

Operating, Maintenance And Service Manual

Spare Parts List

IS-033 Round Cut Heading Machine



Preface

This manual is dedicated to the personnel responsible for the operation, maintenance and service of a Baader IS-033 Heading Machine.

Carefully read the instructions and safety precautions given in this manual. Do not attempt to operate maintain or service this machine until you have thoroughly read and understood the information contained in this manual.

It is the responsibility of the owner to ensure training is given to all personnel involved on the operation of these machines.

Baader Ísland ehf. Will not assume any liability for damages due to the non-observance of this manual, inadequately trained personnel, improper handling of the machine nor its application in fields other than those specified in this manual.

In case of arbitrary modifications by removing or mounting parts or any modification of the machine without our written approval, our conformity declaration (EC directive) will become invalid.

Use only Baader genuine spare parts.

It is imperative to comply with the legal safety regulations for food processing machinery which are in force in your country.

This manual is the intellectual property of Baader Ísland ehf and may not be copied, reproduced nor made available to third parties without our prior written approval.

Warning To clearly show details of this machine, covers, guards, barriers or doors may have been removed or shown in an open position. All such safety components must be replaced prior to the machine being used. Failure to observe this instruction may result in serious personal injury or death.

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Pictograms used in this manual



Important Note



Caution In case of non compliance, damage of the machine and or property cannot be ruled out.



Particular attention required:–
Danger of personal injury.



Danger
Unprotected electrical systems.

SAFETY PRECAUTIONS

IMPORTANT FOR THE MACHINE OPERATORS!

Non-specified use, as well as improper operation of the machine can result in serious bodily injuries and severe material damages. It is essential that operators observe the following safety instructions.

- Read the operating instructions prior to starting up the machine.
- Unauthorised personnel must not operate maintain or service the machine.
- Wear close fitting work clothing, especially around arms.
- Do not wear any finger rings.
- Do not reach into running machine.
- Do not place loose articles on the machine.
- Do not run the machine unattended.
- In case of failure of the functional sequence, prior to cleaning, maintenance and lubrication, switch off the machine. Put the machine switch to **0** position and secure it.
- Only qualified personnel should maintain or service the machine, strictly observing these operating instructions.
- The safety devices installed by the manufacturer must not be bypassed, modified or removed!
- Spraying in electrical enclosures and controls gears **is prohibited**; explosion hazard.
- Never operate maintain or service this machine if affected by alcohol or other substances that may impair alertness or judgement.
- Use safety protective equipment.

SAFETY INSTRUCTION

Prior to starting up the machine:

Ensure all machine covers are fitted.

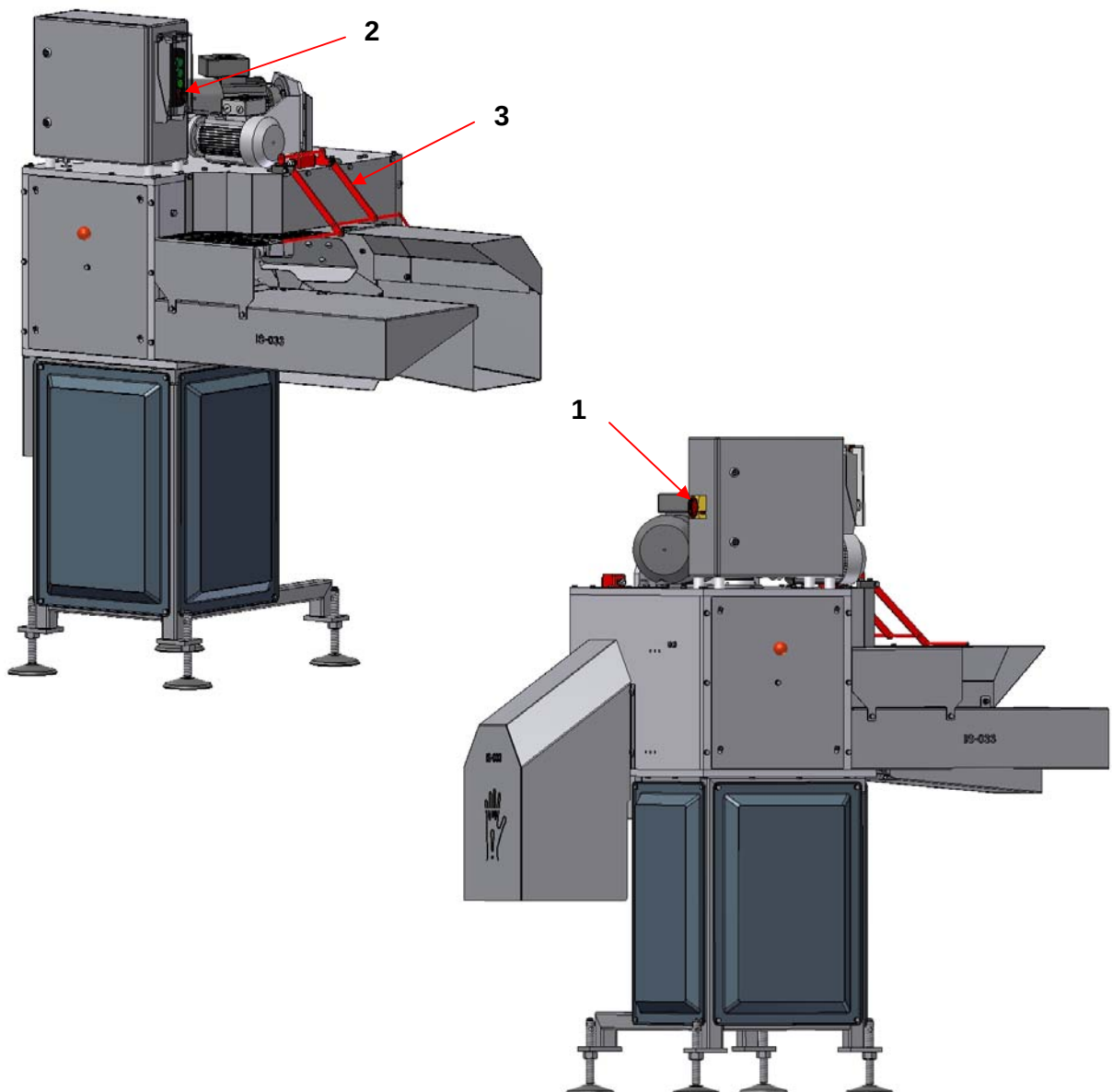
Verify the proper functioning of all safety devices.

During operation, the machine should stop ...

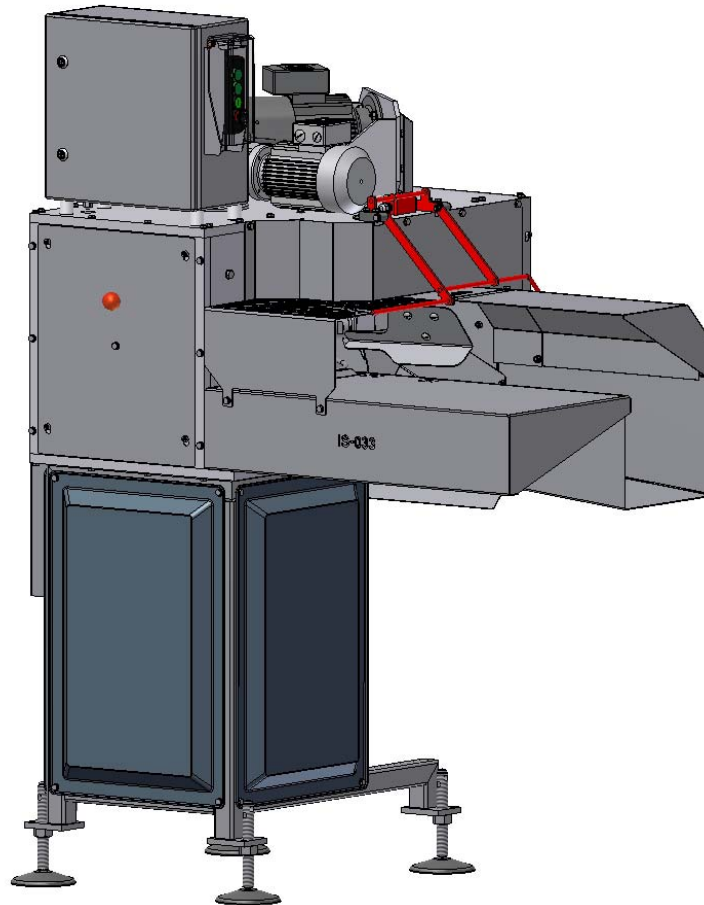
... when setting the main switch (1) of the heading machine to position 0.

... when pressing the 0-button (2) (red light).

... when actuating the safety lever (3) in front of the in feeding section.



General



The machine is designed to remove the head of whitefish with throat cut.

It is recommended to wash the fish prior to beheading.

Note:

Live fish and fish in the state of rigor mortis cannot be processed.

Technical Data:

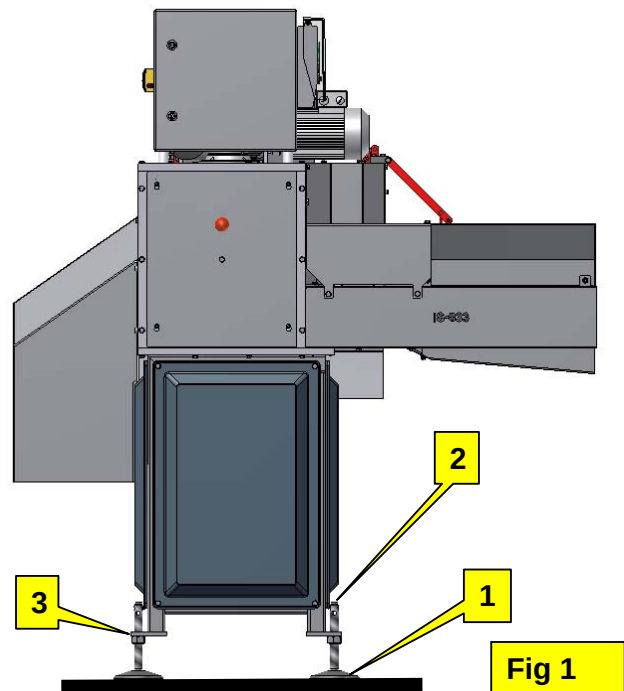
Fish Species		: Whitefish
Process Condition		: Throat cut
Size range		: 1 to 13 kg
Throughput rate		: Up to 30 fish per minute
Power Consumption		: 2.2 kW
Water supply	- Consumption	: approx 10 litre per minute
	- Pressure	: 1 to 5 bar (15 to 75 psi)
	- Connection	: 3/8" (hose ID 10mm)
Dimensions	- Length	: 1673mm (65.9")
	- Width	: 930mm (36.6")
	- Height	: 1777mm (70")
Weight		: 310kg
Operator requirements		: 1 person
Noise measurement (evaluation according to DIN 45635) Workplace level (LpAeq)		: 82dB(A) – Wear Ear Protection.

The machine is configured for the above mentioned size range and throughput rate. However the proportions and the quality of the fish (season, fishing ground, degree of freshness etc.) have an influence on the figures indicated, these may vary in practice. Live fish and fish in the state of rigor mortis cannot be processed.

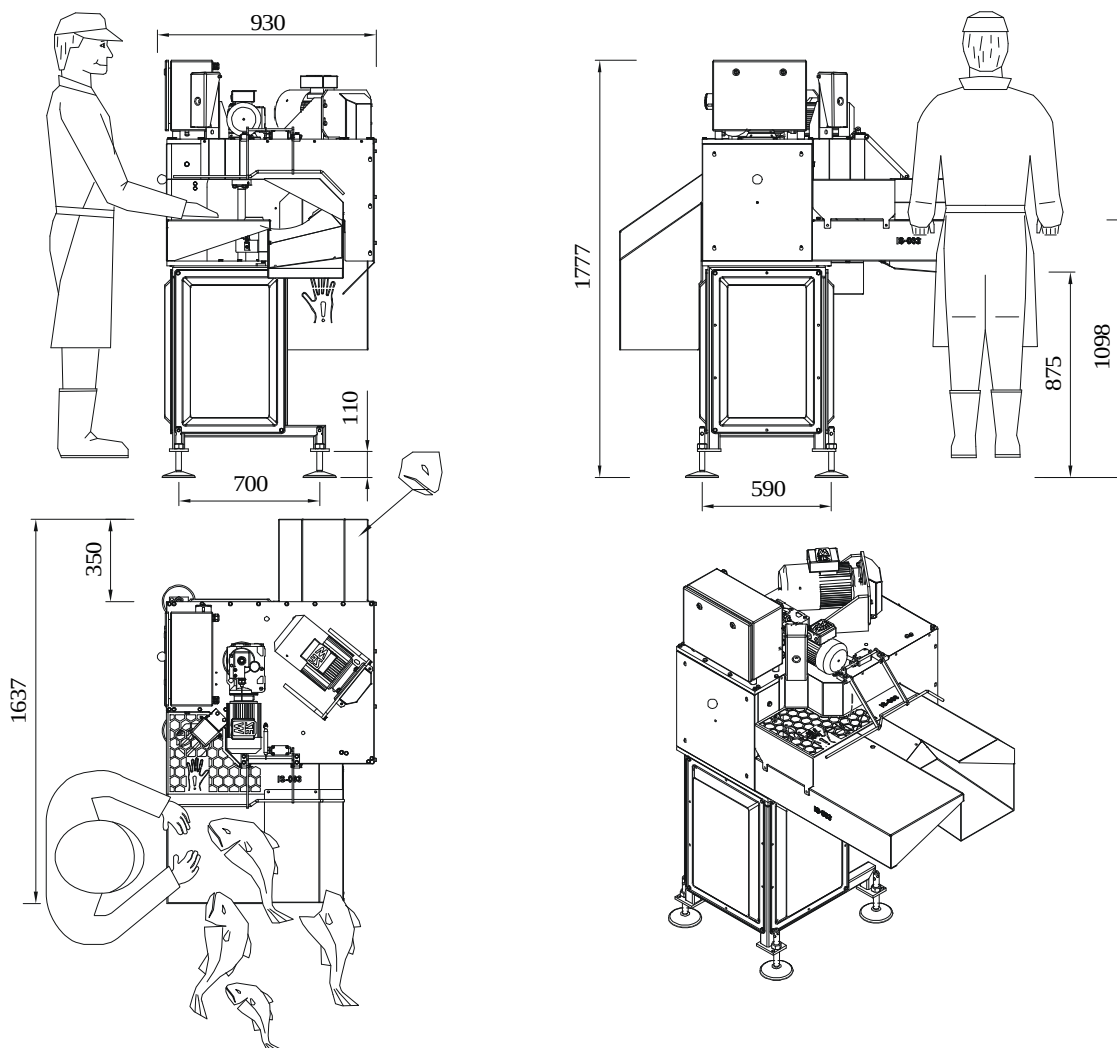
Machine Set-up

The machine shall be readily accessible from all sides for ease of operation and maintenance.

Place the machine on the base plates (fig.1 item 1), using the adjusting spindles (fig.1 item 2) level and adjust the working height of the machine. When complete lock the adjusting spindles using the lock nut (fig.1 item 3).



Dimensions



Machine Applications and Features:

The fish is placed belly to operator head first into the machine. The fish head is held and the entire fish is transported to the knife section where a high-yield head cut is performed. The main body of the fish, with collarbone attached, discharges to the front of the machine. The head is transported via a chute to the rear.

