holzkraft
Holzbearbeitungsmaschinen

Operating Instructions

Feed Units

- VSA 32, VSA 308, VSA 38 L, VSA 38 EL
- VSA 48 L, VSA 48 EL
- VSA 300, 300 DC, VSA 400, 400 DC

VSA-Serie

VSA-SERIES

Imprint

Produktidentifikation

Feed Unit	Item number
VSA 32 400 V	5111000
VSA 32 230 V	5111001
VSA 308	5113000
VSA 38 L	5114500
VSA 48 L	5115500
VSA 38 EL	5114501
VSA 48 EL	5115501
VSA 300	5116300
VSA 300 DC	5110303
VSA 400	5116400
VSA 400 DC	5110403

Manufacturer

Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

Fax: 0049 (0) 951 96555 - 55

E-Mail: info@holzkraft.de
Internet: www.holzkraft.de

Information about the operating instructions

Genuine operating instructions

Published: 29.10.2020
Version: 1.12
Language: English

Author: MS/ES

Copyright information

Content

1 Introduction

You have made an excellent choice in purchasing a HOLZKRAFT feed unit.

Carefully read the operating instructions prior to commissioning.

They describe correct commissioning, intended use and safe as well as efficient operation and maintenance of the feed unit.

The operating instructions form part of the feed unit. Always keep them at the feed unit´s location of use. Please also observe the local accident prevention regu-lations and general safety regulations for the use of the feed unit.

1.1 Copyright

The contents of these operating instructions are protected by copyright. Their use is permitted within the context of using the feed unit. Any further use shall not be permitted without written consent by the manufacturer.

To protect our products, we register our rights to our brands, patents and designs where possible in each individual case. We take strong action against any violation of our intellectual property.

1.2 Customer service

Please contact your specialist retailer if you have any questions regarding your feed unit or require any technical information. Your specialist retailer will be happy to support you with specialist advice and information.

Germany:
Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

Repair service:
Fax: 0049 (0) 951 96555-111
E-Mail: service@stuermer-maschinen.de
Internet: www.holzstar.de

Spare parts orders:
Fax: 0049 (0) 951 96555-119
E-Mail: ersatzteile@stuermer-maschinen.de

Please submit any information and experiences you make during application of the machine as these may be valuable for product improvements.

1.3 Limitation of liability

All data in this operation manual has been compiled on the basis of the state-of-the-art, valid standards and guidelines as well as our many years of expertise and experience.

The manufacturer shall not be liable for damage in the following cases:

- Failure to comply with the operation manual,
- Unintended use
- Deployment of untrained staff
- Conversions at one's own responsibility
- Technical modifications
- Use of unauthorised spare parts

The actual scope of delivery may deviate from the descriptions and illustrations in this document as a result of special variants, optional extras or recent, technical modifications.
The obligations defined in the supply con-tract shall apply in addition to the general terms and conditions and the manufacturer's general terms and conditions as well as the statutory regulations valid at the time of the conclusion of the contract.

2 Safety

This section provides an overview of all important safety packages for personal protection as well as safe and reliable operation. The individual sections contain additional, taskspecific safety information.

2.1 Legend of symbols

Safety instructions

Safety instructions in this operation manual have been highlighted with symbols. Safety instructions are indicated by signal terms that express the degree of risk involved.

DANGER!

This combination of symbol and signal term indicates a potentially dangerous situation which may cause death or serious injury if not averted.

WARNING!

This combination of symbol and signal term indicates a immediate dangerous situation which may cause death or serious injury if not averted.

ATTENTION!

This combination of symbol and signal term indicates a potentially hazardous situation which may cause minor or light injuries if it is not averted.

CAUTION!

This combination of symbol and signal word indicates a potentially dangerous situation. It will result in death or serious injury if not avoided.

NOTE!

This combination of symbol and signal term indicates a potentially dangerous situation which may cause material damage or harm the environment if it is not averted.

Tips and recommendations

Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for efficient and reliable operation.

Observe the safety information in these operating instructions to minimise the risk of personal injury as well as material damage and prevent hazardous situations.

