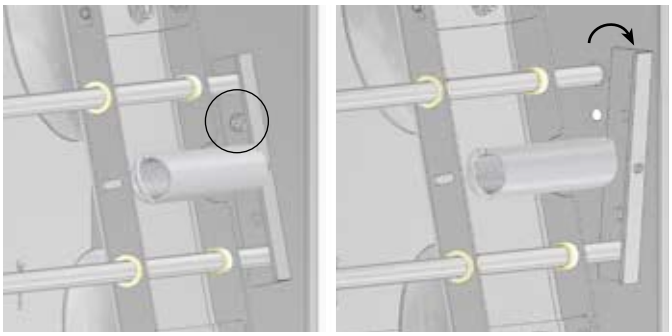
Check that the cover sensor is activated (clicks) when the cover is attached.

Assembly of drive wheel after installation:

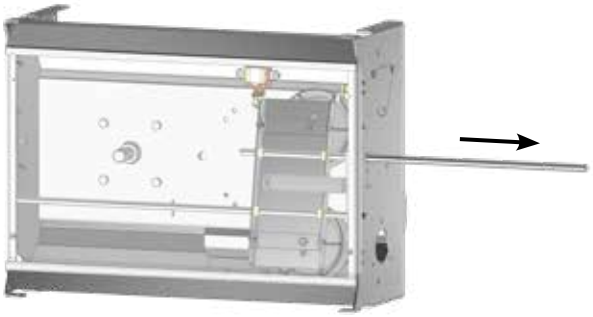


Remove the locking splits on the **upper** slide bar.

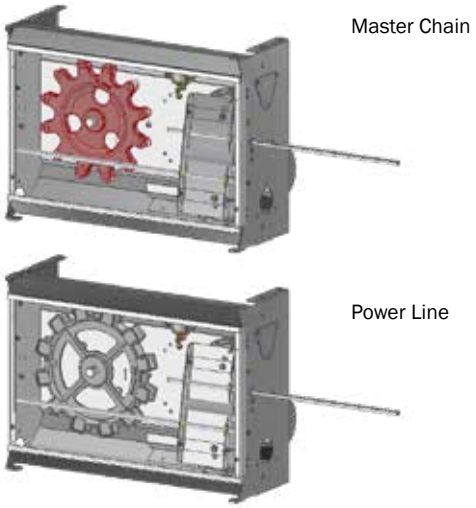
Loosen the bolts on the **upper** slide bar.



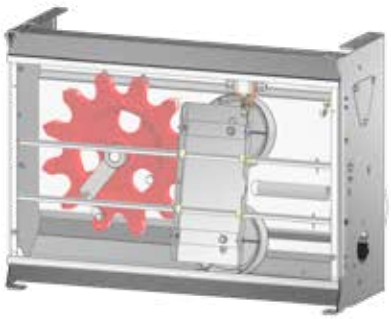
Remove the bolt marked in the illustration and slide the bracket to the side.



Slide the upper sliding bar to the side to make room for the drive wheel.



Install the drive wheel as described.



Slide the slide bar into place. Insert the locking splits and fasten the bolts in the slide again.

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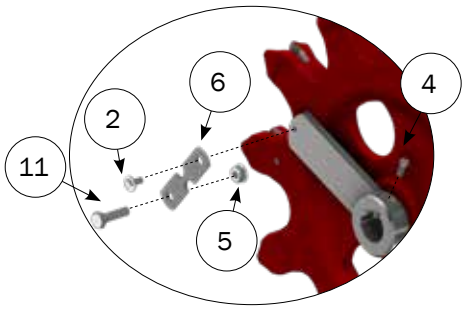
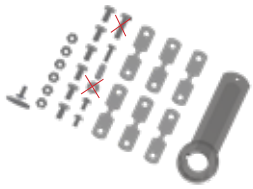
5.5. Installation of drive wheel

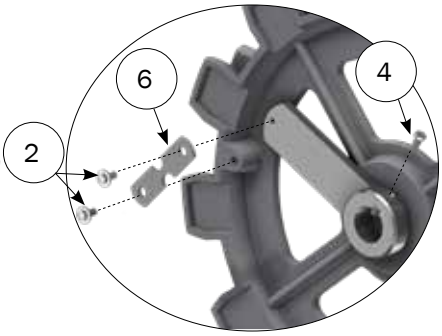
Master Chain drive wheel 12 teeth

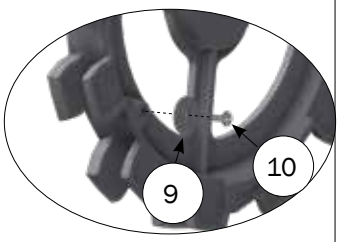


Pos 9 and pos 10 are not used
Must use one of item 2
For part list see next page.

Powerline



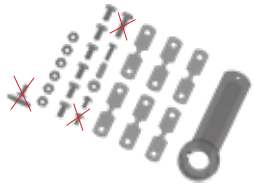


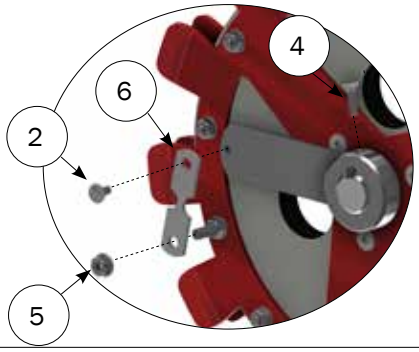


Pos 5 and pos 11 are not used

For part list see next page.

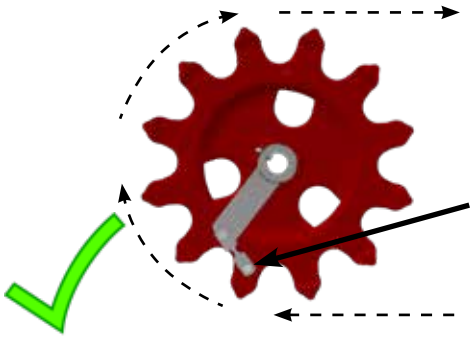
Master Chain drive wheel 13 teeth

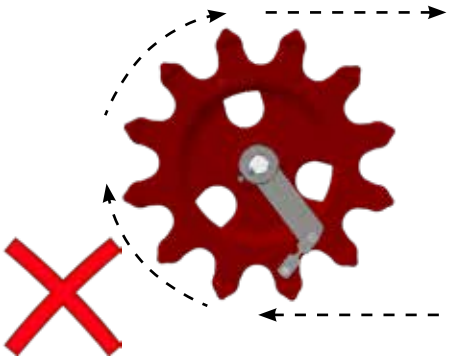


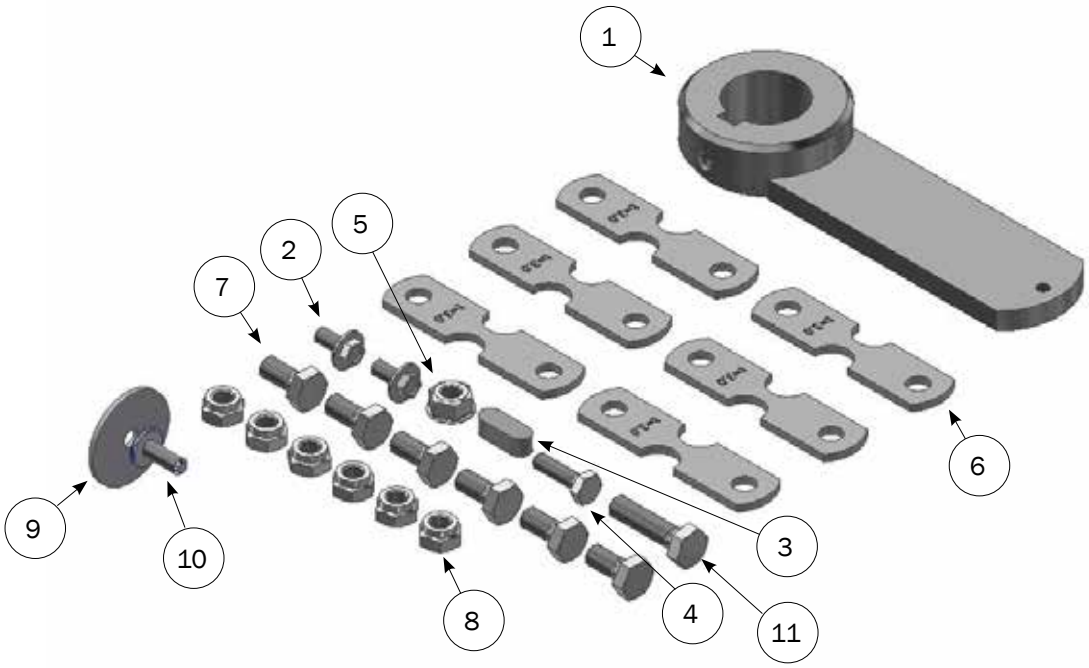


Pos 9, 10, 11 are not used
Must use one of item 2
For part list see next page.

Bolt on the drive wheel can be installed when the electrical installation is complete and the rotation of the drive wheel is correct.