Thanks to its construction, the operator has a clear view of the working area. Adjustments e.g. for adaptations or service operation, including knife replacement are easily performed.

Power Connection

The machine is supplied with approximately 5m of Ölflex 191 5 G 2.5 cable terminating in a type 416P6 plug which is IP44 splash-proof and conforms to IEC 60 309-2.



To comply with the legal safety regulations, the machine has to be connected to the mains electrical supply in accordance with the circuit diagram taking into account the regulations of the local electrical authorities and the rules EN 60204 and VDE 0100.

Seal the cable bushes and screw so they are watertight.



An electrician must read and understand the electrical drawings supplied with the machine before connecting to the electrical supply. After connecting the machine the electrician should test correct function of the electrical equipment and ensure the machine is correctly grounded. It is important to verify the correct rotation of the electrical motors. Ensure that all exposed electrical equipment is properly covered. Seal the cable bushes and tighten to make watertight. The doors of the cabinet must be closed after the completion of the electrical connection.

Always lock the main electrical switch in the OFF position prior to performing any maintenance or service work.

Do Not bypass or wire around any safety equipment.

Removal of any cover or guard is prohibited.

Improper operation or insufficient maintenance can result in serious personal injury and severe material damages.

Employees who are responsible for safe working practices have to ensure that :-

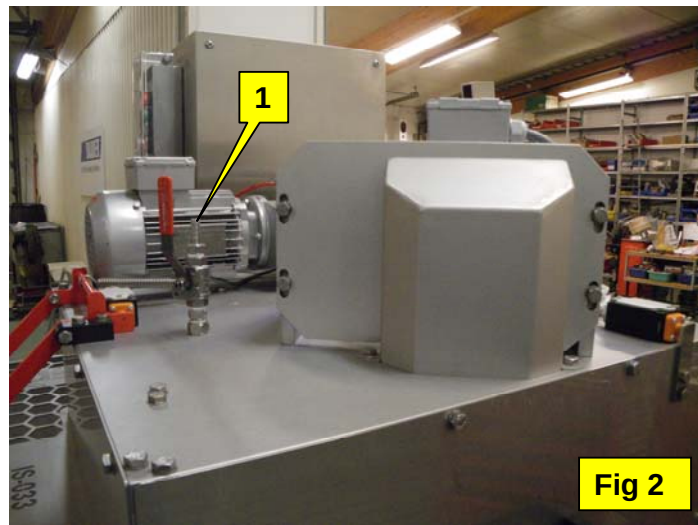
- any maintenance or service work is only completed by qualified personnel.
- operating instructions and information required for procedures completed by operators to be available at all times. Operators must strictly observe the contents of this information

Water Connection

The water connection (fig.2 item1) is configured for 3/8" hose (ID 10mm).

The hose should be led from the top down to the machine and secured to the hose tail by means of a hose clip.

Water pressure should be a between 1 to 5 bar (15 to 75 psi)





Warning

Ensure the machine is isolated from the electrical supply before attempting to rotate the machine by hand. Failure to observe this instruction may result in serious personal injury or death.

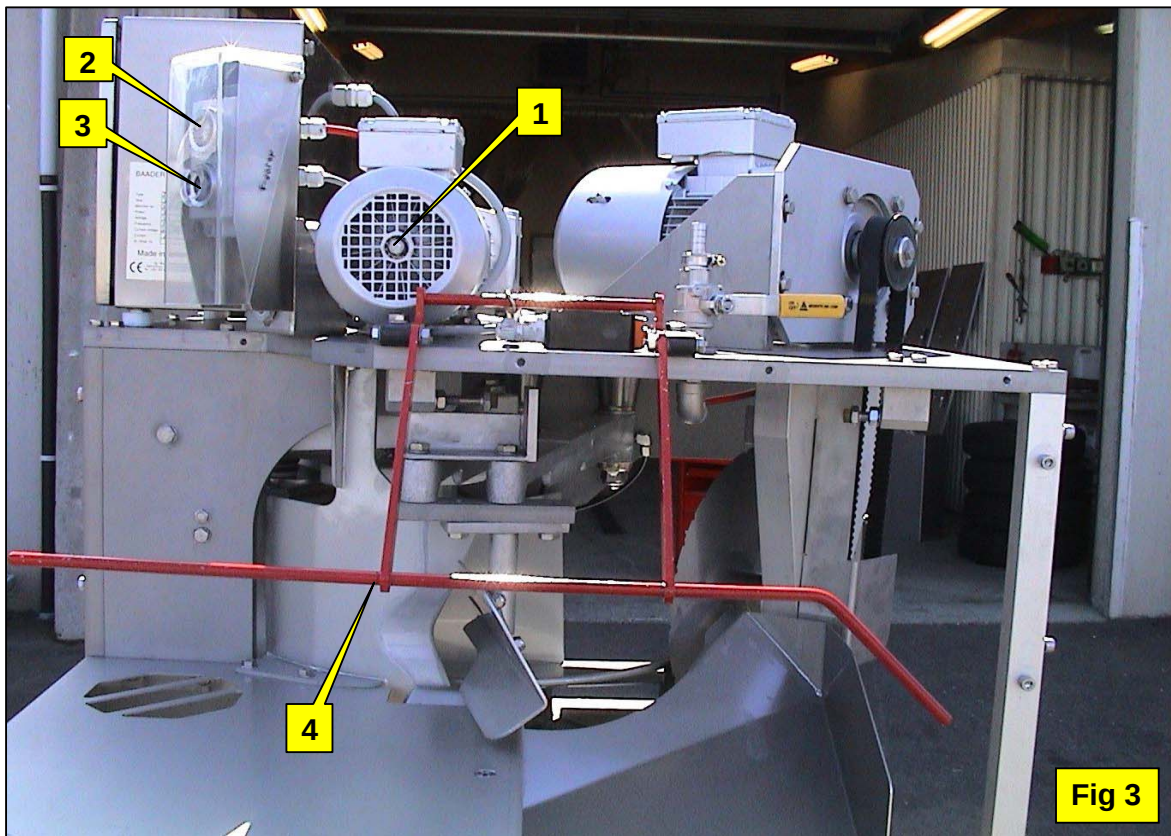


Fig 3

Use a suitable tool to manually rotate the machine (fig.3 item 1)

Start-reset button (fig.3 item 2).

Note:

Pressing the start-reset button for more than 1 second when released the machine will run for 1 complete cycle.

Stop button (fig.3 item 3)

Safety lever Emergency Stop (fig.3 item 4)

Initial Start-up Procedure

Prior to starting the machine, remove the preservative from all areas in contact with the product.

Wash the machine from bottom to top using a low pressure wash (max 30 bar) with drinking water heated to 60°C.

After cleaning, run the machine briefly; grease to remove any cleaning fluid that may have penetrated the bearings.

Cleaning

Clean the complete machine at regular intervals (8 operating hours).
When using low-pressure cleaning devices, do not direct the jet into bearings.

Rest periods

Set the main switch unto position **0**.
Remove product remainders and wash the machine from all sides with a powerful water jet.

Pre cleaning

Start and clean the machine observing the appropriate safety distance from the moving machine parts:

- with low pressure, max 30 bar.
- with 60°C drinking water.
- from bottom to top.



Keep the safety distance.

Make sure that clothing, hoses, cleaning devices do not get caught by the moving components of the machine; danger of serious bodily injuries and damage to the machine.

Do not run the machine unattended.

After pre cleaning, stop the machine, set the main switch to position **0** and secure it.

Main cleaning



The main electrical switch shall be at the **0** position and lock it.
 Observe the safety instructions at the beginning of this manual.
 Wear protective clothing during cleaning and sanitation operations.
 Observe the specific national regulations for the cleaning agents and disinfectants used.

Operation	Cleaning Agent	Device / Method	Remarks
Main Cleaning	2 – 5% P3-topax 17 *	Foam with low-pressure foaming device	From bottom to top reaction time 15 minutes
	For removing calcareous deposits, use 1 time per week cleaning foam 2 – 5% P3-topax 56 instead of P3-topax 17		From bottom to top reaction time 15 minutes
	Drinking water at 60°C	Rinse with low pressure, max 30 bar	Carefully from top to bottom
Check		Visual	
Sanitation	1% P3-topax 91	Low-pressure spraying, max 30 bar	From top to bottom, reaction time about 10 – 15 minutes since contingent upon germ spectrum; refer to product data sheet
Rinsing	Drinking water max 20°C	Low pressure, max. 30 bar	Rinse again carefully

* To avoid white deposits, P3-topax 17 should not be foamed on hot surfaces.



The cleaning agents P3-topax 17 and P3-topax 56 recommended the avoidance of painted areas of the machine due to aggressive cleaning properties of the products..

After cleaning run the machine briefly and grease to remove any cleaning fluid that may have penetrated the bearings.



Correctly dispose of cleaning agents that are ecologically harmful.

Preservation



Prior to the machine not being used for long periods. Protect the machine using food approved preservatives.

Recommended preservatives:

- Preservation spray **MBF 370** – ref. no. 51.10.0201.(400 ml can)
- Preservation liquid **MBF 360** – ref. no. 51.10.0200 (5 l container)

These preservatives meet the requirements according to USDA-H1

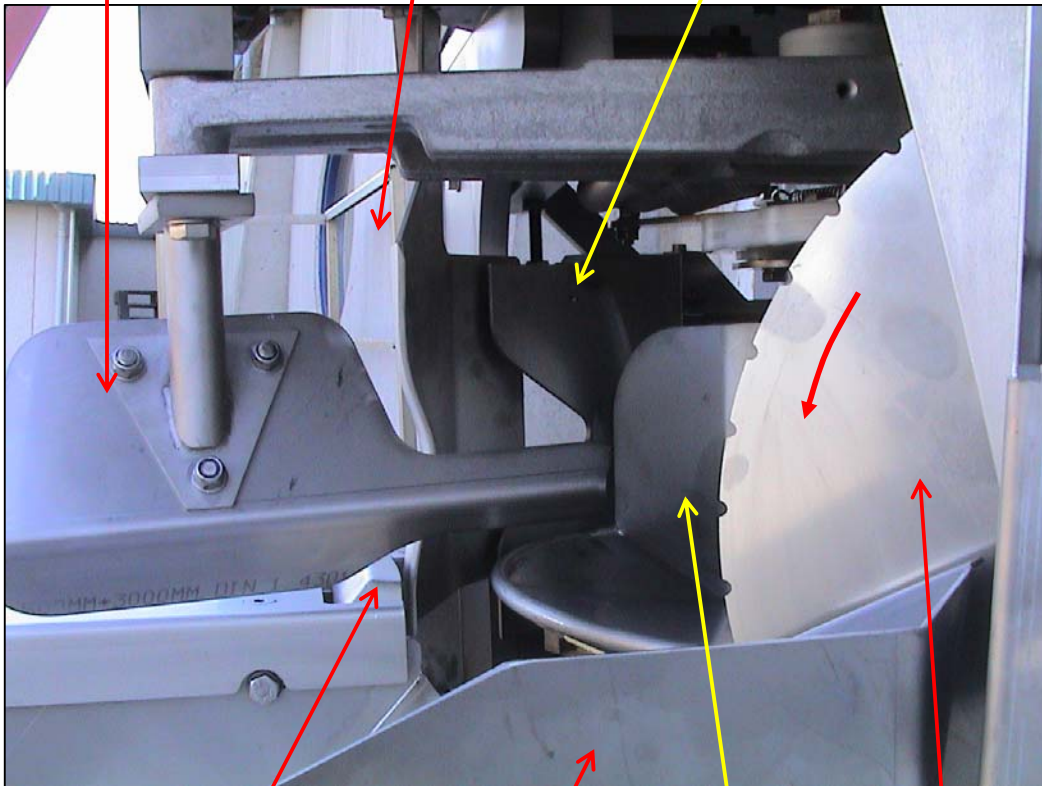
Before resuming production, remove the preservative from all areas in contact with the product:

- with low pressure, max 30 bar.
- with 60°C drinking water.
- from bottom to top.

Back-plate

In-feed plate

Transport-fork



Trigger

Fish-chute

Head-chute

Knife

Adjustment of the cycle control proximity switch



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

It is important to verify that the proximity switch is correctly located in the holder (fig.4 item 2) prior to adjustment.

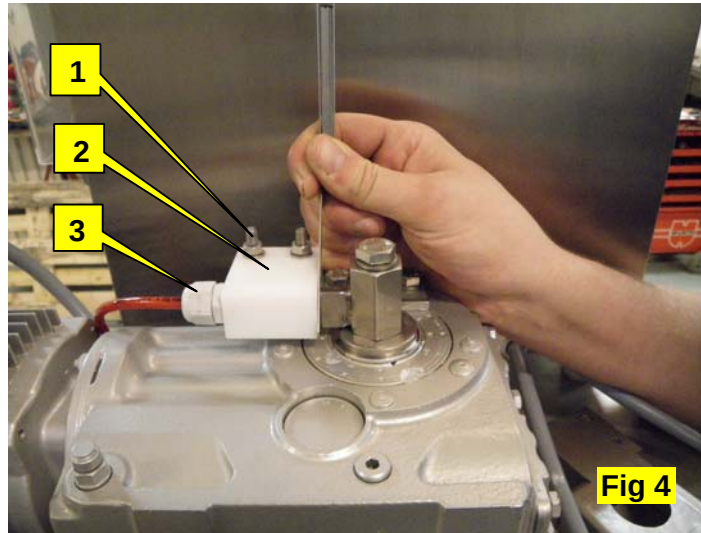
Loosen the gland nut (fig.4 item 3). Push the cable sheath towards the holder, whilst maintaining pressure re-tighten the gland nut.

Loosen the 2 hexagon nuts (fig.4 item 1).

Rotate the machine manually as described on page 13, so that the switch-fane is at its closest position to the proximity switch holder (fig.4 item 2).

Adjust the distance between the switch-fane and the proximity switch (fig.4 item 2) to 1mm.

Re-tighten the 2 hexagon nuts (fig.4 item 1).



Adjustment of the locking arm stop



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

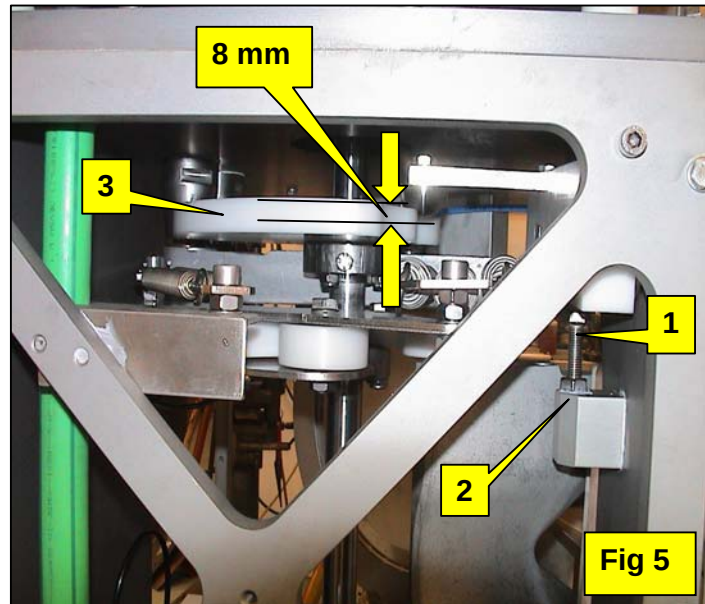
Loosen the hexagon locknut (fig.5 item 2).

The machine can be manually rotated as described on page 13, to aid the setting of the locking arm.