2.2 Intended Use

The feed unit is used exclusively for feeding workpieces made of wood in connection with woodworking machines. The positioning and guidance of the workpiece must be carried out by the operator. Proper use also includes compliance with all the information in these instructions. Any use beyond the intended use or any other use is considered misuse.

WARNING!

Danger in case of misuse!

- Misuse of the feed unit can lead to dangerous situations.
- Never move several workpieces with the feed unit.

The user/operator and not the manufacturer shall be responsible for any resulting damage or injury of any kind.

Stürmer Maschinen GmbH assumes no liability for constructive and technical changes to the feed unit.

Claims of any kind for damage due to improper use are excluded.

2.3 General safety instructions

OPERATING STAFF

The feeding device may only be operated by an instructed and experienced person.

2.4 Residual risks and protective procedures

Even when used as intended, residual risks may still exist despite compliance with all relevant safety regulations due to the design determined by the intended use. Residual risks can be minimized if the "Safety Instructions" and the "Intended Use" as well as the operating instructions as a whole are observed. Consideration and caution reduce the risk of personal injury and damage.

2.5 Personal protective equipment

Personal protective equipment is intended to protect the health and safety of persons at work. Staff must wear the personal protective equipment indicated in individual sections of these operating instructions when carrying out the different tasks on the machine. The personal protective equipment is described in the following section:

Ear protection

The ear protection protects against hearing damage caused by noise.

Head protection

The industrial helmet protects the head against falling objects and bumping against fixed objects.

Safety goggles

The safety glasses are used to protect the eyes from flying parts.

Breathing protection

The protective mask is used to protect the respiratory tract against inhalation of dust particles.

Protective gloves

The protective gloves prevent the hands from sharp-edged components, as well as from friction, abrasions or deeper injuries.

Safety boots

The safety boots protect the feet from crushing, falling parts and slipping on slippery underground.

Protective clothes

The protective clothing is tight-fitting clothing with low tear resistance.

3 Technical Data

Model	VSA 32	VSA 308
Max. throat	300 mm	500 mm
Rollers	3	3
Roller diameter	80 mm	100 mm
Roller width	30 mm	50 mm
Spring stroke of rollers	12 mm	20 mm
Speeds [m/min.]	5/6,5/8/11	2,9/4,5/ 5,8/7,5/9/ 11,5/15/23
Motor output 50 Hz	0,18 kW/ 400 V	0,38 kW/ 400 V
Weight	34 kg	49 kg

Model	VSA 38 L	VSA 48 L
Max. throat	1050 mm	1050 mm
Rollers	3	4
Roller diameter	120 mm	120 mm
Roller width	60 mm	60 mm
Spring stroke of rollers	25 mm	25 mm
Speeds [m/min.]	2/4/5,5/ 6,7/11/13/ 16,5/33	2/4/5,5/ 6,7/11/13/ 16,5/33
Motor output 50 Hz	0,75 kW/ 400 V	0,75 kW/ 400 V
Weight	65 kg	70 kg

Model	VSA 38 EL	VSA 48 EL
Max. throat	1050 mm	1050 mm
Rollers	3	4
Roller diameter	120 mm	120 mm
Roller width	60 mm	60 mm
Spring stroke of rollers	25 mm	25 mm
Speeds [m/min.]	2/4/5/6/10/ 12/15/30	2/4/5/6/10/ 12/15/30
Motor output 50 Hz	0,75 kW/ 400 V	0,75 kW/ 400 V
Weight	65 kg	70 kg

Model	VSA 300	VSA 400
Max. throat	1050 mm	1050 mm
Rollers	3	4
Roller diameter	2x120 mm	2x120 mm
Roller width	25 mm	25 mm
Spring stroke of rollers	20 mm	20 mm
Speeds [m/min.]	2 - 17 m/min.	2 - 17 m/min.
Motor output 50 Hz	0,56 kW/ 400 V	0,56 kW/ 400 V
Weight	82 kg	91 kg

Model	VSA 300 DC	VSA 400 DC
Max. throat	1050 mm	1050 mm
Rollers	3	4
Roller diameter	120 mm	120 mm
Roller width	60 mm	60 mm
Spring stroke of rollers	18 mm	18 mm
Speeds [m/min.]	2 - 22 m/min.	2 - 22 m/min.
Motor output 50 Hz	0,375 kW/ 400 V	0,375 kW/ 400 V
Weight	64,5 kg	67,5 kg

4 Transport, packaging, storage

4.1 Delivery and transport

Delivery

Check the feed unit for visible transport damage upon delivery. In case of visible damage to the feed unit, immediately notify the carrier or your retailer.