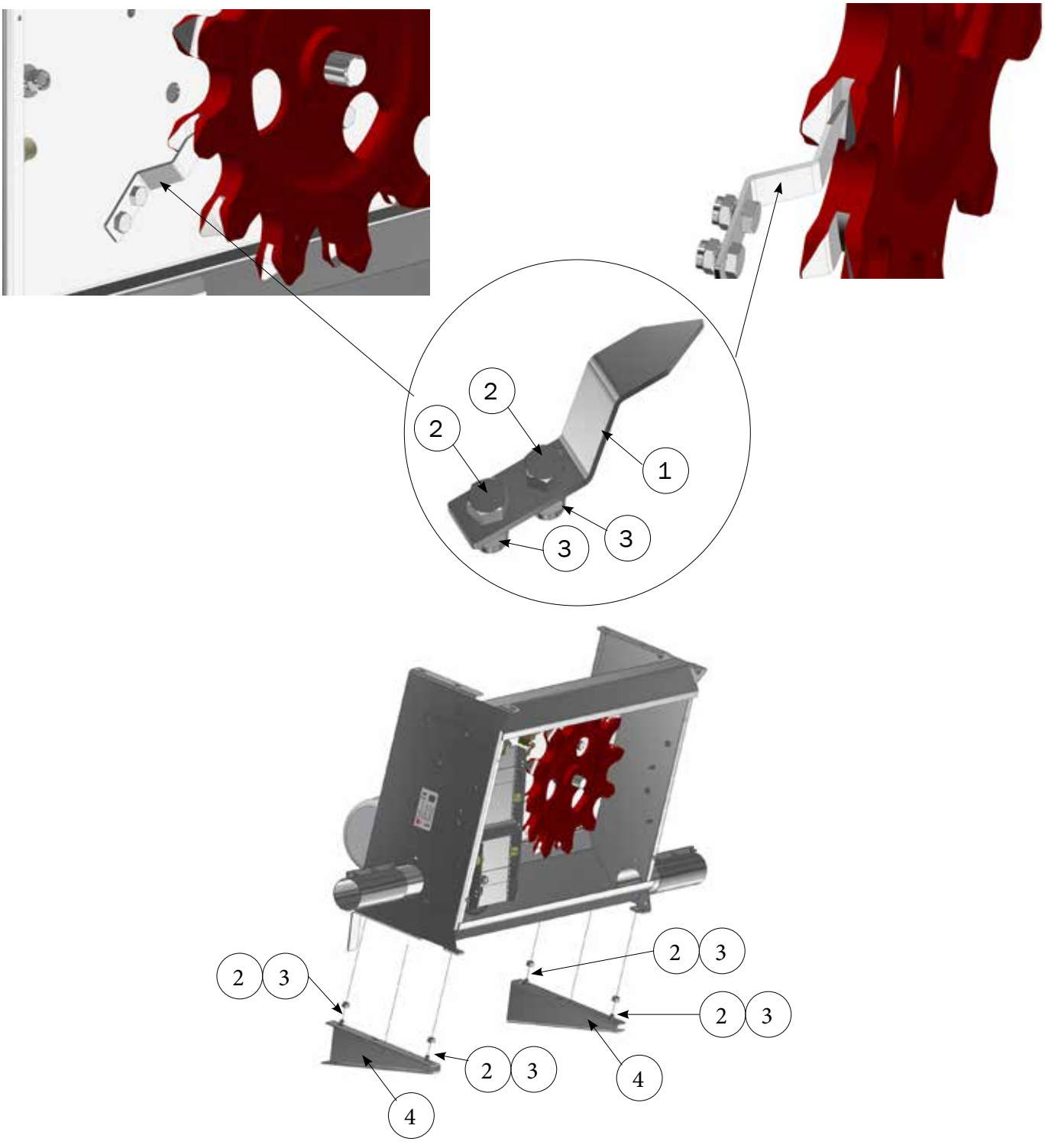
Note:

- Pos 9 and 10 is only used with Powerline wheel to measure axle rotation.
- Pos 6 along with pos 2 is used for Powerline attachment.
- Pos 6 along with pos 5 og 11 is used for Master Chain attachment.
- Pos 6 together with pos 5 for Master Chain drive wheel 13-tooth attachment.

ASSEMBLY KIT			
	Item no.	**Description**	**Pcs.**
	0211-845	ACCESSORIES FOR 0211-805 AND 0211-807	
1	0211-190	DRIVER TYPE 60	1
2	30306012	SET SCREW WITH COLLAR M6X12 A2	2
3	0211-311	PARALLEL KEY A8X7X22 DIN 6885	1
4	30306020	SETSCREW M6X20 A2 DIN 933	1
5	68552	COLLAR HEAD NUTM8 A2 DIN 6923	1
6	0113-199	BREAKING PART 3MM	6
7	30308016	SETSCREW M8X16 A2 DIN 933	6
8	33908001	LOCK NUT M8 A2 DIN 985 WAXED	6
9	35600088	WASHER Ø6,5X35X1,25 MM BZP	1
10	67175	SET SCREW M6X16 A2	1
11	30308030	SET SCREW M8X30 A2 DIN 933	1

5.6. Additional parts to 0170-107, Multistraw Maxi drive unit

ADDITIONAL PARTS TO MULTISTRAW DRIVE UNIT			
	Item no.	Description	Pcs.
1	0211-847	SCRAPER FOR MAXI DRIVE UNIT WITH STRAW	1
2	30310016	SET SCREW M10x16 A2 DIN 933	6
3	33900029	LOCK NO M10 A2 DIN 933	6
4	0211-848	WEDGE FOR DRIVE UNIT	2



5.7. Electrical connections

All connected cables must comply with applicable regulations. Pay attention to requirements concerning sheathed cables in agricultural buildings. ACO Funki cannot be held liable for any damage caused by incorrectly used cables or incorrect installation.

- Electrical connection may only be carried out by an autorized electrican.
- The machine must be potential equalized in accordance with applicable national regulations.
- Before connecting the system to the mains, check that the mains voltage and frequency match the connected equipment.
- The motor must be protected in accordance with the applicable regulations for the connection of electric drives. Check that the motor protection setting corresponds to the information on the motor nameplate.
- Before connecting the motor, check the phase sequence for the direction of rotation of the motor.

5.7.1 Supply (power supply)

Connect the drive unit electric motor to the mains. See also section 3.7.3. (voltage, power, power consumption, frequency)

5.7.2. Main and emergency power circuit breaker

The machine must always be equipped with a mains circuit breaker in accordance with current regulations.

5.7.3. Connection to other equipment

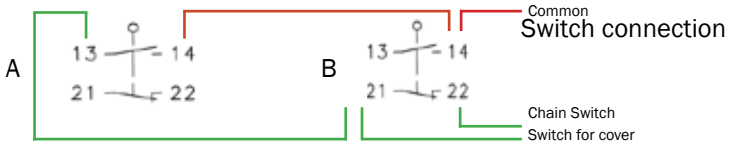
Control unit: see instruction for unit concerned.
Reception unit / flexauger / strawunit, see instruction for unit concerned

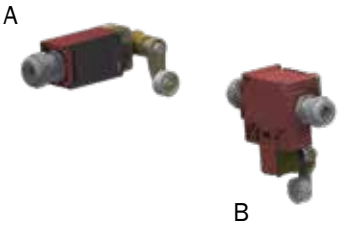
5.7.4. Pay attention when installation

- The machine will typically be installed together with other machines and equipment, all of which must be installed according to the installation drawing of the site.
- Be aware of the motor's rotational direction when connecting the electricity.
- Also refer to the installation instructions for the electric motor.

5.8 Installation of electricity for safety switches

Find related guide en section 11.5.





5.9. Installation of electricity to the motor

Find related guide en section 11.5.

400 VAC

230 VAC

6. Safety and residual risks

6.1. Built-in safety measures

For personal safety during operation, the machine is equipped with a switch for cover. When you open the cover, the protective function is activated. All moving parts stop in less than 3 seconds and stops before the cover can be removed.

The controller must protect the motor against overcurrent consumption.

Safety devices must not be disabled, altered or weakened in relation to their intended effect. Under no circumstances should the switch for cover be removed if the machine is not in a safe state or the supply isolator is open and locked.

6.1.1. Switch for cover

Switch for cover. Stops the entire machine.

6.1.2. Safety features

Safety feature	Explanation
Emergency stop / safety circuit breaker	The machine is equipped with a lockable emergency stop via the controller. Overrun time of less than 3 seconds. PLr - c*
Cover	The machine stops when the cover is opened in the event of a supply interruption. PLr - d*

* According to the following standard: EN 13849-1.

Supply separators:

The machine's parts are equipped with lockable supply separators via control.

Testing intervals:

If the following test limits mentioned below are exceeded, the safety functions can no longer be considered to protect operators at the machine from the machine's sources of danger.

The safety functions must be functionally tested every 12 months.

Testing the safety functions:
Press start - the machine starts
Press stop - the machine stops
Activating the door switch - the machine stops

In case of failure or error, the machine must be taken out of operation until the error is corrected, after which the function is retested.

6.2. Safety measures to be taken by ACO FUNKI certified personal

6.2.1. Clothing and personal protective equipment

Use:

Personal protective equipment provided at the workplace and in accordance with ACO Funki guidelines must always be used.

ACO Funki guidelines:

Loose clothing, jewellery, scarves etc. must not be used while operating the machine. It is recommended to wear overalls when working with the machine.