The rest position of the locking arm should be 8mm below the level of the cam.

Adjust the rest position by turning the hexagon head bolt (fig.5 item 1).

Re-tighten the hexagon locknut (fig.5 item 2).



Adjustment of cycle start position



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.



Note:

The setting of the locking arm stop must be completed prior to adjusting the cycle start position.

Loosen (do not remove) the 3 hexagon head bolts (fig.6 item 1).

Turn the cam (fig.6 item 2) as far possible anti-clock wise.

Re-tighten the 3 hexagon bolts (fig.6 item 1)

(continued on next page)

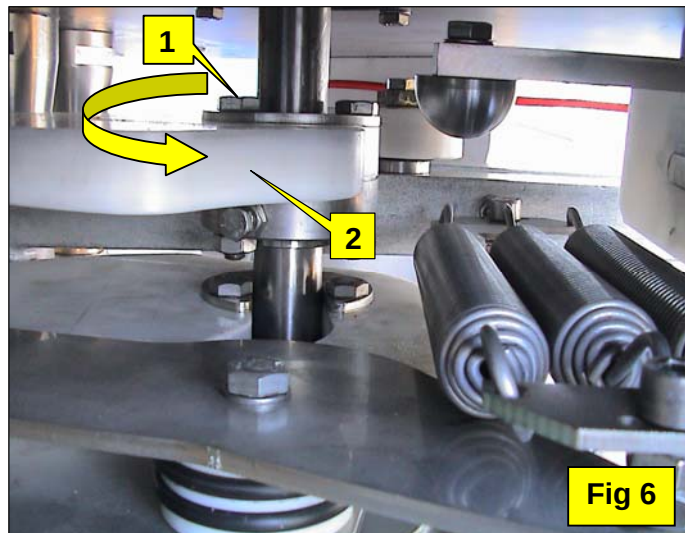
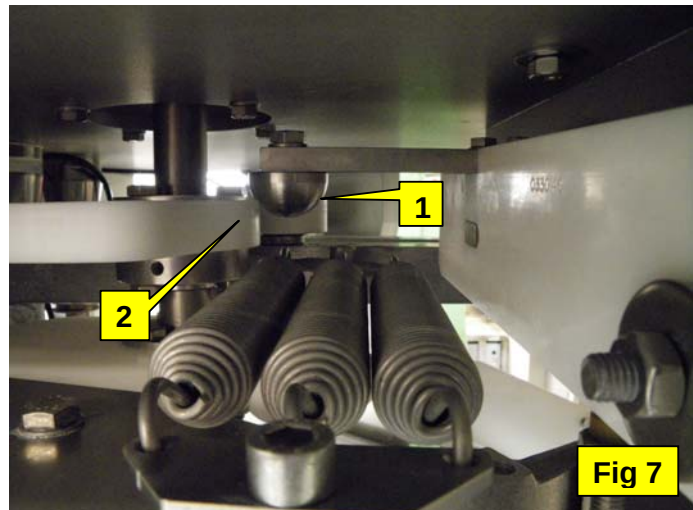


Fig 6

Rotate the machine manually as described on page 13 until the ball (fig.7 item 1) touches the cam (fig.7 item 2).



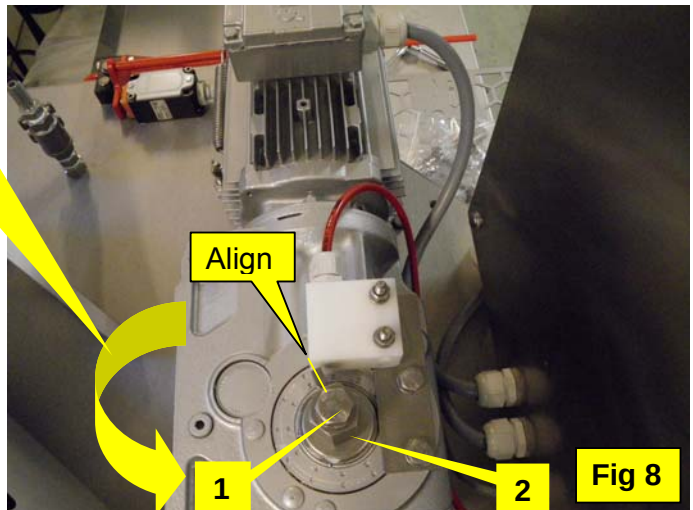
Direction of Rotation

Loosen hexagon bolt (fig.8, item 1).

Turn the activating fane (fig.8 item 2). Align the centre line of the fane to the corner of the proximity switch housing.

Re-tighten hexagon bolt (fig.8 item 1).

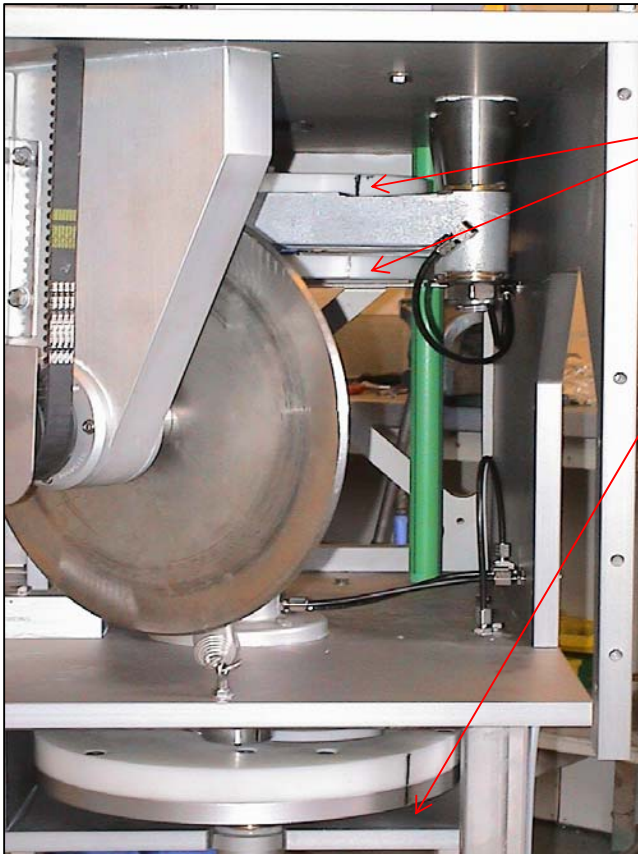
Cycle start position setting is now complete.



Cam alignment position



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.



The upper 2 cams have a setting mark on the uppermost side of the cam.

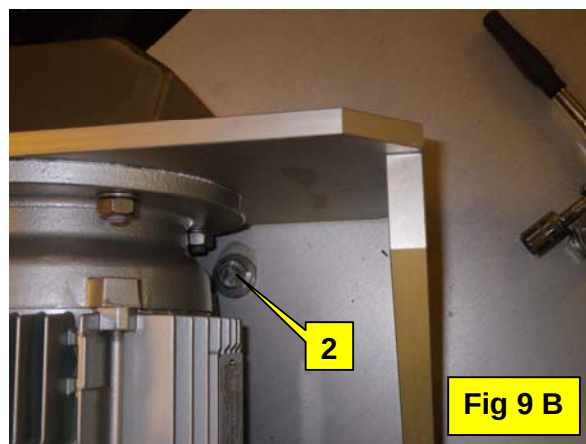
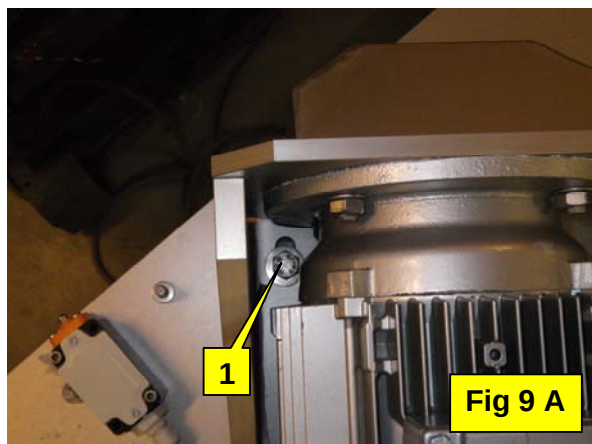
The setting mark for the lowest cam is located on the underside of the of the cam support.

Adjustment of the knife-drive support bracket



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Loosen do not remove the 2 hexagon bolts (fig.9A and 9B Items 1 and 2).



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Adjust the inner edge to 184mm
(7 1/4") as shown (fig.10).

Note:
The dimension is taken square to the
side of the machine



Adjust the outer edge to 34mm
(1 5/16") as shown (fig.11).

Note:
The dimension is taken square to the
side of the machine.

Re-tighten the 2 hexagon bolts.



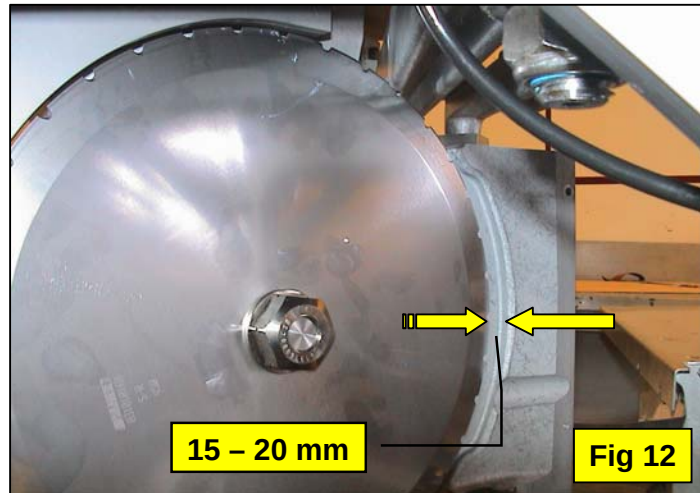
Adjustment of the transport fork setting distance.



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Manually rotate the machine as described on page 13 to move the transport fork as close as possible to the knife.

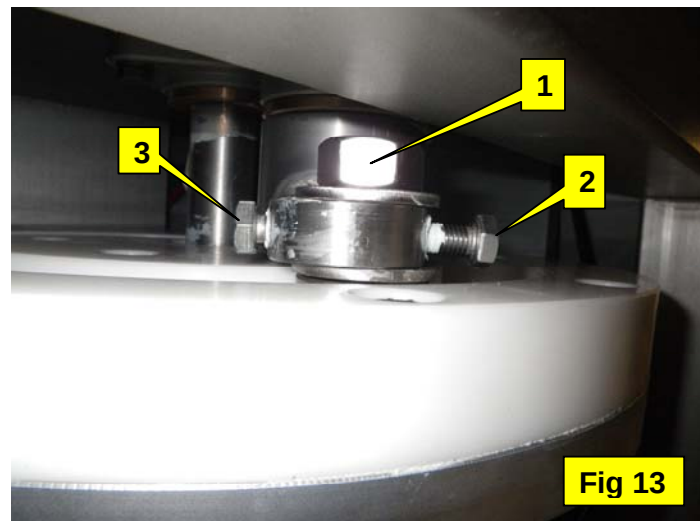
The transport fork should be 15 to 20mm from the circular knife, see (fig.11). For adjustment see (fig.13).



Slacken the hexagon nut (fig.13 item 1) and using the 2 adjusting bolts adjust (fig.13 items 2 and 3) the position of the transport fork.

It is important to ensure that the bolts (fig.13 items 2 and 3) are re-tightened after adjustment.

When complete re-tighten the hexagon nut.



Replacement of the transport fork cam roller



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Manually rotate the machine as described on page 13 to aligning the cam roller to the access hole machined in the cam support plate (fig.14).

Slacken the 2 hexagon head bolts (fig.13 items 1 and 2) and remove the hexagon nut (fig.13 item 1).

The transport cam roller can now be removed through the access hole.

Reverse the procedure to re-assemble.



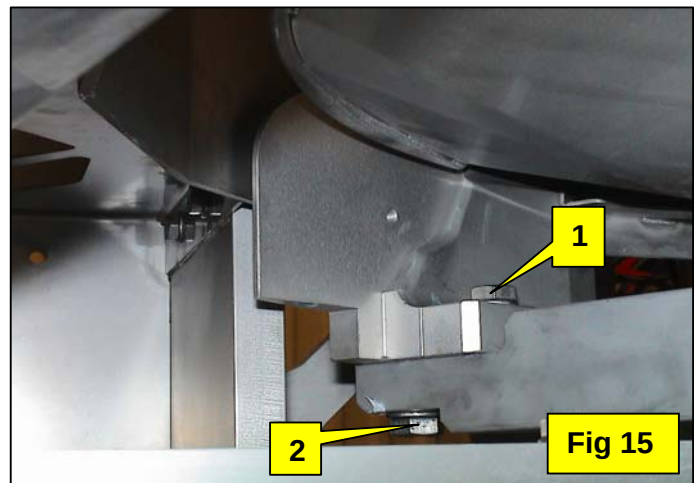
Adjustment of the Transport Fork



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

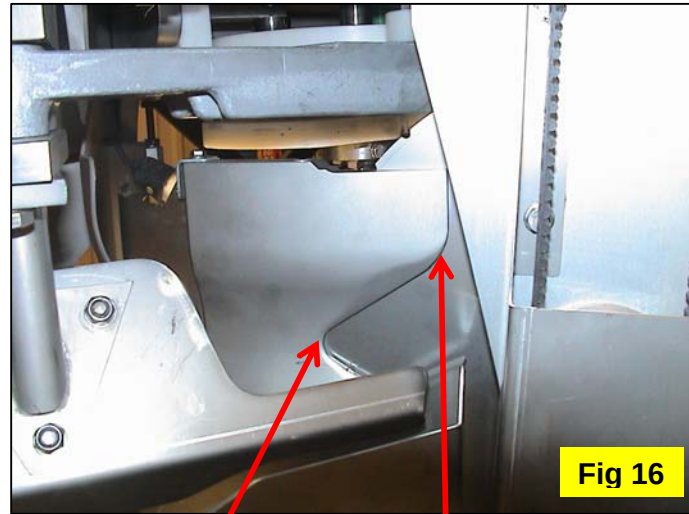
Manually rotate the machine as described on page 13, to move the transport fork as close as possible to the knife.

Slacken, do not remove the hexagon bolts (fig.15 item 1 & 2).



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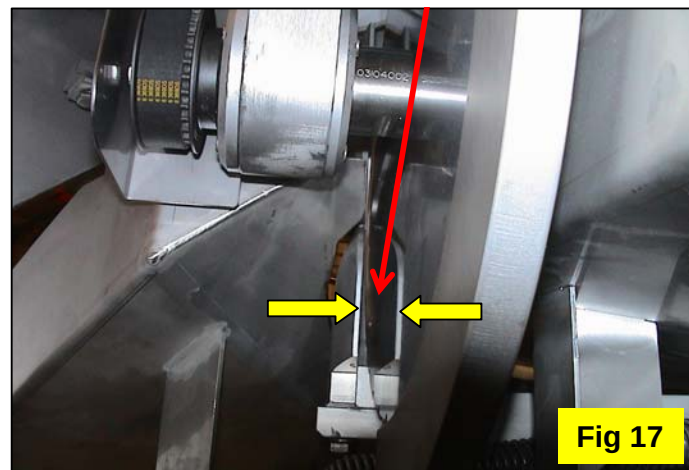
The distance between the middle of the transport fork to the knife should be between 2 to 3mm in the middle and 10mm at the end. See (fig.16 & 17).



2 to 3mm

10mm

Re-tighten the hexagon bolts (fig.15 item 1 and 2).