Transport

Improper transport is accident-prone and can cause damage or malfunctions for which we do not grant any liability or guarantee.

Transport the scope of delivery secured against shifting or tilting with a sufficiently dimensioned industrial truck to the installation site.

WARNING!

Severe or fatal injuries may occur if parts of the machine tumble or fall down from the forklift truck, pallet truck or from the transport vehicle. Follow the instructions and information on the transport box.

Note the total weight of the machine. The weight of the machine is indicated in the "Technical data" of the machine. When the machine is unpacked, the weight of the machine can also be read on the rating plate.

Only use transport devices and load suspension gear that can hold the total weight of the machine.

WARNING!

The use of unstable lifting and load suspension equipment that might break under load can cause severe injuries or even death. Check that the lifting and load suspension gear has sufficient load-bearing capacity and that it is in perfect condition.

Observe the accident prevention regulations issued by your Employers Liability Insurance Association or other competent supervisory authority, responsible for your company.

Fasten the loads properly.

General risks during internal transport

WARNING: DANGER OF TIPPING

The device may be lifted unsecured by a maximum of 2cm.

Employees must be outside the danger zone, the reach of loads.
Warn employees and, if necessary, advise employees of the hazard.

Devices may only be transported by authorized and qualified persons. Act responsibly during transport and always consider the consequences. Refrain from daring and risky actions.

Gradients and descents (e.g. driveways, ramps and the like) are particularly dangerous. If such passages are unavoidable, special caution is required.

Before starting the transport check the transport route for possible danger points, unevenness and disturban-ces as well as for sufficient strength and load capacity.

Danger points, unevenness and disturbance points must be inspected before transport. The removal of danger spots, disturbances and unevenness at the time of transport by other employees leads to considerable dangers.

Careful planning of internal transport is therefore essential.

4.2 Packaging

All packaging materials and packaging aids used in the machine are recyclable and must always be recycled.

Cardboard packaging components must be shredded for collection of waste paper.

The foils are made of polyethylene (PE) and the upholstery parts made of polystyrene (PS). These substances must be handed over to a recycling center or to the responsible disposal company.

4.3 Storage

Step 1: Disconnect the mains plug.

Step 2: Clean the feed unit carefully, oil the moving parts and store the device in a dry, clean and frost-free environment.

5 Assembly

5.1 Fitting the tripod

(Models VSA 300 and VSA 400)

ATTENTION!

The feed unit is to heavy! Never carry out the assembly alone.

A) Fixing position

Step 1: Height and side adjustment of the tripod (See Fig. 1).

Step 2: See instructions for mounting the feed unit on a bench milling machine, sliding table saw or planer-thicknesser.

B) Attaching the fixing holes

A self-adhesive 1:1 drilling template is included in the scope of delivery for convenient and accurate drilling. (Fig. 2).

Step 1: Unpack the tripod socket. Use it to check the accuracy of the drilling template and the correct position on the table.

Step 2: For mounting you need 4x M12 hexagon screws and corresponding washers. (Not included)

LENGTH OF BOLTS = tripod base (thickness) + worktable (thickness)

Step 3: Make sure that there are no grooves or struts under the table of the machine in the way.

Step 4: Now use the **self-adhesive drilling template** to mark the fixing holes on the table.

Step 5: Drill the holes.