Do not wear loose clothing, jewellery, scarves, etc. when servicing the machine. It is recommended to wear overalls when servicing the machine.

Maintenance and repair:

In connection with maintenance and servicing, safety shoes, gloves, long clothing and similar must be used in accordance with internal and applicable national rules for the individual task being performed.

Suitable personal protective equipment must be used during repair and maintenance work.

The area around the machine must be kept clean of spills and other objects.

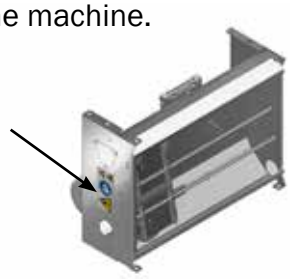
When replacing components, follow the ACO FUNKIS instructions for the component in question.

- Personal protective equipment in the form of work gloves, safety shoes and head protection when transporting parts.
- Approved lifting equipment in the form of crane and hoist for handling parts over 15 kg.

6.2.2. Warning signs

	**READ THE INSTALLATION INSTRUCTION!** Read this instruction carefully before installation, use and maintenance.
	**DANGEROUS ELECTRICAL VOLTAGE!** The machine is connected to electrical voltage. Danger of electric shock.
	**MOVING MACHINERY!** Risk of crushing due to moving parts in the machine.

Warning signs are located on the side of the machine.



6.2.3. Residual risks

There are the following risks in connection with maintenance and repair:

- Risk of electric shock.
- Risk of electric shock (residual dangerous voltage).

Before starting repair, maintenance and service work, it must be ensured that:

- Accumulated energy is relieved.
- The machine's suplly separators are oppened, disconnected and locked.

6.2.4. Work procedures

Before starting the work, it must be ensured that:

- The area is clean and free from objects the operator could trip over.
- There is sufficient lighting to operate the machine safely.
- There are no people around dangerous parts of the machine.

Start-up and operation takes place under the following conditions:

- Emergency stop panel has been installed and tested.
- Operation is initiated and supervised by trained personnel.
- Operation can be stopped on the emergency stop panel.
- Front cover is securely closed.

7. Operation

The machine is controlled by external control.

7.1. Start/stop

Before starting, the operator must ensure that there is full visibility around the part of the machine he plans to operate (No people around dangerous parts of the machine).

Ensure that the controls are clearly and unambiguously marked to prevent incorrect operation. The controls are positioned so that they can be operated safely.

7.2. Emergency stop and safety switch

During a period of operation, dangerous situations may happen where it is necessary to stop the machine or parts of it immediately. If such a situation happens, the machine is stopped by activating the emergency stop.

The following situations may require an emergency stop:

- Potentiel dangerous situation.
- Sudden unknown conditions arise for example abnormal sounds (rumbling, knocking) or movements from parts of the machine.
- Faults in safety equipment that cannot be replaced/repaired during normal operation.
- In case of braks and leaks that cannot be immediatley by elimmediated as well as faults or leaks.

The emergency stop and safety switch stops the entire system.

7.2.1. Restart after safety stop

Before resetting the emergency stop, an inspection of the machine part must be carried out to find and eliminate the cause of the activation.

Before the machine can be restarted, the emergency stop must be reset (turning the button or pulled out) and the control panel must be reset, after which it can be started again.

Before starting up again, make sure that there are no persons, objects, tools etc. at/on or around the dangerous parts of the system.

See applicable operating instructions and workplace instructions.

7.3. Feeding / removing items

Between the machine and the feed or straw delivery point, a reception unit, flex auger or straw unit is installed to dose the right amount of material into the feed chain so that it is not overfilled.

If the system is overfilled or blocks
1. Disconnect the power to the system and lock it according to the instruction in section 9.4.
2. Remove the material that has overfilled the system.
3. Check the system as described in section 9.2.
4. Start the system as described in section 7.

7.4. Return to operation after blocking

In case of emergency stop:

Before resetting, an inspection of the machine part must be carried out to find and remove the cause of the activation.

Before the machine can be restarted, the safety function must be released and the control panel must be reset.

Before starting up again, it must be ensured that there are no people, subjects, tools etc. at/on or around dangerous parts of the machine.

In case of overload:

In case of overload, the overload protection of the loaded motor or the frequency converter will switch the motor off.

Before the machine can be restarted, an inspection must be carried out, in order to find and repair the cause of the activation, and then the motor's motor protection or the frequency converter must be reset and possibly on the control panel.

Before starting up again, it must be ensured that there are no people, subjects, tools etc. at/on or around dangerous parts of the machine.

Before resetting, the operator must inspect the entire machine part for faults and defects.

8. Training

8.1. Operators

Operators must be qualified either by professional training or by training that equates them with this and the person in question must have knowledge of the machine's function and safety conditions.

Operators must have read and understood user manuals, guides, workplace instructions, etc. and must have knowledge of the machine's function and safety conditions by reviewing the user manual, operator's manuals and workplace instructions and by training assistants and be able to make general adjustments, etc., and be trained/instructed in the machine's use, handling, etc.

Operators must be able to identify and avoid potential hazards. Operators must know the location of safe access routes and emergency stops.

Before starting up or servicing the machine, the operating personnel must be informed of all installed safety functions.

Operator's work	1 Instructed operators	2 Specilly instructed operators	3 Instructed operators with special training (mechanical/ electric)
Troubleshooting and repair	-	x	x
Use (daily operation/ operation)	x	x	x
Maintenance	-	x	x
Disposal/recycling	-	x	x

8.1.1. Operator qualifications

1 - Instructed operators

- Instructed operator means a daily user who is not normally skilled in the area.
- It is expected that instructed operators are instructed in safety and operation of the equipment and can solve tasks within their work area.
- Or during normal operation, for example starting, stopping, loading, checking and removing items.
- It must be ensured that those involved are properly instructed in the user manual and trained so that the work can be carried out safely.
- No or minimal English skills.
- From time to time needs support

2 - Specially instructed operators

- Specially trained operators mean that one is skilled in the field.
- It is expected that specially instructed operators are instructed in safety and operation of the equipment and can solve tasks that require independent actions, e.g. set-up and setting, can restart the equipment after errors and stops or during conversion and maintenance tasks, and masters complex tasks within the competence, also regarding maintenance, transport and tool change etc.
- It must be ensured that the person concerned is properly instructed in the user manual and trained so that the work can be carried out safely.
- From time to time needs support.

3 - Instructed operators with special training (mechanical/electric)

- Instructed operators with special training means technicians, engineers or specialists in the field.
- It is expected that the instructed operator with special training is a designer, programmer or supervisor and has the highest level of competence.
- It must be ensured that those involved are properly instructed in the user manual or during commissioning and trained in such a way that the work can be carried out in a safe manner.

8.2. Maintenance staff

ALL MAINTENANCE MUST ONLY BE CARRIED OUT BY ACO FUNKI CERTIFIED PERSONNEL.

Personal protective equipment must be used during repair and maintenance tasks. See section 6.2.1 for further information.

The maintenance staff must have knowledge of the machine's function and safety conditions as well as knowledge of the location of safe access routes and emergency stops.

The maintenance staff must have read and understood instuctions for use, guides, workplace instructions, etc.

Before starting work, repairers and maintenance personnel must be instructed in safety conditions around the machine.

New maintenance staff must be trained by an experienced colleague.

Incorrect operation or maintenance can be dangerous and in the worst case cause death!!

8.3. Young people

Young people may only operate the machine if they are over 16 years of age, under the supervision of a qualified person and if it is necessary, for example, as part of their education.

9 Maintenance, troubleshooting and repair

Before starting repairs, maintenance etc. power and energy sources must be disconnected. See section 9.4.
Live voltage, pressurised and rotating (or otherwise moving) machine parts can cause serious or fatal injuries if used incorrectly or if the safety instructions are not followed.
Maintenance and repair work, especially on electrical parts, may only be carried out by specialists and trained personnel.

9.1. Maintenance

9.1.1 Transport chain

After a period of operation, the Master chain and PowerLine chain will stretch and the distance between the drive wheel and tensioning wheels in the drive station will increase. At the latest when the tensioner wheels goes against the micro switch, the chain must be shortened. This is done by removing some links from the chain and reassembling with a connecting link. When assembling the chain, the tensioner wheels should be pulled as close to the drive wheel as possible - see section 5.3.2. *Assembly and mounting of transport chain*.

If the chain breaks, the spring will pull the tensioner wheels towards the stop sensor, which will stop the system. In order to reassemble the chain, it is necessary to pre-tension the tensioner wheel - see section 5.3.2 Assembly and installation of conveyor chain.

Be careful with the spring on the tensioning wheel. Do not disassemble the chain if it is tensioned. The chain must be slackened before disassembly - follow the section on 'Assembly and installation of transport chain' in reverse order.

9.1.2 Gear

The gear should be checked for leaks, especially around stuffing boxes. In case of leakage, replace defective parts of the gear unit with new ones or replace the entire gear unit. Keep the gear unit's cooling fins clean.

9.1.3 El-motor

The engine's cooling fins and fan cover must be kept clean.

9.1.4 Bushings

Bushings in the tension wheel and tension wheel bracket should be checked for wear and replaced if necessary.

9.2 Troubleshooting instructions

9.2.1 Broken breaking part

If the system is overloaded or blocked, the breaking part will breake.