Adjustment of the in-feed plate

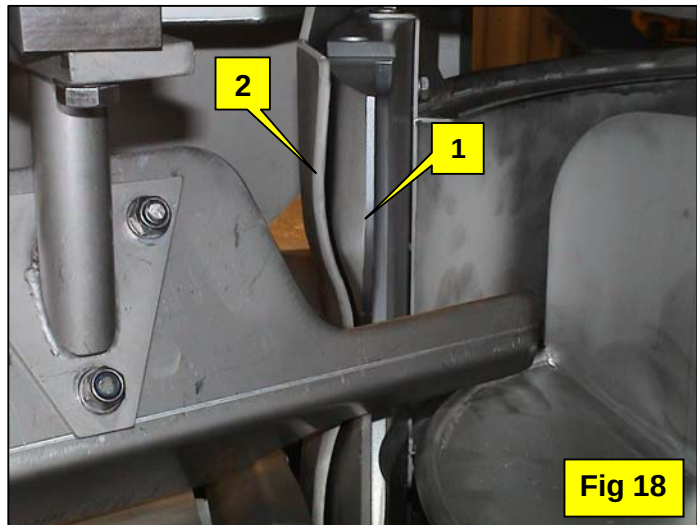


Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Manually rotate the machine as described on page 13, to move the transport fork to the in-feed plate.

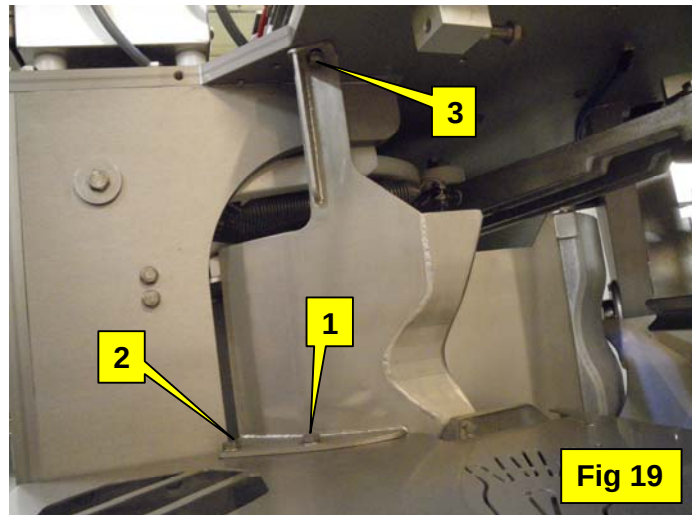
To adjust the in-feed plate (fig.18 item 2), slacken the 3 hexagon bolts (fig.19 item 1, 2 and 3).

The in-feed plate (fig.18 item 2) should be adjusted as close to the transport fork (fig.18 item 1) as possible.



It is important that the in-feed plate and the transport fork do not touch during the complete cycle.

Re-tighten the 3 hexagon bolts (fig.19 item 1, 2 and 3)



Adjustment of the back plate maximum travel stop screw.

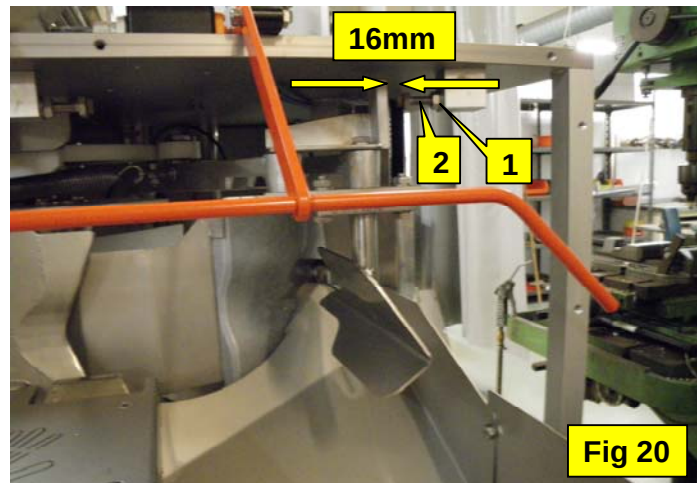


Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Manually rotate the machine as described on page 13, until the back plate reaches its maximum travel.

Slacken the lock nut (fig.20 item 1) and adjust the stop screw (fig.20 item 2) to a clearance distance of 16mm (5/8").

Re-tighten the lock nut.



Adjustment of the angular position of the back plate.

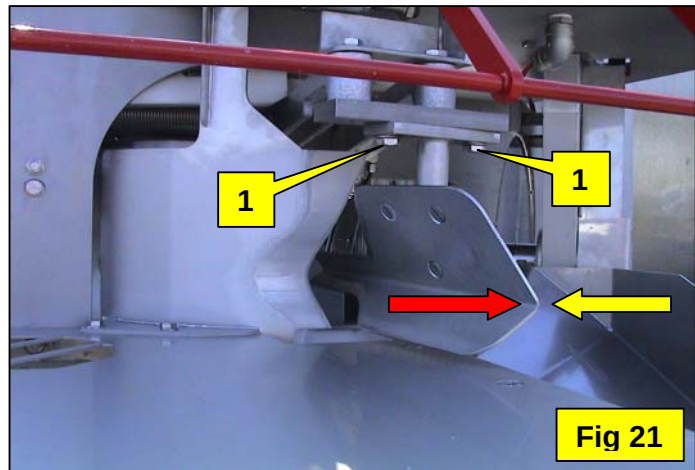


Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Loosen, do not remove, the 2 hexagon head bolts (fig.21 item 1) in the slots.

Adjust the back plate angle to accommodate different species of fish. Adjustment in the direction of the **RED arrow** (fig.21) (closer to neck bone more yield).

Adjustment in the direction of the **YELLOW arrow** (fig.21) (away from neck bone less yield).



Adjustment of the back plate minimum travel stop screw.

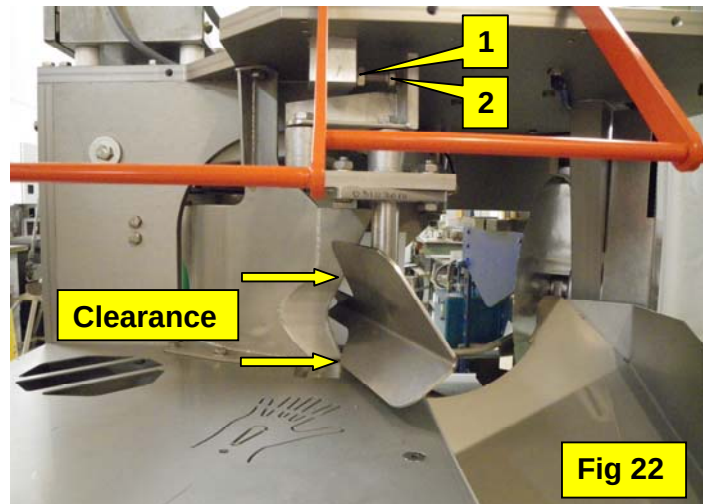


Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Manually rotate the machine, as described on page 13, until the back plate reaches its minimum travel.

Slacken the lock nut (fig.22 item 1) and adjust the stop screw (fig.22 item 2) to maintain a clearance of approximately 10mm (3/8").

Re-tighten the lock nut.



Adjustment of back-plate travel position



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Manually rotate the machine, as described on page 13, until the back plate is approximately in the middle of its travel.

Loosen do not remove the hexagon head bolt (fig.23 item 1).

Adjust the back plate (fig.24, item 2) position by turning the excentric bushing (fig.23 item 2) for the back-plate cam roller (fig. 23 item, 3).

The clearance of the back plate to the transport should be approximately 10mm (3/8") (fig.24).

Re-tighten the hexagon head bolt (fig.23 item 1)

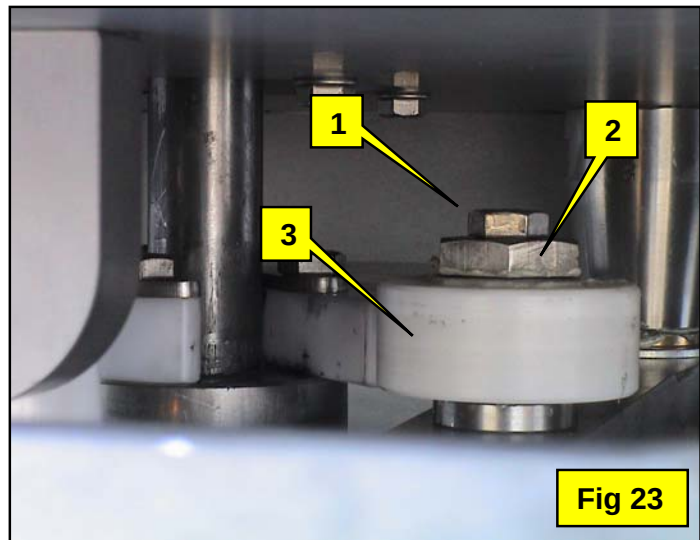


Fig 23

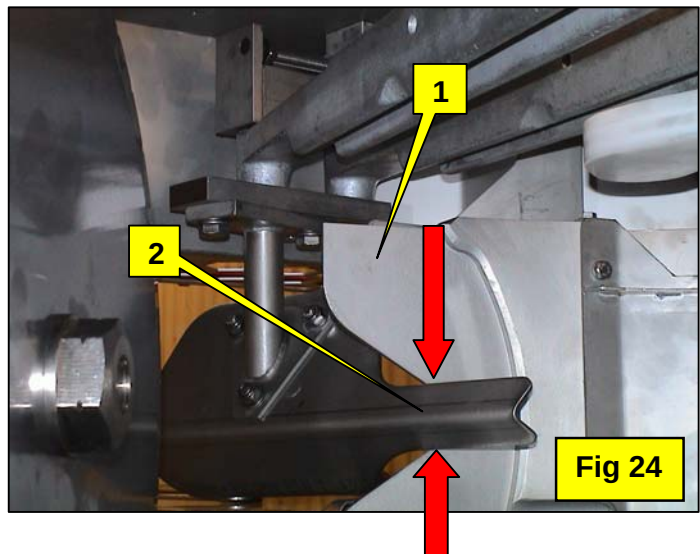


Fig 24

Adjustment of the trigger



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

It is important to verify that the proximity switch is correctly located in the holder (fig.23 item 2) prior to adjustment.

Loosen the gland nut (fig.25 item 5) push the cable sheath towards the holder, whilst maintaining pressure re-tighten the gland nut.

Loosen, do not remove, the 2 hexagon head bolts (fig. 25 item 1).

Adjust the clearance of the proximity switch holder (fig.25 item 2) to 1mm (0.040") (fig.25 item 4). Re-tighten the 2 hexagon head bolts (fig.25 item 1).

The trigger weight can be adjusted by loosening the hexagon head nut and bolt (fig.25 item 3) and moving its position along the slot.

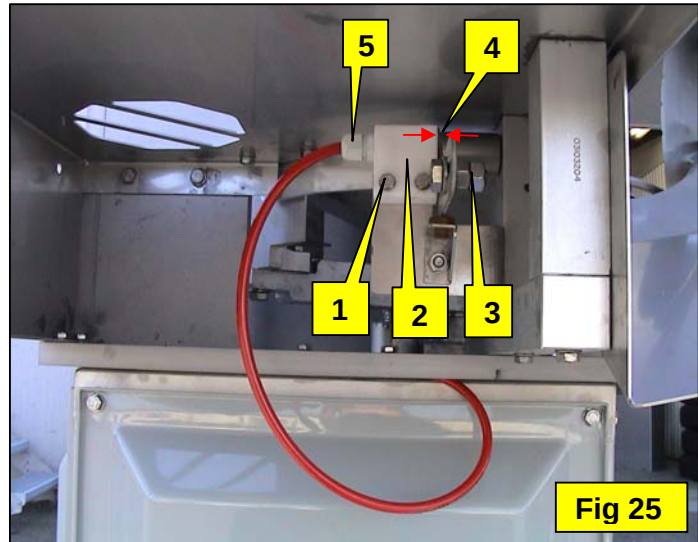


Fig 25

When complete re-tighten the hexagon head nut and bolt.



Warning

It is possible a piece of fish can keep the trigger depressed allowing the machine to continuously cycle. It is important to keep the area around the cycle start trigger clear (see fig.26).

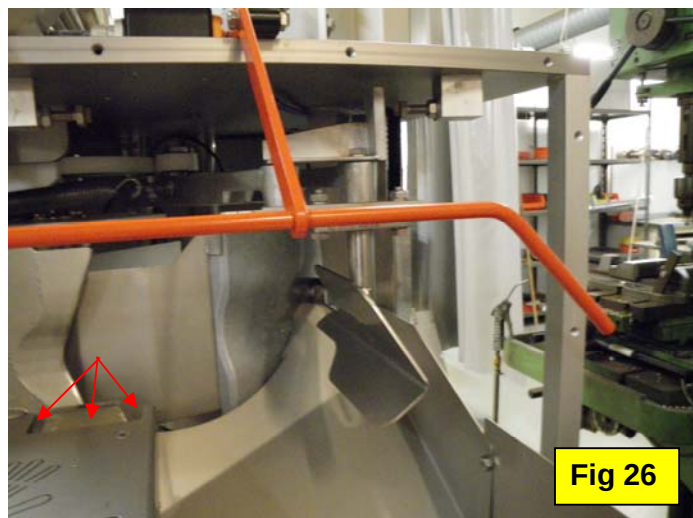


Fig 26

Tension of the knife drive belt



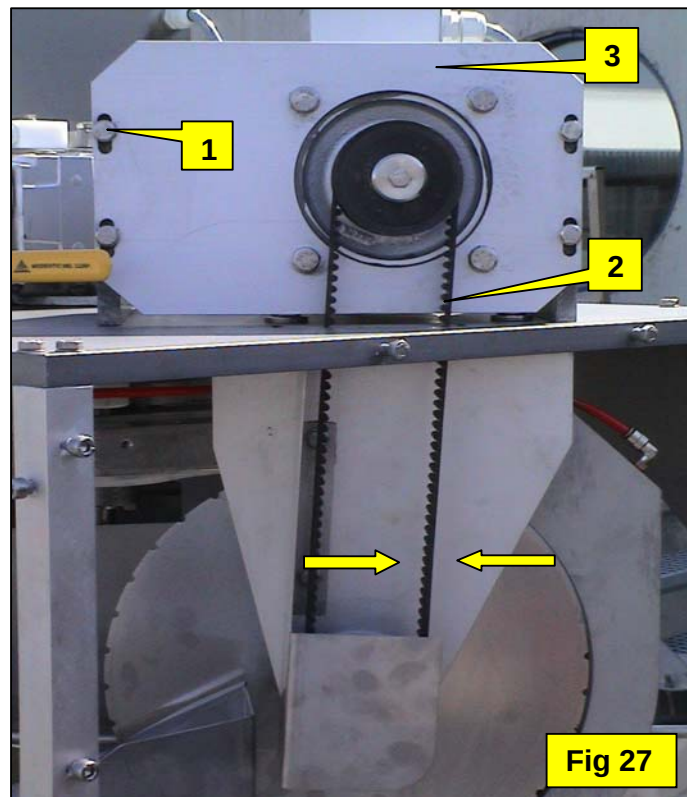
Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

Loosen, do not remove, four hexagon head bolts (fig. 27 item 1).

Adjust the tension off the toothed belt (fig. 27 item 2) by lifting the motor plate (fig. 27 item 3) up or down in the slots.