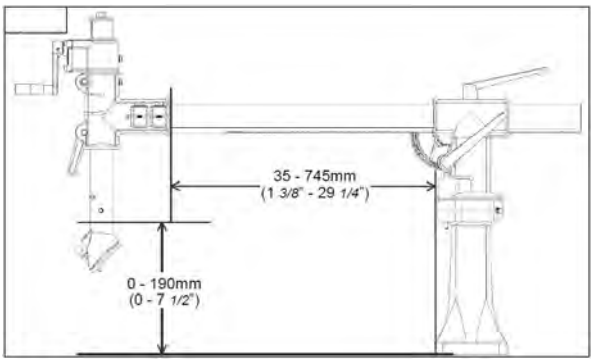


Fig. 1: Tripod

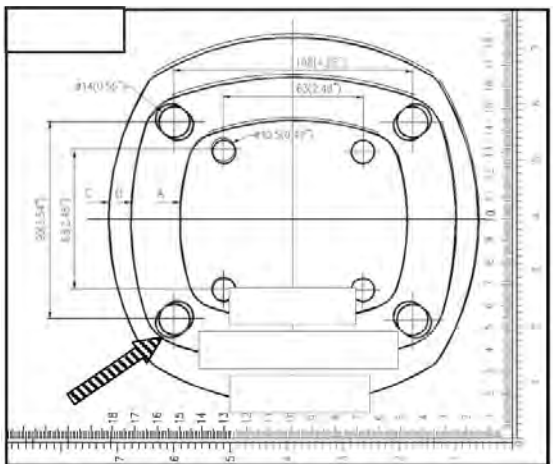


Fig. 2: Self-adhesive drilling template

5.2 Position of the feed unit

Find a suitable position for attaching the feed unit to the machine. We recommend a position on the rear side of the workpiece exit, see figure 3.

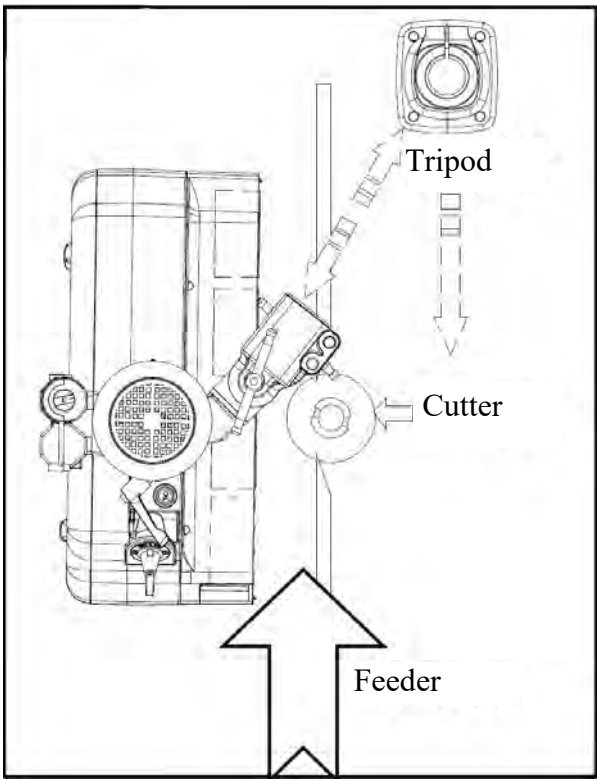


Fig. 3: Position

For small worktables, it is necessary to attach an extension kit, see illustration below. Attention: Observe machine balance!

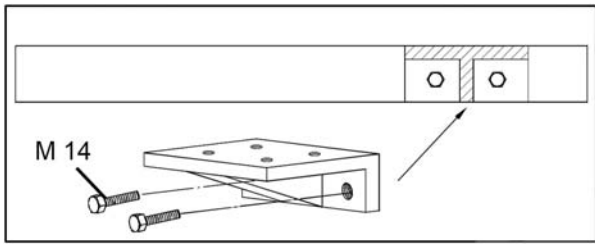


Fig. 4: Mounting of extension set (Models VSA 38 EL, 48 EL)

A self-adhesive drilling template is included in the scope of delivery to simplify the assembly of the feed unit.