9.2.2 If the breaking part often breaks

- Blockage in the system in the form of foreign objects
- Incorrect breaking parts are used. Use ACO Funki's breaking parts with a thickness of 3 mm. Only use one breaking part at a time.
- The feed has too high volumetric weight
- Defective bearings in corner wheels

9.2.3 Motor protection switches off

- Too large system
- Check motor protection setting
- Feed has too high volumetric weight
- Corner whels mounted with wrong direction of rotation
- Defective bearings in corner wheels

9.3. Service and maintenance

Checklist table can be found under section 11.7.

SERVICE- AND MAINTENANCE INTERVALS OF DRIVE UNIT	
Interval	**Task**
Weekly	• Listen for noice or abnormale sounds
Minimum every 3 months	• Visual control • Check chain tensioning* • Drive wheel • Tension wheels • Bushings
Yearly	• Test of safety functions (see section 6.1.2.)

* Check the chain in the first 10 days.

Visual control:

- Check the condition of all stickers on the machine (warning signs, CE-label)

SERVICE- AND MAINTENANCE INTERVALS OF GEARMOTOR	
Interval	**Task**
Minimum every 6 month	• Visuel control • Control of noise or anbormale sounds • Control of oil level

Visual control:

- Check the gear unit for leaks and external damage.
- If there are leaks, damage or cracks, the gear must be repaired

Control of noise:

- Noise or vibrations in the gear are signs of damage to the gear unit. Disengage the gear and carry out a general inspection.

9.4. Disconnecting power and energy sources

Before repair, manitenance, etc. is started, energy sources must be disconnected (unlocked) and possibly vented or depressurised

- Electrical supply separators must be opened (voltage disconnected) and locked.

Interruption of energy supply

Before repair, maintenance, etc. is started, energy sources must be disconnected (unlocked).

1. Bring the machine to a standstill.

2. Identify all shut-off devices and switches relevant to the work.

a.Relevant shut-off devices are the shut-off valves and electric ones circuit breakers that cut off the supplies to the machine, as well as adjacent machines if these can create a risk of danger.

3. Disconnect the electrical supply to all electrical equipment via the supply disconnector.

4. Protect the machine from accidental restart using a locking device.

Withholding of the energy supply

If it is not possible to maintain an overview of the entire machine and its plug during, for example, maintenance, the machine must be protected against accidental restart by means of a locking device.

There is a legal and authorized lockable switch on the control board that handles the drive unit.
(Must be placed at least 0.6 m and at most 1.9 m - 1.7 m is preferred above the service level)

<u>This prevents accidental starting and contact with live parts.</u>

- Suitable personal protective equipment must always be used during repair and maintenance work.
- In cases where additional light is needed, the maintenance staff must bring this.
- Approved lifting equipment must be used when lifting and handling heavy parts/components.
- After repair, maintenance, etc. before start-up, the operator must inspect the entire machine for faults and defects.

Electronic work:

- Before starting work on electrical control board, a de-energized condition must be checked with a reliable instrument. It must be checked with 2 different measuring methods.
- For inspections where it is necessary to work under voltage, the staff must have a valid electrical safety course (formerly L-AUS) certificate/course certificate.
- Work on live parts and work near live parts must always be carried out by qualified persons.
- When working under voltage, there must always be another person so close to the workplace that the corresponding person can intervene quickly if an accident happens.
- This person, who does not need to be an expert or instructed in the electrical safety course regulations, must know before starting the work how best possible to intervene to stop the accident.
- Pay attention to residual dangerous voltage at frequency converters for some time after the interruption. (see operating instructions for the frequency converter).
- After repair, maintenance, etc. the compensating connection must be refitted correctly.
- Potential equalization must be checked at least once a year in connection with inspection. (see instruction for the frequence converter).

For maintenance and service, see section 9.3, which contains information and guidance on maintenance tasks, execution, points and intervals for:

-	Cleaning	-	Inspection
-	Lubrication	-	Testing
-	Check	-	Replacement

9.5. Corrective maintenance

If there are any noises, unusual vibrations or the like from the machine, the fault must be located and rectified. If this is not possible, an authorized fitter must be called.

In general, it must be advised that maintenance and repairs are only carried out by trained and instructed personnel with the necessary professional background.

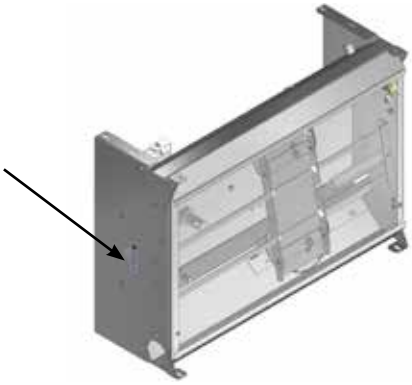
When replacing parts and components, only parts that are identical to those fitted by the manufacturer may be used.

All written information and warnings must be formulated in danish.

If information and warnings are unreadable or unclear, these must be replaced immediately with new ones.

9.6. Service adresses

Contact distributor for support and service.
Contact information and model number can be found on the CE-label on the side of the machine.



10. Termination of use

10.1. Disposal

Disposal must be carried out in accordance with applicable national regulations.

For disposal, you should contact your lacal product dealer to dismantle and dispose of the most enviromentally appropriate way.

The power supply to the motor must not be connected during disassembly

- If space conditions permits, disassemble the drive unit on the floor and in the opposite order as described in the assembly instruction.
- The drive unit is largely made og recyclable materials.
- A prerequisite for recycling is that the materials are sorted correctly according to applicable environmental requirements.
- Machine parts covered in oil should be wiped with a cloth. Suck possibly expired oil with paper towel; dispose of the paper properly. Never pour oil or grease into the drainage system or onto the ground.
- All metal parts should be handed over to the metal recycling industry.

The produkt is subject to Directive 2012/19/EU on Waste Electrical and electronic equipment (WEEE).

Do not dispose of this product with unsorted household waste.
Please use the local WEEE collection points for disposal of this product, and ensure that all relevant regulations are complied with.

11. Appendix

11.1. EC-declaration of conformity

EC-declaration of conformity

2006/42/EC annexe II A

Hereby declares that machine type:

-	Drive Unit, Maxi Drive Unit	0211-810, 0211-815, 0211-820, 0211-825, 0211-830, 0211-850, 0170-107.

Is manufactured in accordance with the following EC directives:

-	2006/42/EU	The machinery Directive
-	EN/ISO 12100:2011	Safety of machinery - General principles for design - Risk assessment and risk reduction.

Person responsible for compiling the relevant technical documents:

Lene Bryde
Kirkevænget 5
7400 Herning
Denmark
Tlf.: +45 97 11 96 00

This declaration certifies compliance with the guidelines indicated. Changes to the design that might have effects on the technical data or proper use are indicated in the manual, The declaration of conformity is invalidated if changes are made that seriously change the equipment.