The correct tension of the toothed belt should allow approximately 20mm (3/4") of movement in the middle of the belt.

When complete re-tighten the four hexagon head bolts.



Knives

To achieve the best possible results, knife edges should be sharp. The knife is to be verified at regular intervals and be re-sharpened if required. It is necessary to remove the knife from the machine for sharpening.

Knife Replacement.



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

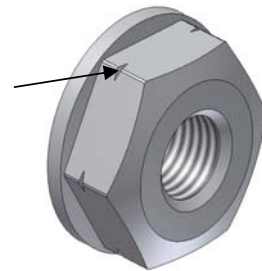


Danger wear protective gloves when handling knives.

(Part no. 52100196 = 1 off; 2 are included in the tool set)



Knife nuts with left-handed threads are marked with notches on the hexagon.



Using two 41mm spanners one on the knife shaft and the other on the knife nut slacken the M20 LEFT HAND THREAD knife nut

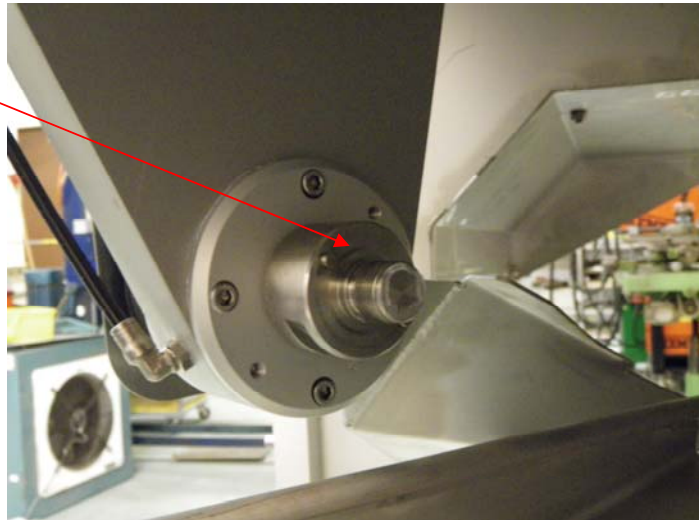
Remove the knife nut.

It is now possible to remove the rotary knife.



After removal of the rotary knife.

Clean the knife mounting face.

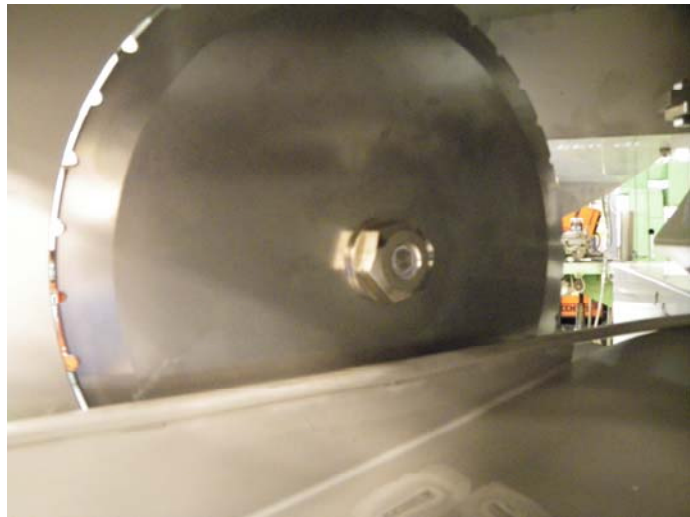


Replace the rotary knife ensuring the knife drive dogs are located in the rotary knife.



Use a suitable food quality anti seize lubricant when re-placing the knife nut.

Using two 41mm spanners one on the knife shaft and the other on the knife nut tighten the M20 LEFT HAND THREAD knife nut



Grease Lubrication

The machine has been lubricated with BAADER **"Special grease GLS 380/N3"**.

This grease is of the GRAS type, semi-synthetic and highly seawater resistant. It complies with the German Food and Consumer Goods Acts (LMBG § 5, art. 1, clause 1) and is authorized according to USDA H1. We recommend using this lubricant at all times. When using other GRAS lubricants, the trouble free functioning of the machine cannot be guaranteed.

Ensure only grease free from contaminants is used.



Do not blend with mineral lubricants.

Note that mineral lubricants do not comply with the provisions of Food and Consumer Goods Acts and may thus not be used.



The complete lubrication system (jerk fitting, mouth of grease gun, hand lever press and the coupling) should be free of any impurities!

The maximum lubricant pressure at the mouth of the grease gun should not exceed 190 bar.

Whenever cleaned, the machine is to be lubricated to expel any cleaning fluids that may have penetrated the machine bearings.

Lubricant change of the gear motors



Prior to working on the machine switch the main electrical switch to the **0** position and lock it. Failure to comply may result in serious personal injury or death.

- Unscrew the drain and vent plugs.
- After draining the oil, flush the gear box thoroughly using suitable flushing oil.
- Prior to filling the gear motor with new oil, make sure that all flushing oil residue is removed. Replace the drain plug.
- Checking the oil level: With the gear at rest, the oil must extend to the lower rim of the threaded bore when the oil level screw is removed.
- Refit the vent plug.
- The roller bearings should to be cleaned and greased during the same period. Make sure that only one third of the roller bearing space is filled with grease to prevent premature failure.
- Lubrication change every 2000 hrs or 1 year.

Country related list of cleaning Agents and Disinfectants

Country	Product					
	P3-topax 12	P3-topax 17	P3-topax 56	P3-topax 68	P3-topax 99	P3-topax 91
Brazil	Quorum Pink II	Quorum Pink II	Quorum Purple	Quorum Amber	Quorum Clear	Ster-Bac
Canada	Quorum Pink II	Quorum Pink II	Quorum Purple	Quorum Amber	Quorum Clear	Ster-Bac
France	P3-topax 12	P3-topax C 80	P3-topax M acid	P3-topax M55	P3-sterylmouss	P3-triquart
Germany	P3-topax 12	P3-clint RI	P3-topax 56	P3-zinnfest flüssig	P3-topax 99	P3-topax 91
Greece	P3-topax 12	P3-topax 17	P3-topax 56	P3-topax 68	P3-topax 99	P3-topax 91
Italy	P3-topax 12	P3-topax 17	P3-topax L54	P3-topax 68	P3-topax SAN	P3-topax 91
Japan	P3-topax 12		P3-topax 56	P3-topax 68	P3-topax 99	P3-triquart
Namibia	Quorum Pink II	Quorum Pink II	Quorum Purple	Quorum Amber	Quorum Clear	Ster-Bac
Netherlands	P3-topax 12	P3-topax 17	P3-topax 56	P3-topax 68	P3-topax 99	P3-triquart
Norway	TP 12	TP 17	TP 56	TP 68	TP 99	Triquart AP
Poland	P3-topax 12	P3-topax 17	P3-topax 56	P3-topax 68	P3-topax 99	P3-topax 91
Russia	P3-topax 12	P3-clint RI	P3-topax 56	P3-zinnfest flüssig	P3-topax 99	P3-topax 91
South Africa	Quorum Pink II	Quorum Pink II	Quorum Purple	Quorum Amber	Quorum Clear	Ster-Bac
Spain	P3-topax 12	P3-topax 17	P3-topax 56	P3-topax 68	P3-topax 99	P3-topax 91
United Kingdom	P3-FBC foam	P3-rik	P3-topax 56	P3-topax 68		P3-triquart
Ukraine	P3-topax 12	P3-clint RI	P3-topax 56	P3-zinnfest flüssig	P3-topax 99	P3-topax 91
USA	Quorum Pink II	Quorum Pink II	Quorum Purple	Quorum Amber	Quorum Clear	Ster-Bac

Henkel Sales Partners

European Operation		
Henkel-Ecolab GmbH & Co.OHG Food & Beverage P3 Division	Reisholzer Werftstr. 34-42 D-40589 Düsseldorf or P.O. Box 13 04 06 D-40554 Düsseldorf Germany	Tel.: +49 - 211 98 93 203 Fax.: +49 - 211 98 93 223
Austria Henkel-Ecolab GmbH Erdbergstraße 29 A-1031 Wien Österreich Attn: Gerald Hörmann Tel: +43 171 52 55 08 12 Fax: +43 171 52 55 08 54	Czech Republic Henkel-Ecolab spol. S.r.o. Jakubské náměstí 1 CZ-65686 Brno Czech Republic Attn: Peter Slapal Tel: +420 54 22 10 823 Fax: +420 54 22 11 227	Hungary Henkel-Ecolab Kft David Ferenc. Utca t H-1113 Budapest Hungary Attn: Pal Teglas Tel: +36 1 372 55 76 Fax: +36 1 209 15 44
Belgium Henkel-Ecolab n.v. Doornveld, Industrie Asse 3, Nr.11 B-1731 Zellik-Asse Belgium Attn: Stefan Naten Tel: +32 24 67 51 62 Fax: +32 24 67 51 13	Denmark Henkel-Ecolab A/S Carl-Jacobsens Vej 29-37 DK-2500 Copenhagen-Valby Denmark Attn: Vagn Andersen Tel: +45 36 15 85 85 Fax: +45 36 15 85 99	Ireland Henkel-Ecolab Ltd Beechwood Close, Boghall Road Bray Co Wicklow Ireland Attn: Michael McKenna Tel: +35 31 28 68 225 Fax: +35 31 28 69 298
Brazil Ecolab Quimira Ltda Brazil Av. Brigadeiro Luiz Antonio 3767 / 3779 Sao Paulo – SP1401-001 Brazil Attn: Gustavo Miranda Tel: +55 113886-2503 Fax: +55 113885-8479	Finland Oy Henkel-Ecolab Ab Makelankatu 54 A FIN-00510 Helsinki Finland Attn: Vagn Andersen (Denmark based) Tel: +358 9 39 65 51 Fax: +358 9 39 65 53 05	Italy Henkel-Ecolab S.p.A. Centro Direzionale Colleoni Via Paracelso 6, Palazzo Liocomo 20041 Agrate Branza Milano Italy Attn: Anette Dransfeld Tel: + 39 39 60 50 588 Fax: +39 39 60 50 573
Bulgarien Henkel-Ecolab Bulgaria Food Prof. Dr. g. Pavlov Str. 35 BG-1111 Sofia Bulgaria Attn: Martin Cheytanov Tel: +359 2 971 22 35 +359 2 971 36 97 Fax: +359 2 971 26 50	France Henkel-Ecolab SNC 8, Rue Rouget de Lisle F-92441 Issy-Les-Mouineaux France Attn: Bertrand Laroche Tel: +33 140 93 93 06 Fax: +33 140 93 94 60	Japan Ecolab K.K. Takadanobaba Center Building 31-18 Takadanobaba 1-chome Shinjuku-ku, Tokyo 169-8631 Japan Attn: Hideo Oishi Tel: + 81 3 5285 2671 Fax: + 81 3 5285 2680
Canada Henkel-Ecolab Ltd 5105 Tomken Road Mississauga Ontario L4W 2X5 Canada Attn: Lew Chester/ Bruce Hamilton Tel: +1 905 238 0171 Fax: +1 905 238 0375	Germany Henkel-Ecolab Deutschland GmbH Reisholzer Werftstr 38-42 D-40589 Dusseldorf Germany Attn: Walter Hamels Tel: +49 211 98 93 551 Fax: +49 211 98 93 386	Netherlands Henkel-Ecolab B>V> Edisonbaan 9-11 NL-3439 MN Nieuwegein Netherlands Attn: Ari de Groot Tel: +31 30 60 82 470 Fax: + 31 30 60 82 479
Croatia Henkel-Ecolab Zagreb d. o.o. Kucerina 5 HR-10 000 Zagreb Croatia Attn: Dejan Gorsek (Slovenia based) Tel: +385 – 1365 1383 Fax: +385 – 1365 1388	Greece Henkel-Ecolab A.E. 15, Flemingstr GR 15123 Maroussi-Athens Greece Attn: Diitri Valachis Tel: + 30 16 873 730 Fax: +30 16 841 333	Norway Henkel-Ecolab a.s. Stalwerksveien 1,Postboks 6440 Etterstad, N-0605 Oslo Norway Attn: Vagn Andersen (Denmark based) Tel: +47 22 681 800 Fax: +47 22 682 050

Poland Henkel-Ecolab Sp.z.o.o. Ul. Kalwaryjska 69 PL-30504 Krakow Poland Attn: Piotr Kubas Tel: + 48 12 2616 100 Fax: + 48 12 2616 101	South Africa/Namibia Klenzade South Africa (Pty) lotd Trading as Ecolab 1 Ampete Street, Chloorkop Edenglen 1633 Tel: + 27 11393 5022 Fax: + 27 11393 1567	United Kingdom Henkel-Ecolab UK Ltd David Murray John Building Swindon, Wiltshire SN1 1ND United Kingdom Attn: Alan Usher Tel: + 44 1 793 54 87 81 Fax: + 44 1 793 54 88 92
Portugal Henkel Ecolab S.A. Estrada Outeiro de Polima Monte Trigo Lote C2 – Aboboda 2775 S Domingos de Rana Portugal Attn: Anette Dransfeld (Italy based) Tel: + 35 12 14 480 750 Fax: + 35 12 14 480 788	Spain Henkel-Ecolab S.A. Edificio Conata Frucutos Gelabert 2-4, 7 E-08790 San Joan Despi Barcelona Spain Attn: Jose Fernandez Tel: + 34 93 475 8903 Fax: + 34 93 477 0539	USA Ecolab Inc 840 Sibley Memorial Highway St Paul, MN 55118 USA Attn: Shaun Kennedy Tel: + 1 651 306 5857 Fax: + 1 651 552 4821
Romania Henkel-Ecolab srl (lasi office) 3 Sos., Nicolina Street BI 928, parter Lasi R-6600 Romania Attn: Ciprian Petcu Tel: +40 32 221 859 Tel: + 40 32 222 597 Tel: + 40 32 226 459 Fax: + 40 32 226 448 (Bucharest Office) Str. Horia Closca si Crisan Street 61-63 Otopeni, lifov Bucharest R-6600 Romania Tel: + 40 1 203 00 52/53/54/56 Fax: + 40 32 226 448	Sweden Henkel-Ecolab A/B Box 61 03 Fruangsplan 10 S-12907 Hagersten Sweden Attn: Vagn Andersen (Denmark based) Tel: + 46 8 60 32 200 Fax: + 46 8 60 32 228	
Russia Henkel-Ecolab Chaussee Entuziastov 14 111,024 Moscow Russia Attn: Alexei V Latyshev Tel: + 7 095 785 27 26 Fax: + 7 095 785 27 25	Switzerland Henkel-Ecolab AG Kriegackerstr 91 CH-4132 Muttentz Schweiz Attn: Marco Moser Tel: + 41 61 46 69 408 Fax: + 41 61 46 69 455	
Slovakia Henkel-Ecolab Bratislava Spol s.r.o. Zahradnicka 91 82009 Bratislava Slovakia Attn: Robert Krutak Tel: + 421 7 5024 6391/92 Fax: + 421 7 5024 6388	Turkey Henkel-Ecolab Temizleme Sistemleri A>S> Sahrayi Cedid Mah, Halk Sok. No.54 Nokta Is Merkezi Kozyatagi – Istanbul Turkey Attn: Anette Dransfeld (Italy based) Tel: + 90 216 260 99 22 Fax: + 90 216 360 60 81	
Slovenia Henkel-Ecolab d.o.o. Vajngerlova 4 SLO-2001 Maribor Slovenia Attn: Dejan Gorsek Tel: + 38 62 42 93 100 Fax: + 38 62 42 96 152	Ukraine Henkel-Ecolab LLC Bulv. Lichachova, 1/27 Kiev-133 Ukraine Attn: Anatoliy Kindyalyuk Tel: +380 44 29 4 4441 Tel: + 380 44 29 6 6721 Fax: + 380 44 23 0 2873	

Lubrication and Preservative Recommendation

The mineral oil companies listed maintain Technical Services whose engineers will always be available to our customers to give technical advice in lubricating matters.