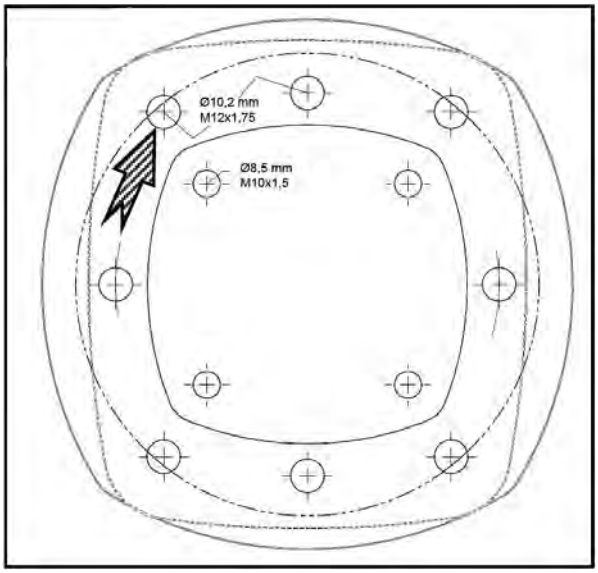


Fig. 5: Drilling template for the assembly of the feed unit

Step 1: Clean the worktable and glue the drilling template to the desired position.

Step 2: Mark the drill holes and drill holes with 10.2 mm drills.

Step 3: Cut M12 thread.

5.3 Assembly of the feed unit

Models VSA 32, 308, 38 EL, 48 EL:

ATTENTION!

The feed unit is to heavy! Never carry out the assembly alone.

Step 1: Fasten the tripod to the machine with the 4 M12 screws (Fig 6 A).

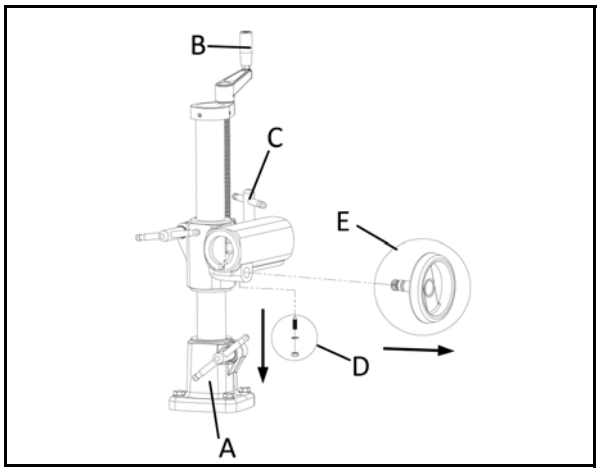


Fig. 6: Fitting the tripod

Step 2: Mount the handle (Pos. B, Fig. 6).

Step 3: Loosen C and D (Fig. 6) and remove handwheel (Pos. E, Fig. 6).

Step 4: Insert the arm (Pos. A, Fig. 7) in the guide, insert the handwheel (Pos. B, Fig. 7), insert the screw Pos.C in Pos. D (Fig. 7).

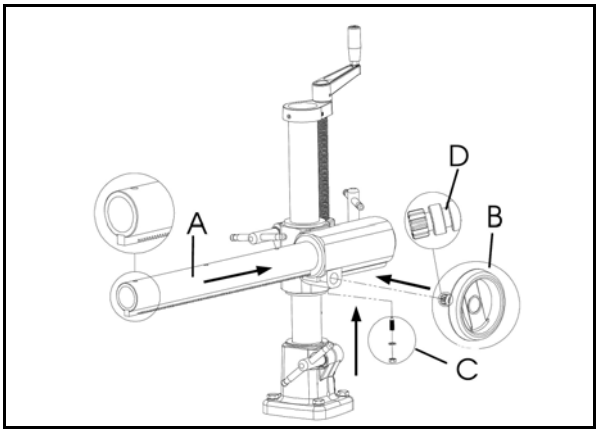


Fig. 7: Fitting the tripod

Step 5: Fasten the guide and turn the handwheel several times to check that it moves smoothly (Fig. 8).