28.10.2024

Lene Bryde
Managing Director

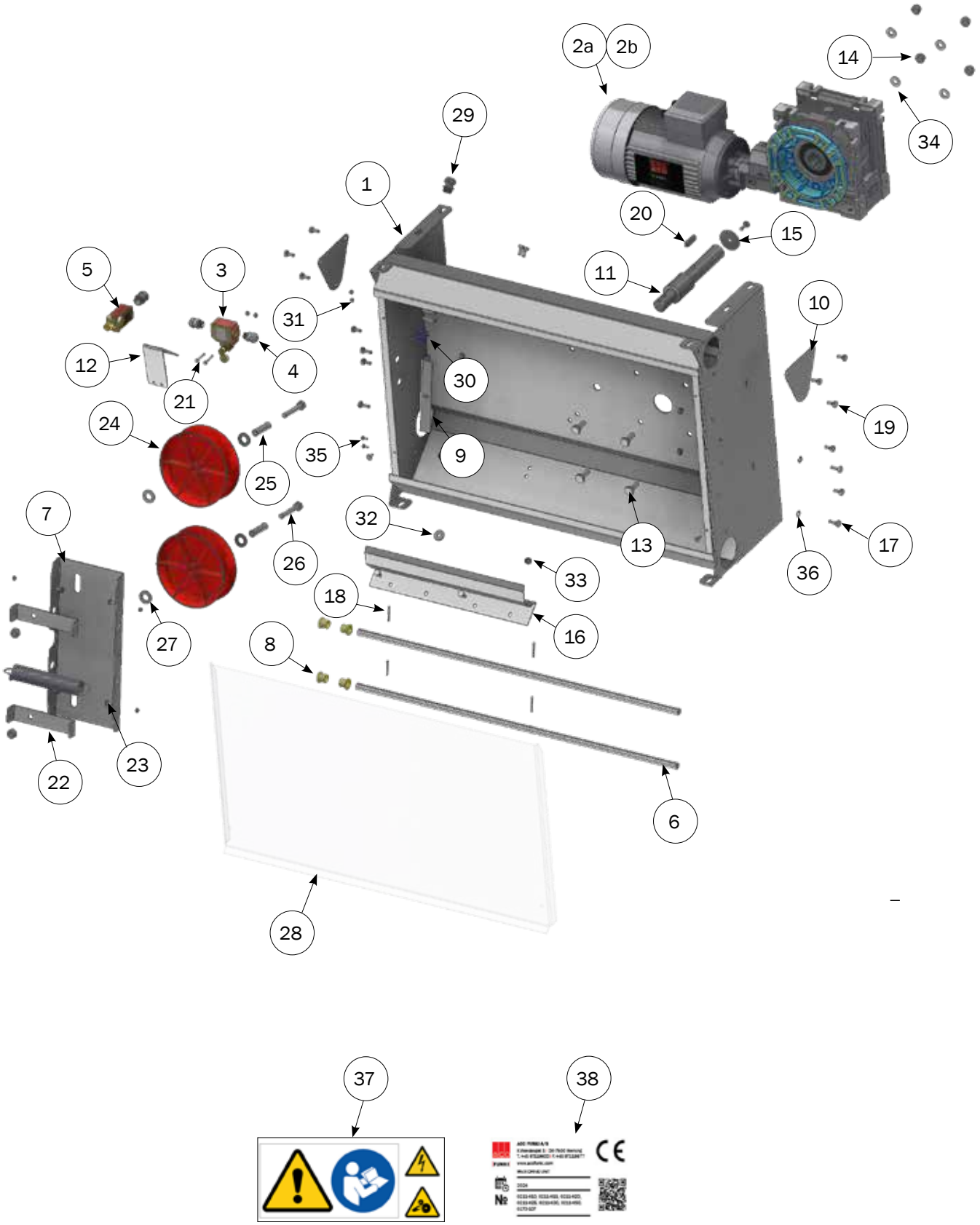
11.2. Other diagrams

See section 11.5. El-motor and switch.