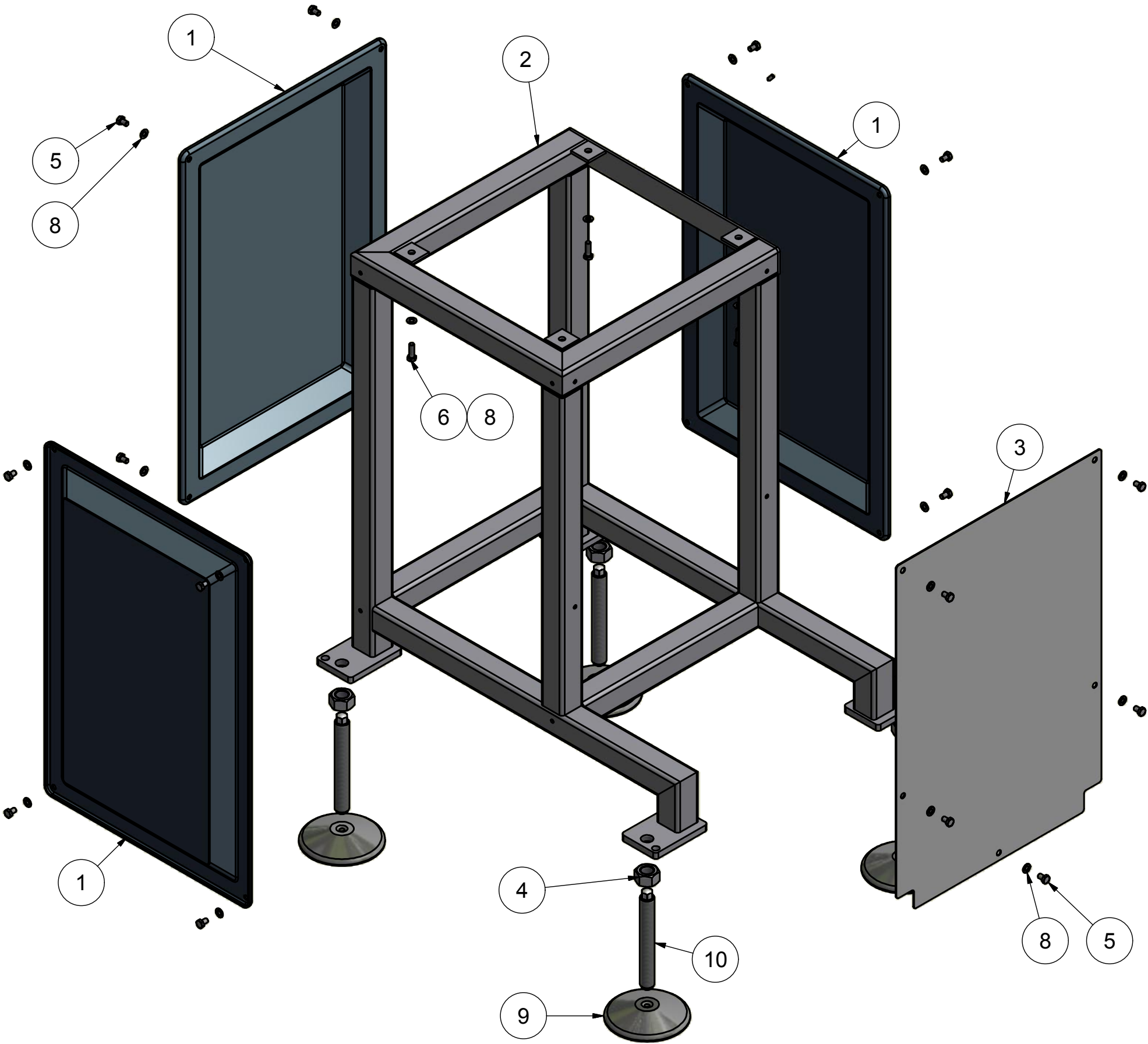
Lubricant					
Soap Base					
Code	Din 51502				
	ISO 3498				
	Viscosity				
Company					
Aral					
BP					
Castrol					
Chevron					
Esso					
Fina					
Kluber					
Mobil					
Shell					
Texaco					
Tribol ICI Molub-Alloy					

Special lubricants and preservatives	Baader Lubrication Grease			Baader Special spray	Baader Preservation Spray	Baader Preservation Liquid
	GLS 380/N3 ¹⁾			FLC 65 ²⁾	MBF 370 ²⁾	MBF 360 ²⁾
Part No.	51.50.0103	51.50.0102	51.50.0109	51.10.0186	51.10.0201	51.10.0200
Available sizes	400 g Cartridge	25 kg Hobbock	50 kg Hobbock	400 ml Can	400 ml Can	5 l Receptacle

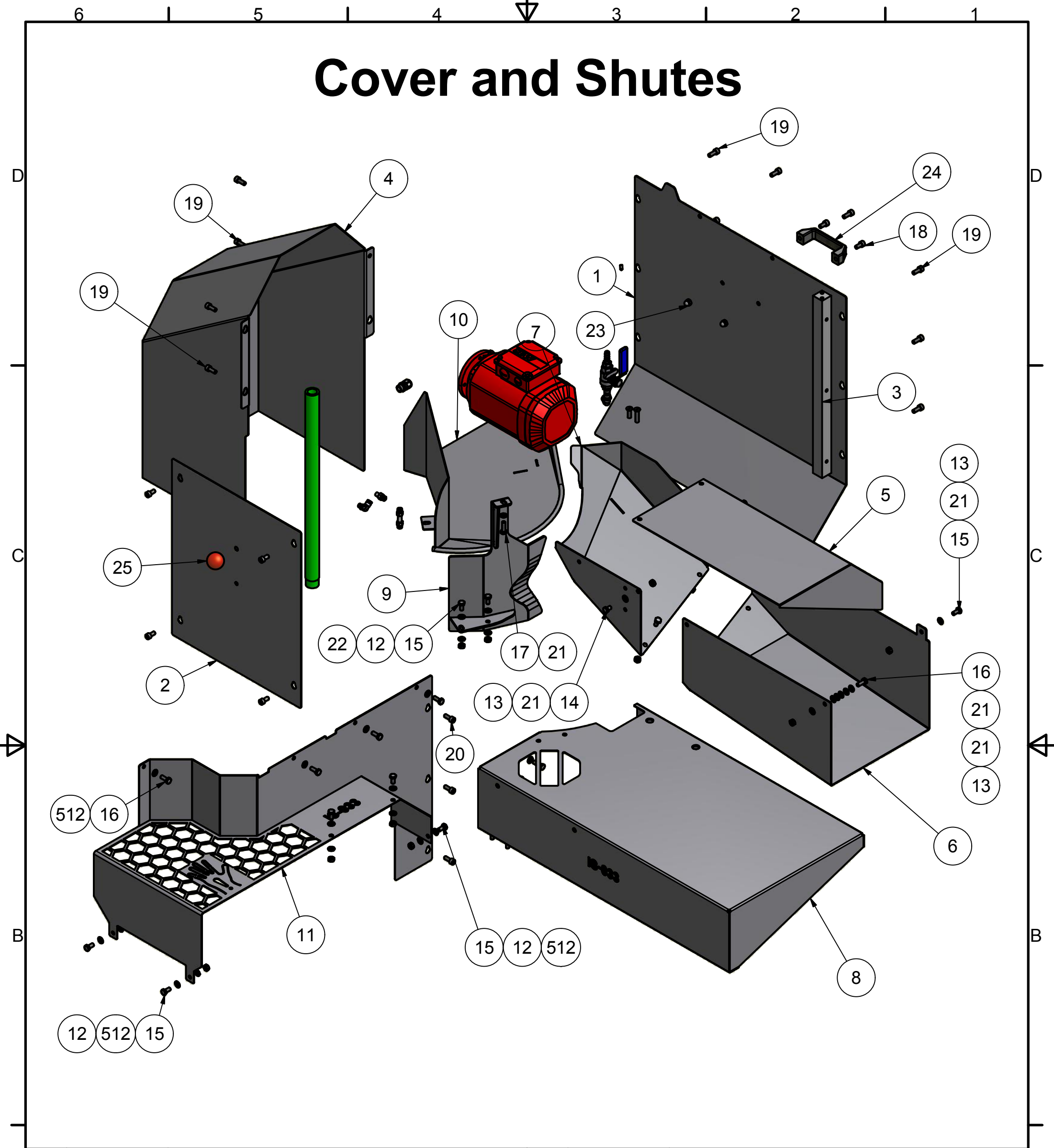
¹⁾ authorised by USDA-H1. The lubricant is of the GRAS type.

²⁾ comply with the USDA-H1 requirements and is of the GRAS type, semi-synthetic and extremely seawater resistant.

Frame and Covers

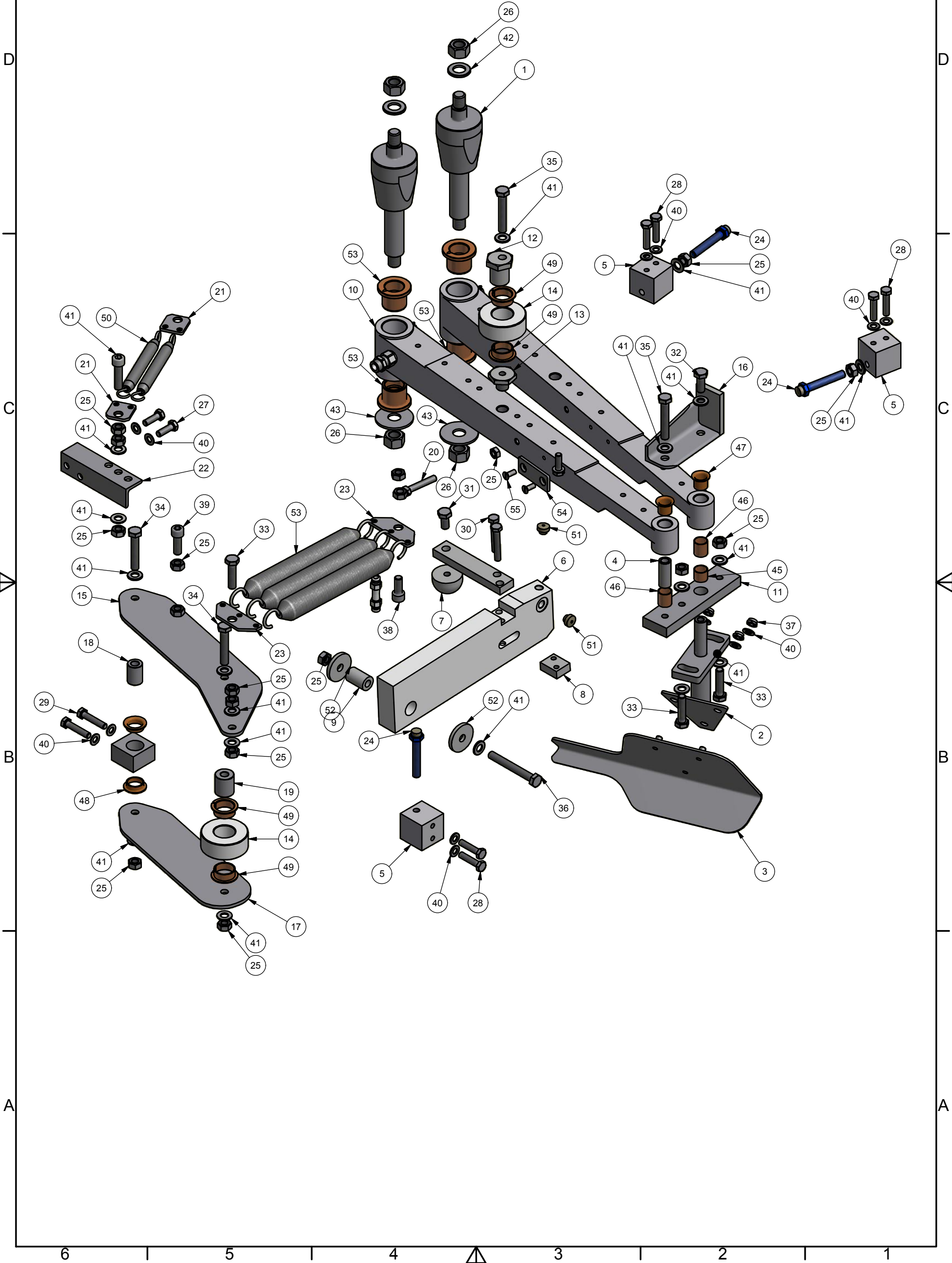


Item	Part No.	Description
1	00106005	Cover
2	03301051	Machine-Frame
3	03301052	Cover
4	20600240	Nut M24 Din 934
5	30810812	Hex Head Bolt M8 x 12
6	30810825	Hex Head Bolt M8 x 25
7	31800084	Washer M8 Din 9021 B
8	31800084	Washer M8 Din 9021 B
9	39100288	Foot plate
10	95030002	Adjusting spindle



Item	Part No	Description	Item	Part No	Description
1	03101302	Cover	14	30810812	Hex Head Bolt M8 x 12
2	03101304	Cover	15	30810815	Hex Head Bolt M8 x 16
3	03101306	Bar	16	30810820	Hex Head Bolt M8 x 20
4	03301301	Safety cover	17	30810825	Hex Head Bolt M8 x 25
5	03301611	Safety cover	18	30835532	Socket Head Cap Screw M8 x 16 Din 912
6	03301612	Fish shute	19	30835533	Socket Head Cap Screw M8 x 20 Din 912
7	03303020	Fish shute	20	30835533	Socket Head Cap Screw M8 x 20
8	03303202	Infeed-Table	21	31800084	Washer M8 Din 9021 B
9	03303303	Infeed-plate	22	31800084	Washer M8 Din 9021 B
10	03303315	Head Shute	23	36020008	Hexagon Domed Cap Nuts
11	03303320	Safety cover	24	37400003	Handle
12	20600080	Nut M8x1,25	25	37460421	Ball handle
13	20600080	Nut M8 Din 934			

Fish back pressure



6

5

4

3

2

1

Fish back pressure

D

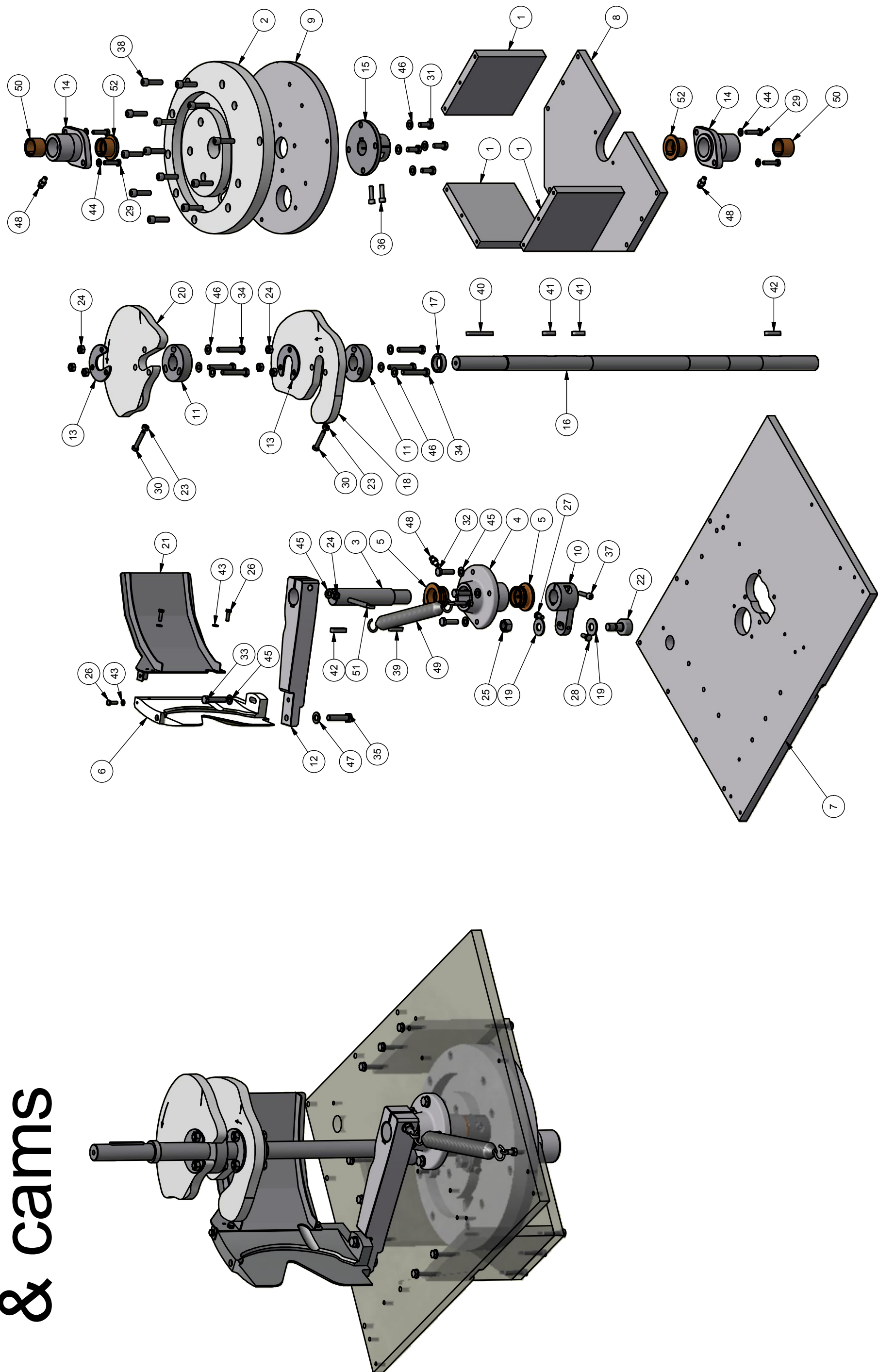
C

B

A

Item	Part no	Description	Item	Part no	Description
1	03101005	Collar bolt	29	30810840	Hex Head Bolt M8 x 40
2	03102010	Back plate holder	30	30810850	Hex Head Bolt M8 x 50
3	03102011	Backplate	31	30811020	Hex Head Bolt M10 x 20
4	03102201	Distance shaft	32	30811025	Hex Head Bolt M10 x 25
5	03102253	Stoper bar	33	30811040	Hex Head Bolt M10 x 40
6	03301401	Stoper	34	30811055	Hex Head Bolt M10 x 55
7	03301403	Stoper-Lifter	35	30811060	Hex Head Bolt M10 x 60
8	03301404	Fastener	36	30811080	Hex Head Bolt M10 x 80
9	03301405	Shaft	37	30831008	Locknut M8 Din 985
10	03302005	Arm	38	30835546	Socket Head Cap Screw M10 x 25 Din 912
11	03302008	Fastener	39	30835547	Socket Head Cap Screw M10 x 30 Din 912
12	03302501	Excenter	41	30835549	Socket Head Cap Screw M10 x 40 A2 Din 912
13	03302502	Insert	40	31800084	Washer M8 Din 9021 B
14	03302504	Roller	41	31800105	Washer M10 Din 9021 B
15	03302507	Plate	42	31800170	Washer M16 Din 9021 B
16	03302508	Stoper	43	31801017	Washer 16*50*3
17	03302509	Plate	44	33136205	Ball Bearing stainless
18	03302510	Bearing-Spacer	45	33431615	Du bushing
19	03302511	Spacer	46	33431620	Du bushing
20	03302602	Spring holder	47	33441617	Du collar bushing
21	03302604	Spring-Holder	48	33442008	Du collar bushing
22	03302605	Angle	49	33442512	Du collar bushing
23	03302606	Spring-Holder	50	38010066	Tension spring
24	1891910001	Adjusting bolt	53	38010105	Tension spring
25	20600080	*Varies*	51	39200205	Puffer
25	20600100	Nut M10x1,5	52	73121004	Washer 10,5*40*5
26	20600160	Nut M16x2	53	92202025	Collar bushing
27	30810825	Hex Head Bolt M8 x 25	54	03302603	Pawl plate
28	30810835	Hex Head Bolt M8 x 35	55	30870616	Csk Head Screws M6 x 16

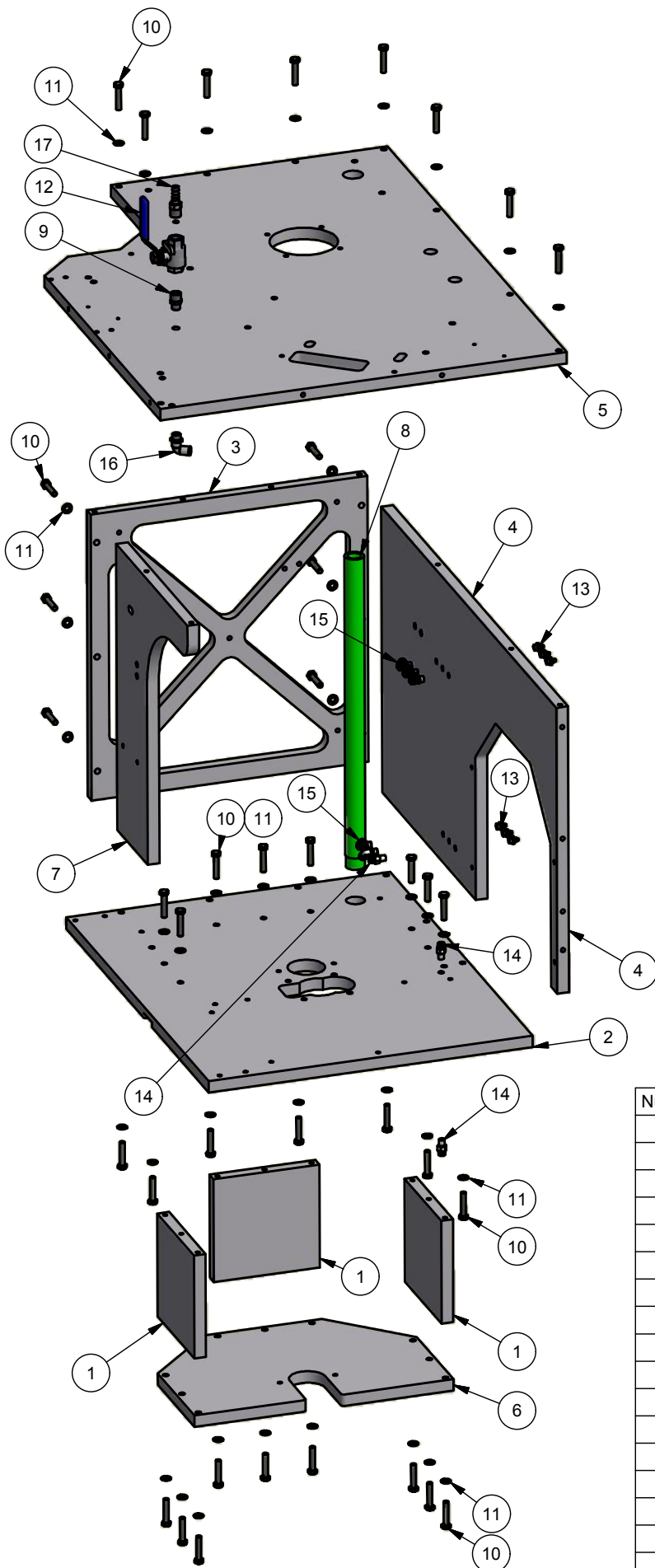
Fish transport & cams



Fish transport & cams

Item	Part No	Description	Item	Part No	Description	Item	Part No	Description
1	03101007	Support	19	03301603	Washer	37	30835536	Hex Socket Head Cap Screw M8 x 35 Din 912
2	03101008	Slott cam	20	03301917	Lever cam	38	30835549	Socket Head Cap Screw M10 x 40 A2 Din 912
3	03101012	Shaft	21	03303500	Safety plate	39	31308736	Key A 8 x 7 x 36 Din 6885 A
4	03101106	Flansh	22	1354-7	INA roller	40	31308770	Key A 8 x 7 x 70 Din 6885 A
5	03101107	Collar - Bushing	23	20600080	Nut M8 Din 934	41	31310832	Key 10 x 8 x 32
6	03101208	Transport fork	24	20600100	Nut M10x1,5	42	31310840	Key A 10 x 8 x 40 Din 6885 A
7	03301001	Bottom Plate	25	30600161A4	Nut M16 1,5	43	31800064	Washer M6 Din 9021 B
8	03301006	Bearing Plate	26	30810620	Hex Head Bolt M6 x 20	44	31800084	Washer M8 Din 9021 B
9	03301009	Cam disk	27	30810816	Hex Head Bolt M8 x 16 L/Hand	45	31800105	Washer M10 Din 9021 B
10	03301011	Clamp arm	28	30810820	Hex Head Bolt M8 x 20	46	31800105	Washer M10 Din 9021 B
11	03301501	Cam flange	29	30810835	Hex Head Bolt M8 x 35	47	31800130	Washer M12 Din 9021 B
12	03301207	Fork arm	30	30810845	Hex Head Bolt M8 x 45	48	34800309	Conector G1/8*6
13	03301500	Cam washer	31	30811025	Hex Head Bolt M10 x 25	49	38010105	Tension spring
14	03301505	Bearing-Flange	32	30811035	Hex Head Bolt M10 x 35	50	92143230	Bushing F2 32 X 30
15	03301510	Clamp flange	33	30811050	Hex Head Bolt M10 x 50	51	92502013	Spring pin
16	03301512	Shaft	34	30811060	Hex Head Bolt M10 x 60	52	03301406	Bushing F6 40 X 32
17	03301512a	Spacer	35	30811250	Hex Head Bolt M12 x 50	53	95502004	Spring pin
18	03301601	Spring cam	36	30835535	Hex Socket Head Cap Screw M8 x 30 Din 912			

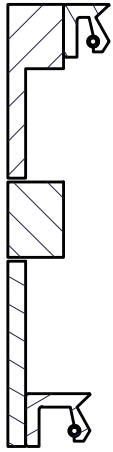
Machine Frame



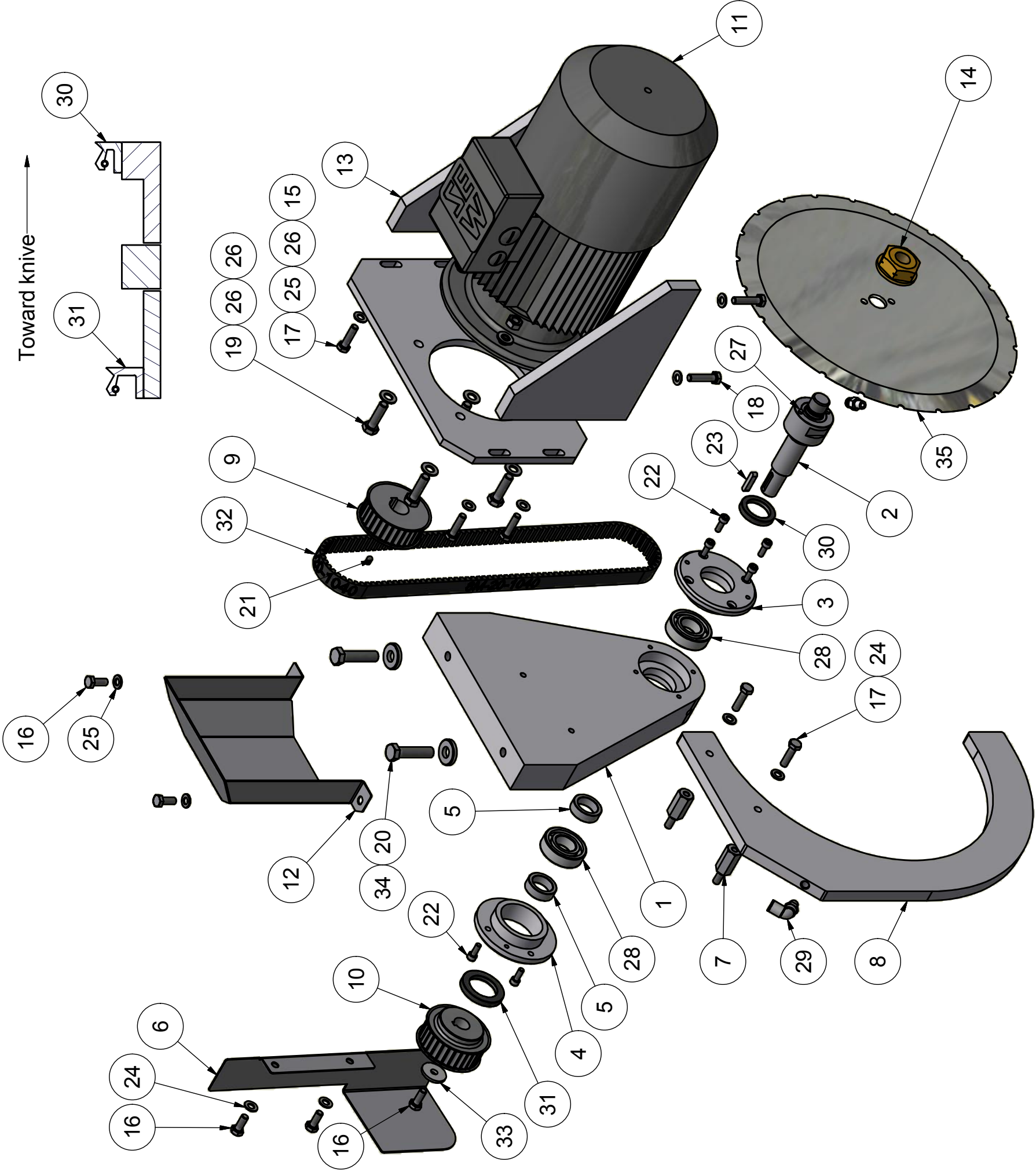
Number	Part No.	DESCRIPTION
1	03101007	Support
2	03301001	Bottom Plate
3	03301002	Side Plate
4	03301003	Back Plate
5	03301004	Top Plate
6	03301006	Bearing Plate
7	03301014	Front Plate
8	03301502	Cable tube
9	13400104	Redjuser G3/8-G1/4
10	30810840	Hex Head Bolt M8 x 40
11	31800084	Washer M8 Din 9021 B
12	34120110A2	Ball valve G3/8
13	34700251	Grease Nipple G1/8
14	34800309	Conector G1/8*6
15	34800324	Conector L G1/8 * 6mm
16	34973359	Conector 1/4"* 8mm
17	83140006	Hose conector