11.3. Drawings, mechanical construction.

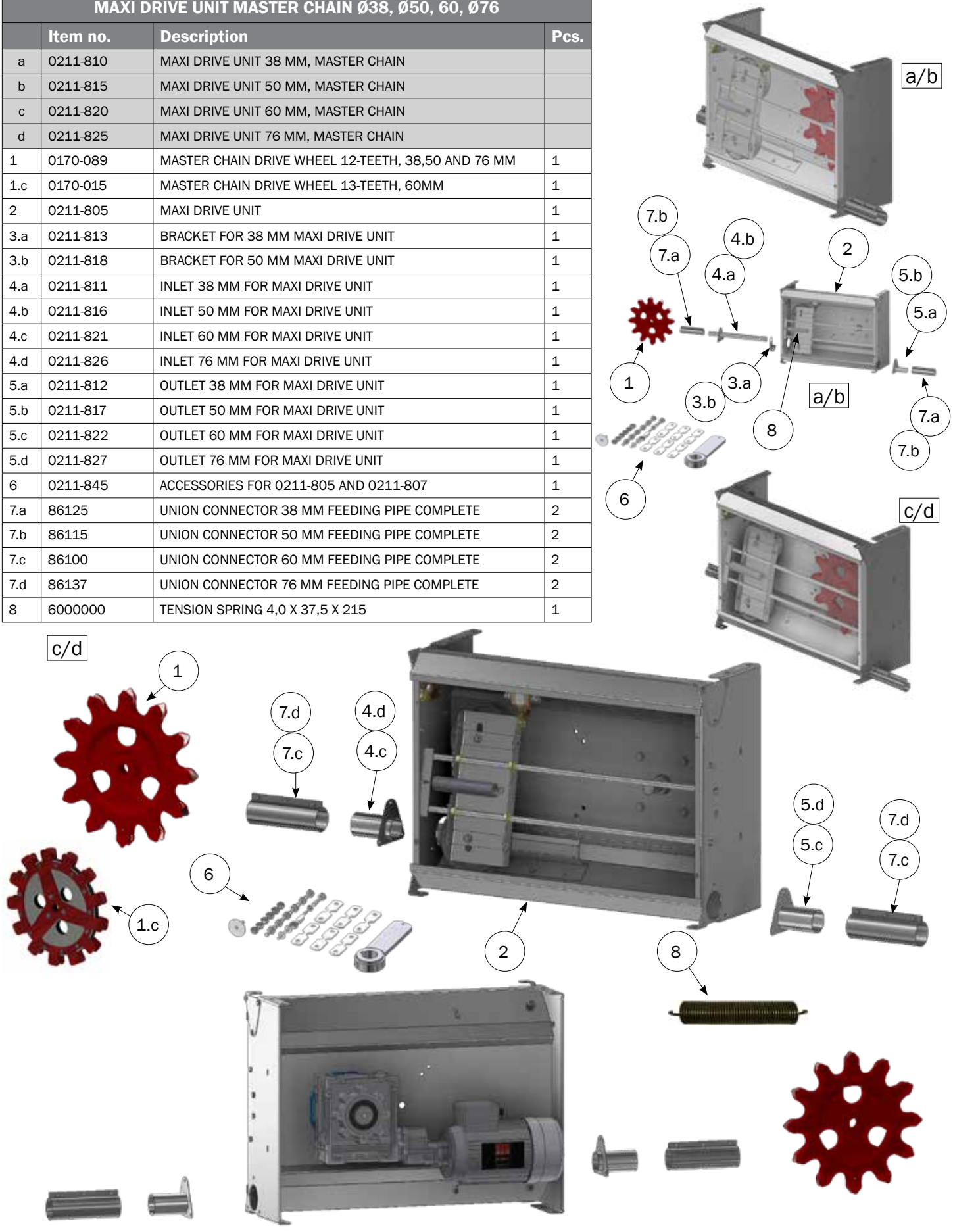
References to section 3

11.4. Product overview and parts list

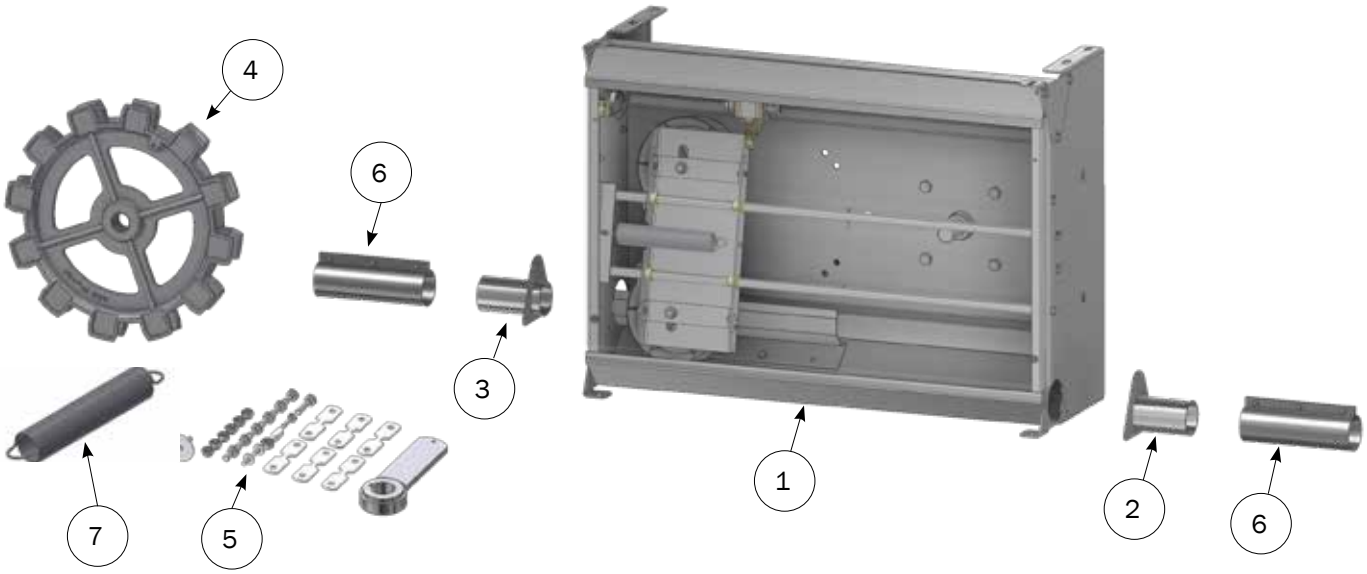


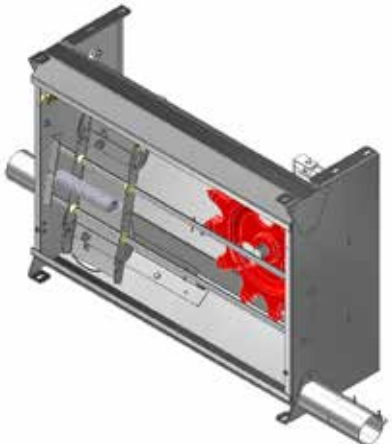
PARTS LIST			
	Item no.	**Description**	**Pcs.**
a	0211-805	MAXI DRIVE UNIT	
b	0211-807	MAXI DRIVE UNIT STRAW AND TRANSPORT	
1	0211-806	HOUSE FOR MAXI DRIVE UNIT	1
2a	45101443	GEARMOTOR 2,2 KW IE3 OUTPUT 18 RPM	1
2b	45101445	GEARMOTOR 2,2 KW IE3 OUTPUT 29 RPM	1
3	70000008	MICROSWITCH 2 ENTRY	1
4	76100128	CABLE GLAND M16 Ø5-9,50	2
5	70000007	MICROSWITCH	1
6	0211-837	SLIDE BAR Ø16X829 MM FOR TENSION WHEEL	2
7	0211-836	GUIDING BRACKET FOR TENSION WHEELS	1
8	0115-102	BEARING Ø20/16,4X18,5	4
9	0211-838	BRACKET FOR TENSION SPRING	1
10	0211-843	FLANGE COVER FOR OUTLET/INTAKE	2
11	0211-444	SHAFT FOR DRIVE UNIT TMC	1
12	0211-840	ANGLED BRACKET FOR SWITCH	1
13	30312030	SETSCREW M12X30 A2 DIN 933	4
14	33912000	LOCK NUT M12 A2 DIN 985 WAXED	6
15	35600098	NUT WASHER Ø8X50X1,5 A2	1
16	0211-841	GUTTER FOR INLET	1
17	30308020	SET SCREW M8X20 A2 DIN 933	5
18	35104025	SPLIT PINS 4X25 MM BZP DIN 94	4
19	30308016	SET SCREW M8X16 A2 DIN 933	14
20	49900044	PARALLEL KEY A10X8X40	1
21	67109	HEXAGON SOCKET SCREW M5X30 A2 DIN 912	4
22	0211-846	SLEIGH CHAIN ADJUSTMENT	2
23	30306012	SET SCREW WITH COLLAR M6X12 A2	6
24	0211-833	TENSION WHEEL 150MM FOR MAXI DRIVE UNIT, RED	2
25	0211-839	BUSH FOR TENSION WHEEL 0211-835	2
26	32312070	MACHINE BOLT M12X70 A2 DIN 931	2
27	35600041	FLAT WASHER Ø17X30X3 MM A2 DIN 125A	4
28	0211-842	TRANSPARENT COVER FOR MAXI DRIVE UNIT	1
29	76101515	CABLE GLAND M20 Ø3-9 IP68	2
30	0413115126	NUTRIC POLYAMIDE M20	1
31	33905000	LOCK NUT M5 A2 DIN 985	10
32	35600058	FLAT WASHER Ø8,4X24X2 MM A2 DIN 9021	2
33	33908001	LOCK NUT M8 A2 DIN 985 WAXED	14
34	35600080	FLAT WASHER Ø13X24X2,5 MM A2 DIN 125A	4
35	30305010	SET SCREW M5X10 A2 DIN 933	2
36	35600044	STAR WASHER Ø8,4X15X0,8 MM A2 DIN 6798A	3
37	0211-808	SAFETY LABEL 19,5 X 9 CM FOR MAXI DRIVE UNIT	1
38	0211-809	CE-LABEL FOR MAXI DRIVE UNIT	1

MAXI DRIVE UNIT MASTER CHAIN Ø38, Ø50, 60, Ø76			
	Item no.	**Description**	**Pcs.**
a	0211-810	MAXI DRIVE UNIT 38 MM, MASTER CHAIN	
b	0211-815	MAXI DRIVE UNIT 50 MM, MASTER CHAIN	
c	0211-820	MAXI DRIVE UNIT 60 MM, MASTER CHAIN	
d	0211-825	MAXI DRIVE UNIT 76 MM, MASTER CHAIN	
1	0170-089	MASTER CHAIN DRIVE WHEEL 12-TEETH, 38,50 AND 76 MM	1
1.c	0170-015	MASTER CHAIN DRIVE WHEEL 13-TEETH, 60MM	1
2	0211-805	MAXI DRIVE UNIT	1
3.a	0211-813	BRACKET FOR 38 MM MAXI DRIVE UNIT	1
3.b	0211-818	BRACKET FOR 50 MM MAXI DRIVE UNIT	1
4.a	0211-811	INLET 38 MM FOR MAXI DRIVE UNIT	1
4.b	0211-816	INLET 50 MM FOR MAXI DRIVE UNIT	1
4.c	0211-821	INLET 60 MM FOR MAXI DRIVE UNIT	1
4.d	0211-826	INLET 76 MM FOR MAXI DRIVE UNIT	1
5.a	0211-812	OUTLET 38 MM FOR MAXI DRIVE UNIT	1
5.b	0211-817	OUTLET 50 MM FOR MAXI DRIVE UNIT	1
5.c	0211-822	OUTLET 60 MM FOR MAXI DRIVE UNIT	1
5.d	0211-827	OUTLET 76 MM FOR MAXI DRIVE UNIT	1
6	0211-845	ACCESSORIES FOR 0211-805 AND 0211-807	1
7.a	86125	UNION CONNECTOR 38 MM FEEDING PIPE COMPLETE	2
7.b	86115	UNION CONNECTOR 50 MM FEEDING PIPE COMPLETE	2
7.c	86100	UNION CONNECTOR 60 MM FEEDING PIPE COMPLETE	2
7.d	86137	UNION CONNECTOR 76 MM FEEDING PIPE COMPLETE	2
8	6000000	TENSION SPRING 4,0 X 37,5 X 215	1

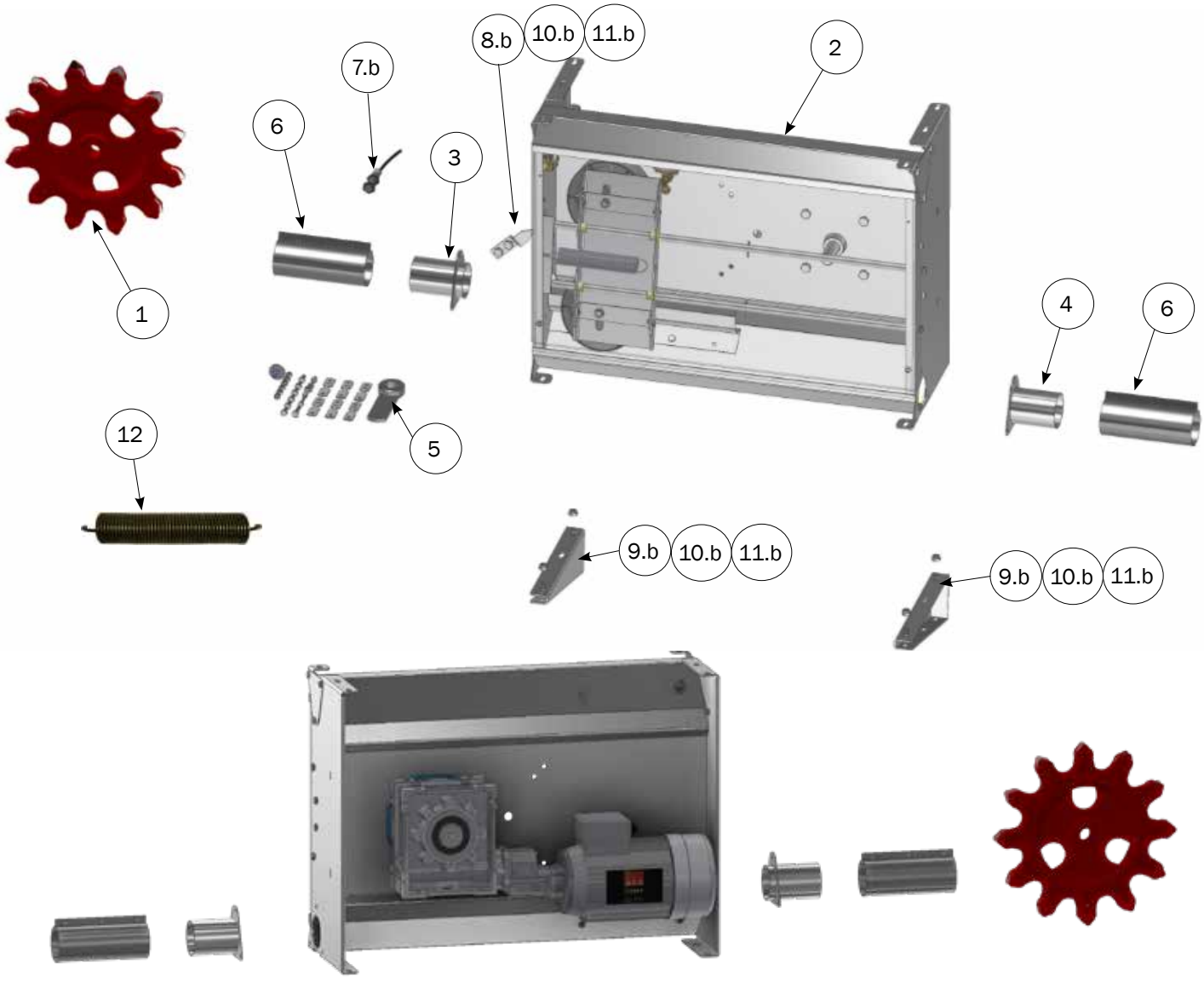


MAXI DRIVE UNIT POWERLINE Ø60			
	Item no.	Description	Pcs.
	0211-830	MAXI DRIVE UNIT 60 MM POWERLINE	
1	0211-805	MAXI DRIVE UNIT	1
2.	0211-822	OUTLET 60 MM FOR MAXI DRIVE UNIT	1
3	0211-821	INLET 60 MM FOR MAXI DRIVE UNIT	1
4	0119-168	POWERLINE DRIVE WHEEL 12-TEETH FOR 60 MM	1
5	0211-845	ACCESSORIES FOR 0211-805 AND0211-807	1
6	86100	UNION CONNECTOR 60 MM FEEDING PIPE COMPLETE	2
7	60000010	TENSION SPRING 3,25 X 36 X 212	1