Knife Drive

Direction off Shaft Sealings

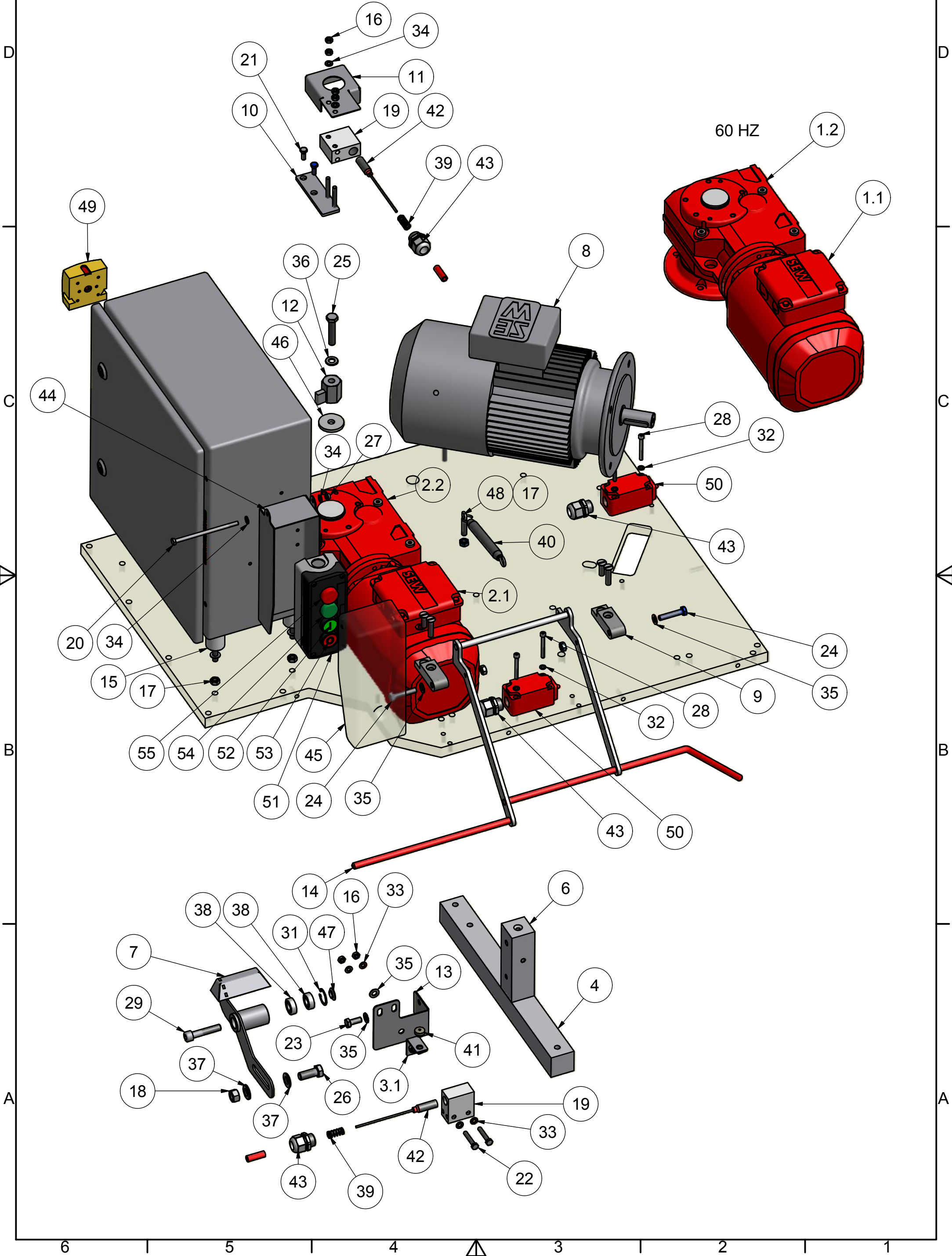


Toward knife



Item	Part No.	Description
1	03104001	Knife support
2	03104002	Knife shaft
3	03104003	Bearing-Flange
4	03104004	Bearing-Flange
5	03104005	Spacer
6	03104301	Belt Cover
7	03104401	Bolt
8	03104402	Kniveguard
9	03104901	Tooth belt pulley
10	03104902	Tooth belt pulley
11	03104903	Brakemotor 1.1 Kw
12	03301305	Cover
13	03304006	Support
14	4191600042B	Knife nut
15	20600100	Nut M10 Din 934
16	30810820	Hex Head Bolt M8 x 20
17	30810830	Hex Head Bolt M8 x 30
18	30810835	Hex Head Bolt M8 x 35
19	30811035	Hex Head Bolt M10 x 35
20	30811250	Hex Head Bolt M12 x 50
21	30834013	Hexagon Socket Set Screw
22	30835522	Socket Head Cap Screw M6 x 16
23	31306628	Key 6X6X28
24	31800084	Washer M8 Din 9021 B
25	31800084	Washer M8 Din 9021 B
26	31800105	Washer M10 Din 9021 B
27	32820512	Pinn
28	33136205	Ball Bearing stainless
29	34973358	Conector 1/8*8mm
30	35013001	Sealing ring 30X42X7
31	35013502	Sealing ring 35X52X07
32	37750121	Tooth belt 8M-20-1040
33	73121003	Washer 8,4*30*4
34	73131005	Washer
35	94010168	Circular knife

Electrical equipment



Electrical equipment

Number	Part No.	Description
1	03301900	Gear motor i31 60HZ
1.1	03101902	Gear motor
1.2	03101904	Gear i31 60 HZ
2	03101901	Gear motor i39 50HZ
2.1	03101902	Gear motor
2.2	03101903	Gear i39 50 HZ
3.1	03103207	Stoper
4	03103203	Bar
5	03103204	Bar
6	03103205	Bar
7	03103309	Activating arm
8	03104903	Brakemotor 1.1 Kw
9	03301514	Hinge
10	03303206	Holder
11	03303207	Cover
12	03303208	Activator
13	03303216	Holder
14	03303306	Safety arm
15	03308301	Spacer
16	20600060	Nut M6x1
17	20600080	Nut M8 Din 934
18	20600120	Nut M12x1,75
19	2350604002	Switch holder
20	30800611	Hex Head Bolt M6 x 110 A2 DIN 931-1
21	30810615	Hex Set Screw M6 x 16 Din 933
22	30810635	Hex Head Bolt M6 x 35
23	30810820	Hex Head Bolt M8 x 20
24	30810840	Hex Head Bolt M8 x 40 Din 933
25	30811055	Hex Head Bolt M10 x 55
26	30811230	Hex Head Bolt M12 x 30
27	30831006	Locknut M6 Din 985
28	30835518	Socket Head Cap Screw M5 x 45
29	30835551	Socket Head Cap Screw M10 x 50 Din 912
30	30870816	Csk Head Screws M8 x 16
31	31010261	Retaining ring
32	31800053	Washer M5 Din 9021 B
33	31800064	Washer M6 Din 9021 B
34	31800064	Washer M6 Din 125-1B
35	31800084	Washer M8 Din 9021 B
36	31800105	Washer M10 Din 9021 B
37	31800130	Washer M12 Din 9021 B
38	33136000	Roller Bearing
39	38000374	Compress Spring
40	38010066	Tension spring
41	39200205	Puffer
42	42303109	Sensor
43	43400603	Cable fittings
44	69308201	Cover
45	69308202	Clear cover
46	73121004	Washer 10,5*40*5
47	94000110	Washer
48	95502004	Spring pin
49	AB6071685	Main switch
50	SA3SE2 120-1B	Switch
51	XALD04	Buttons case
52	ZB5AP3S/ZENL1111	Button I
53	ZB5AP4S/ZENL1121	Button 0
54	ZB5AVQ33/ZALVB3	Green light lenze
55	ZB5AVQ43/ZALVB4	Red light lenze

Electrical Diagrams

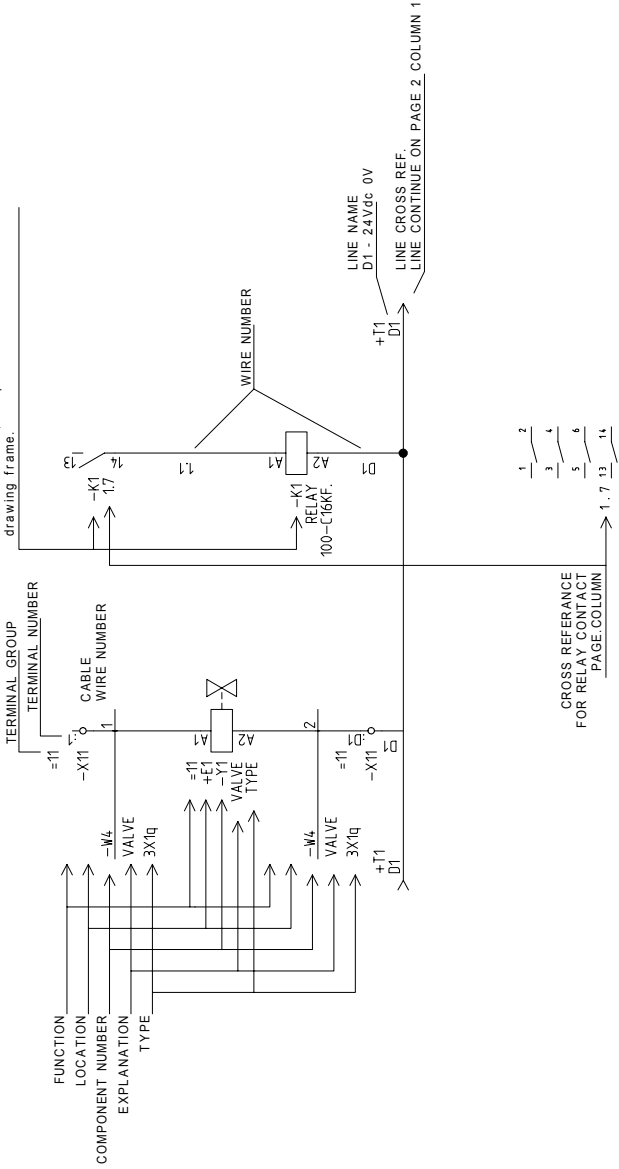
BAADER - ICELAND

HEADING MACHINE FOR WHITEFISH

BAADER IS-033

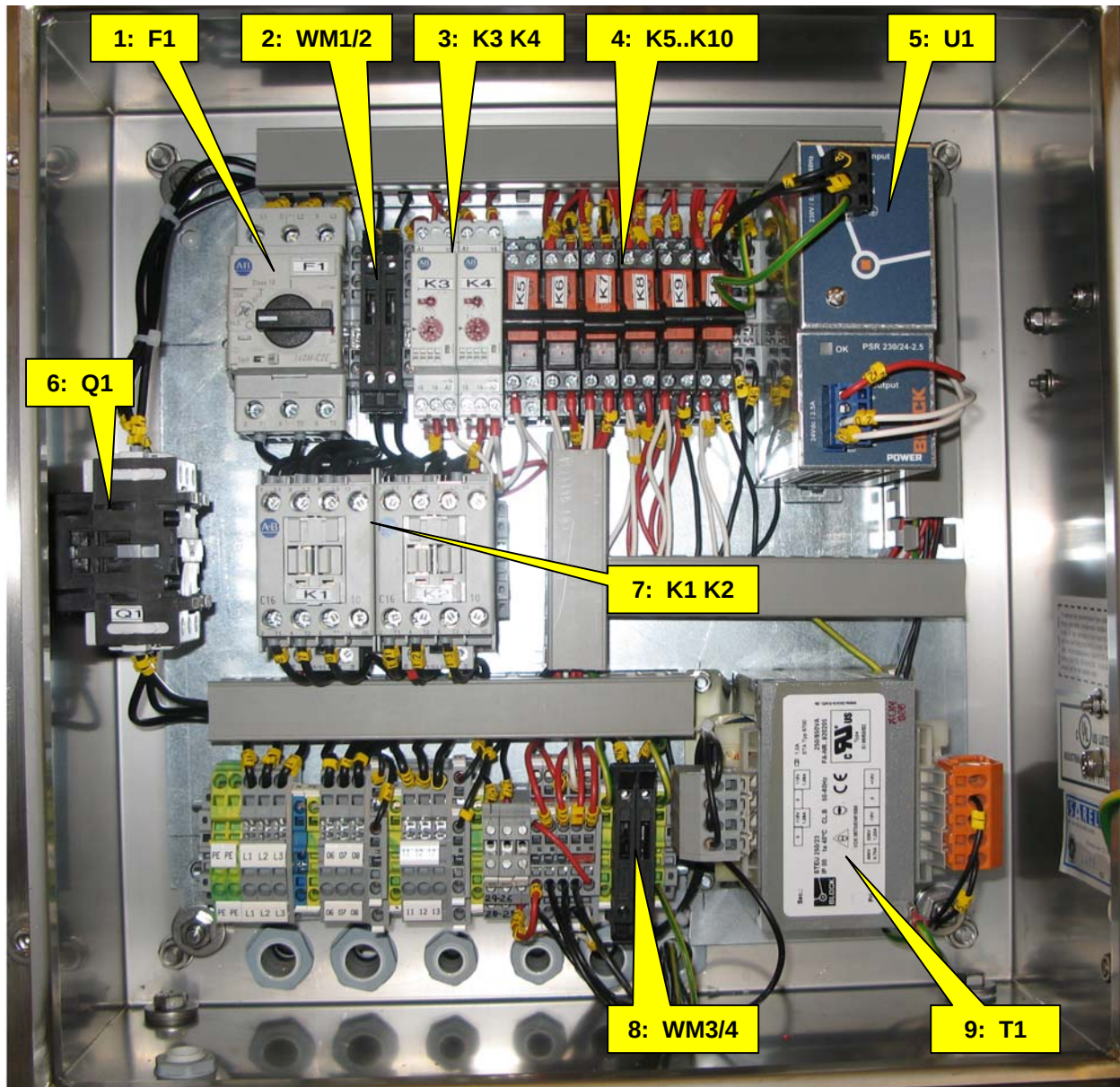
GENERAL EXPLANATION

In case there = (function) and or + (location) code are not shown, component take code number from drawing frame.



EQUIPMENT MARKING CODING:
= FUNCTION = (A1) NN2, (A1 SYSTEM GROOP), NN2 FUNCTION
+ LOCATION
- ELECTRICAL COMPONENT NUMBER

WIRE COLOR MARKING:
BLACK - 400V POWER WIRING L1, L2, L3.
BROWN - 230V CONTROL VOLTAGE, An
LIGHT BLUE - NEUTRAL, N
GRAY - 24Vac U, An
PURPLE - 24V ac V, Bn
RED - 24Vdc + Cn
WHITE - 24Vdc 0V Dn
ORANGE - EXTERNAL VOLTAGE



IS-033 Elecktrical parts

1	:	F1	=	AB6064675	Fuse
2	:	WM1/2	=	AMP1,25	Fuse
3	:	K3/4	=	AB6063040	Time relay
4	:	K5..K10	=	SALZX:RT4A4L24	Relay
5	:	U1	=	BLOK-PSR230/24-2,5	Transformer
6	:	Q1	=	AB6071685	Main switch
7	:	K1..K2	=	AB6061773	Relay
8	:	WM3/4	=	AMP1,25	Fuse
9	:	T1	=	BLOK-STU250/2x115	Transformer