MAXI DRIVE UNIT STRAW AND TRANSPORT			
	Item no.	Description	Pcs.
a	0211-850	MAXI DRIVE UNIT 76 MM, FOR FEED TRANSPORT, 76 MM	
b	0170-107	MULTISTRAW MAXI DRIVE UNIT 76 MM	
1	0170-089	MASTER CHAIN DRIVE WHEEL 12-TEETH, 38, 50, 60 AND 76 MM	1
2	0211-807	MAXI DRIVE UNIT STRAW AND TRANSPORT	1
3	0211-826	INLET 76 MM FOR MAXI DRIVE UNIT	1
4	0211-827	OUTLET 76 MM FOR MAXI DRIVE UNIT	1
5	0211-845	ACCESSORIES FOR 0211-805 AND 0211-807	1
6	86137	UNION CONNECTOR 76 MM FEEDING PIPE COMPLETE	2
7.b	71900039	INDUCTIVE SENSOR FOR SHAFT SPEED MONITOR, MULTICOTROLLER	1
8.b	0211-847	SCRAPPER FOR MAXI DRIVE UNIT WITH STRAW	1
9.b	0211-848	WEDGE FOR DRIVE UNIT	2
10.b	30310016	SET SCREW M10X16 A2 DIN 933	6
11.b	33900029	LOCK NUT M10 A2 DIN 985 WAXED	6
12	6000000	TENSION SPRING 3,25 X 36 X 212	1



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11.5. Diagram for motor

8. Tabelle / 8. Tables

Tab 1: Coppie di serraggio / Tab 1: Tightening torques

DIAMETRO FILETTO/ THREAD DIAMETER	VITE CON DADO/ SCREW WITH NUT	VITE SU ALLUMINIO/OTTONE/ SCREW ON ALUMINIUM/BRASS
M4	2,5	2
M5	5	4
M6	8,5	7
M7	14	11,5
M8	20,5	16,5
M10	40	32

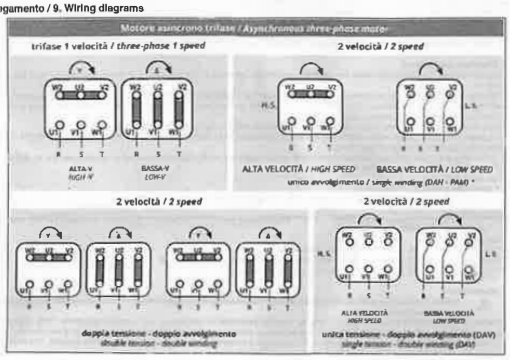
Tab 2: Coppie di serraggio perni morsettiera / Tab 2: Tightening torques for terminal strip pins

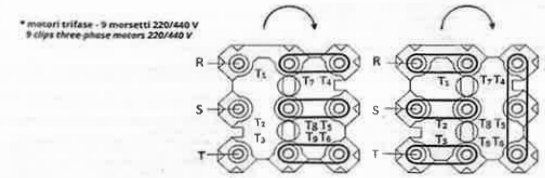
MORSETTIERA/ TERMINAL STRIP	GRANDEZZA/SIZE MOTORE /MOTOR [mm]	DIMENSIONE/ DIMENSION MORSETTIERA/ TERMINAL STRIP [mm]	DIMENSIONE/ DIMENSION PERNO/PIN [mm]	COPPIA DI SERRAGGIO/ TIGHTENING TORQUE PERNI/PINS [Nm]
6 PERNI	50	40 x 25	M4 x 12	2
	56/63/71	44 x 27	M4 x 12	2
	80/90	50 x 32	M4 x 15	2
	100/112	56 x 36	M5 x 15	3
	132	70 x 45	M6 x 20	4
	160/180/200	95 x 60	M8 x 24	5
8PERNI	56/63/71/80/90/100 112/132/160/180/200	50 x 43	M4 x 12	2

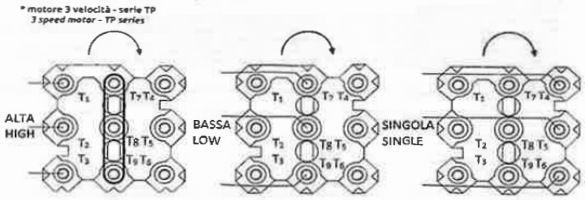
Tab 3: Pressacavi / Tab 3: Cable glands

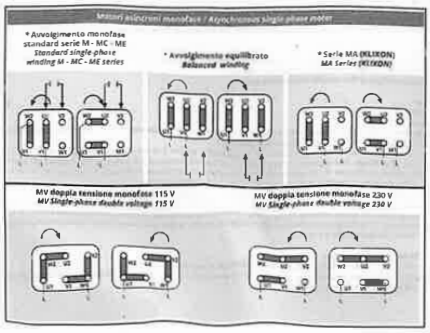
GRANDEZZA/SIZE MOTORE/MOTOR [mm]	GRANDEZZA/SIZE PRESSA CAVO/CABLE GLAND [mm]	FORO/HOLE PASSAGGIO CAVO/CABLE ROUTE [mm]
56/63/71	M16 x 1,5	5 – 10
80/90/100/112	M20 x 1,5	7 – 12
112/132/160/180/200	M32 x 1.5	13 – 18

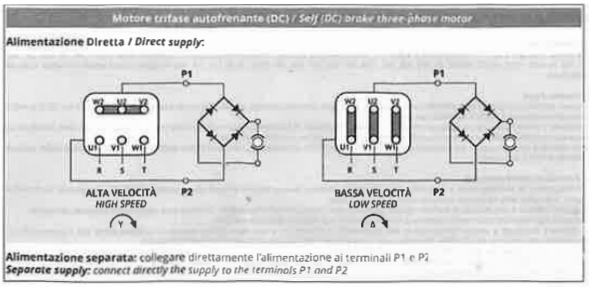
9. Schemi di collegamento / 9. Wiring diagrams

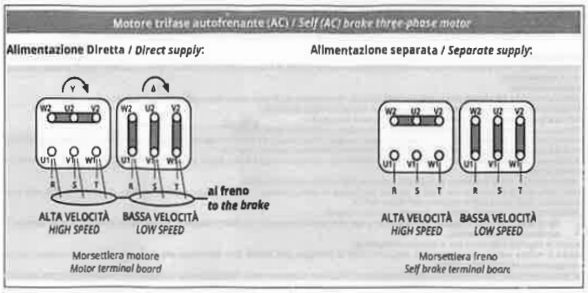


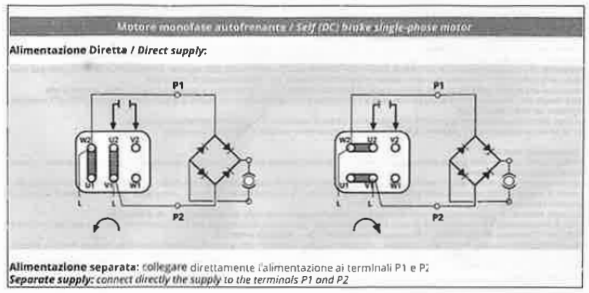


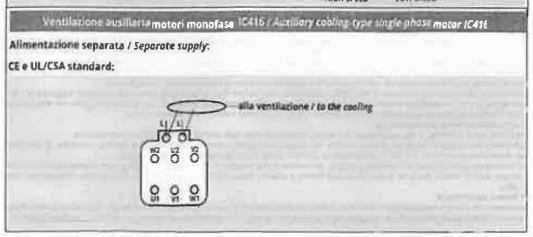












Rev. 2 03/19
D-MAK-20_MANUALE USO E MANUTENZIONE IT_EN

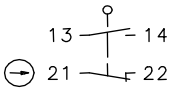
Technical Data

BERNSTEIN

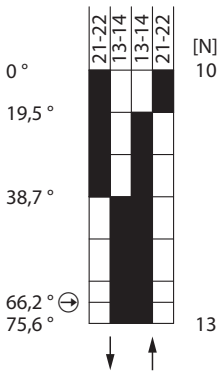
Plastic bodied limit switch
Series IN65

Description **IN65-SU1Z AHK**	Article number **6083000235**

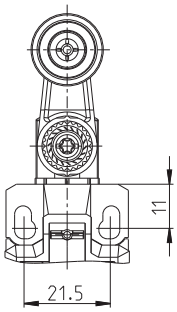
Operating symbol

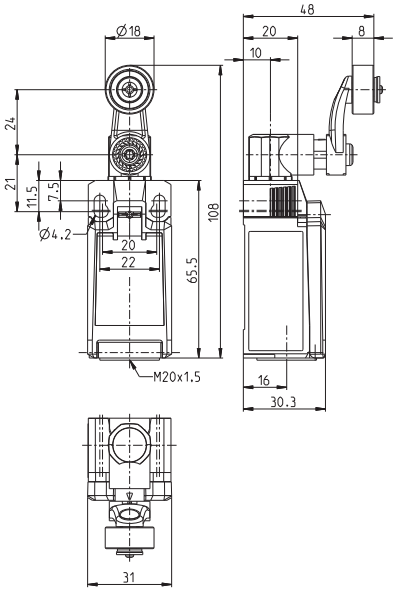


Operating diagram



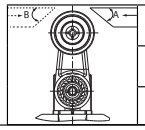
Fixed positioning with e.g. fixing screw M5 according to the standard DIN EN ISO 4762.





ON OFF

Tolerance:
Operating point ± 3,5 °;
Direct opening action + 3,5 °
Operating force ± 10 %



m/s	0,1	0,5	1	2	5
A	45°	45°	45°	40°	30°
B	45°	45°	45°	40°	30°

Electrical Data		
Rated insulation voltage	U_i	400 V
Rated impulse withstand voltage	U_{imp}	4 kV
Rated operational voltage	U_e	240 V AC / 24 V DC
Rated supply frequency AC		50 / 60 Hz
Overvoltage category		II acc. EN 60947-1 annex H table H1
Conv. thermal current	I_{the}	5 A
Minimum current		1 mA
Reliability		acc. EN 60947-5-4 @ 24 V DC, 10 mA, 1 mA, U_{kd} 2,4 V DC
Utilization category		AC 15, U_e/I_e 240 V / 1,5 A DC 13, U_e/I_e 24 V / 1,5 A (B300 table A.1)
Direct opening action	⊖	acc. IEC/EN 60947-5-1, annex K; direct opening force: 23 N
Short-circuit protective device		Fuse 4 A gG
Rated conditional short-circuit current		400 A
Max. contact resistance		25 mOhm (unused)
Electrical life		on request

BERNSTEIN AG . Hans-Bernstein-Straße 1 . 32457 Porta Westfalica . www.bernstein.eu

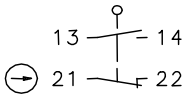
Technical Data

BERNSTEIN

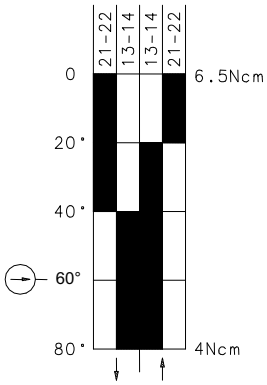
Plastic bodied limit switch
Series BI2

Description **BI2-SU1Z AH**	Article number **6085185111**

Operating symbol

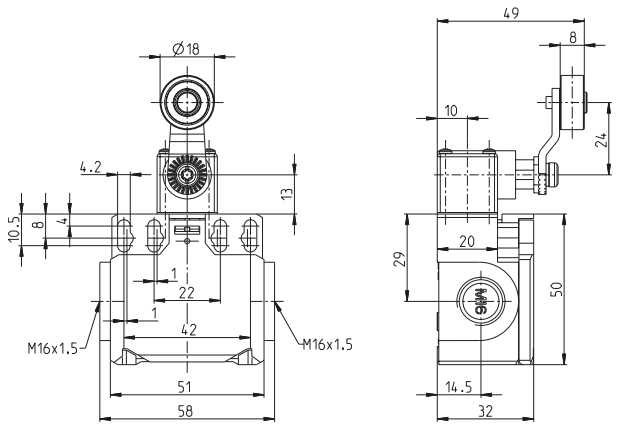


Operating diagram

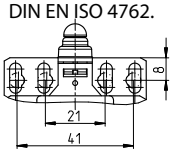


On Off

Tolerance:
Operating Point ± 3,5 °;
Operating force ± 10 %



Fixed positioning with
e.g. fixing screw M5
according to the standard
DIN EN ISO 4762.



Electrical Data		
Rated insulation voltage	U_i	400 V AC
Conv. thermal current	I_{the}	10 A
Rated operational voltage	U_e	240 V AC
Utilization category		AC-15 U_e / I_e 240 V / 3 A DC-13 U_e / I_e 24 V / 3 A
Direct opening action	⊖	acc. to IEC/EN 60947-5-1, annex K
Short-circuit protective device		Fuse 2 A gG
Protection class		II, totally insulated

11.6. Other compliance or Incorporation Statements

Gearmotor 45101443 and 4510445

TRANSTECNO®
the modular gearmotor

DICHIARAZIONE DI CONFORMITA' UE (doc N.011_24/1NR)
EU DECLARATION OF CONFORMITY (doc N.011_24/1NR)

Modello prodotto(Serie)/*Model (Series)*:
N, NT, NM, NAT, NHE2, NHE3, NIN

Nome e indirizzo del fabbricante/ *Manufacturer's name and address*:
Transtecno S.r.l.
Via Caduti di Sabbiuno 11 D/E – 40011 Anzola Emilia, Bologna, Italy

La presente dichiarazione di conformità è rilasciata sotto la responsabilità del fabbricante.
This declaration of conformity is issued under the sole responsibility of the manufacturer.

Oggetto della dichiarazione/ *Object of the declaration*:
Motori ad induzione elettrica asincroni trifase **serie N e NT** / *asynchronous three-phase electric induction motors* ***series N and NT***
Motori ad induzione elettrica asincroni monofase **serie NM** / *asynchronous single-phase electric induction motors* ***series NM***
Motori ad induzione elettrica asincroni trifase autofrenanti **serie NAT** / *asynchronous three-phase electric induction self brake motors* ***series NAT***
Motori ad induzione elettrica asincroni trifase ad alta efficienza **serie NHE2, NHE3** / *asynchronous three-phase electric induction motors high efficiency* ***NHE2*** *and* ***NHE3 series***
Motori ad induzione elettrica asincroni trifase ad uso inverter **serie NIN** / *asynchronous three-phase electric induction motors inverter duty* ***NIN series***
Motori ad induzione elettrica asincroni trifase con **kit servoventilazione**/ *asynchronous three-phase electric induction motors with* ***servo fan kit***

L'oggetto della dichiarazione è conforme alla pertinente normativa di armonizzazione dell'Unione/ *The product complies with the relevant Union harmonization legislation:*

DIRETTIVA BASSA TENSIONE/*LOW VOLTAGE DIRECTIVE* (LVD) 2014/35/UE:
DIRETTIVA COMPATIBILITA'ELETTROMAGNETICA/*ELECTRIC MAGNETIC COMPLIANCE (EMC)* 2014/30/UE
DIRETTIVA RIFIUTI (RAEE)/ *WASTE DIRECTIVE (WEEE)* 2012/19/UE

I motori elencati sono costituiti da componenti elettrici ed elettronici conformi alla **DIRETTIVA RoHS 2011/65/UE** e alla **direttiva delegata 2015/863/UE** (restrizione sull'uso di sostanze pericolose nelle

TRANSTECNO SRL
Direzione e coordinamento di Interpump Group
Via Caduti di Sabbiuno 11 D/E, 40011 Anzola dell'Emilia (BO) - Italy - Tel +39 051 6425811 - Fax +39 051 734943
sales@transtecno.com - www.transtecno.com - C.F. 02394560375 - P.IVA 00575261201 - Cap.Soc. Euro 100.000,00 I.V. - R.E.A 278977/BO - R.I. BO N. 02394560375

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apparecchiature elettriche ed elettroniche).
These motors consist of electrical and electronic components complying with the ***RoHS DIRECTIVE 2011/65/EU*** *and* ***delegated directive 2015/863/EU*** *(Restriction of Hazardous Substances in electrical and electronic equipment).*

I motori targati IE2 e IE3 sono conformi al regolamento 2019/1781 incluso nei requisiti della **DIRETTIVA ECO-DESIGN 2009/125/CE** (progettazione eco-compatibile). La classe di rendimento è definita nella Norma EN 60034-30-1 :2014
The IE2 and IE3 motors are in accordance with Regulation 2019/1781 included in the requirements of ***ECO-DESIGN DIRECTIVE 2009/125*** */ EC (Eco-Design). The performance class is defined in the EN 60034-30-1: 2014*

Riferimento alle pertinenti norme armonizzate utilizzate/ ***References to the relevant harmonized standards:***
EN 60034-1:2017, EN 60034-5:2001+A1:2007, EN 60034-6:1997, EN 60034-7:1997+A1:2001, EN 60034-9:2006+A1:2007, EN 60335-1:2020, EN 61000-6-2:2016, EN 61000-6-4:2018

Informazioni supplementari/ ***additional information:***
Il motore non deve funzionare finché la macchina ove viene assemblato venga dichiarata conforme alla Direttiva Macchine 2006/42/CE.
Prima e durante l'avviamento del motore è obbligatorio rispettare la norma EN 60204-1 :2016/AMD1:2021
The motor must not be operated until the machine, where it is assembled, is declared in conformity with the Machinery Directive 2006/42 / EC.
Before and during motor start-up is mandatory to comply with EN 60204-1: 2016/AMD1:2021

Anzola Emilia, 08/05/2024

Firmato a nome e per conto di/ ***Signed for and on behalf of*** **:** Transtecno Srl
Nome e Cognome/Name and Surname: Ing. Paolo Fracassini
Funzione aziendale/Company's role: Direttore di stabilimento /*Plant Manager*

Timbro e Firma:
TRANSTECNO SRL
Via Caduti di Sabbiuno n. 11 D/E
40011 ANZOLA EMILIA (BO)
Tel 051 6425811 - Fax 051 734943
C.F. 02394560375 - P.IVA 00575261201
COD. UNIVOCO: M5UXCR1

11.7. Maintenance checklist

DATE	TASK	INITIALS

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ACO FUNKI A/S · Kirkevænget 5 · DK-7400 Herning · Tel. +45 97 11 96 00 · www.acofunki.com

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