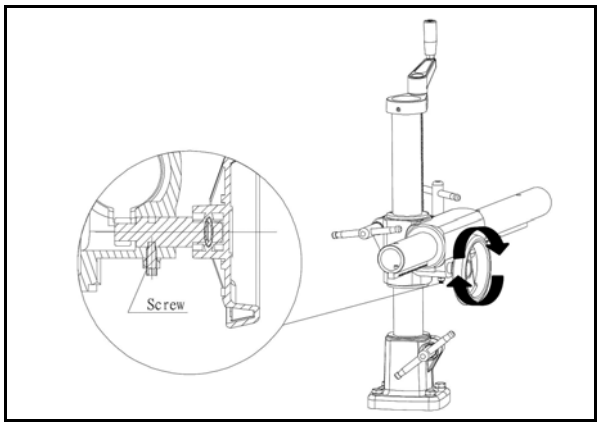


Fig. 8: Fitting the tripod

Step 6: Attach the guide (Pos. A, Fig. 9) to the arm, make sure it is correctly aligned (Fig. 9C), and secure with the two screws (Pos. B, Fig. B). **Attention:** The alignment is correct when the worktable and the rollers of the feed unit are parallel.

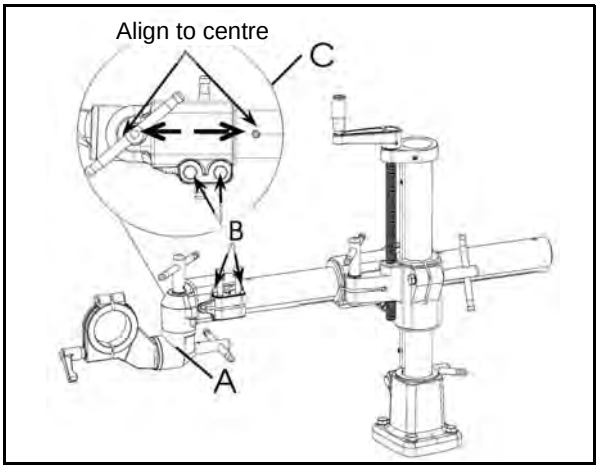


Fig. 9: Fitting the tripod

Step 7: Release lever (Pos. A, Fig. 10) and turn clamp (Pos. B, Fig. 10) to the left so that it is parallel to the work surface. **Attention:** The parallel alignment of the motor clamp ensures parallelism of the rollers and the worktable.

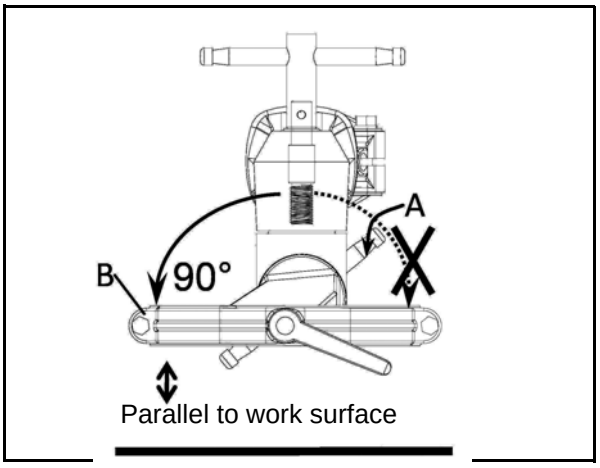


Fig. 10: Mounting of motor

Step 8: Loosen 4 screws on the motor and turn the motor 90° clockwise (Fig. 11).

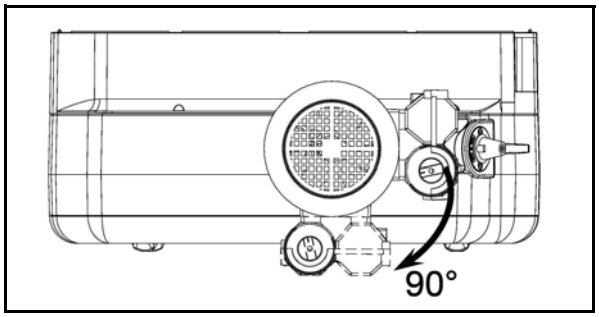


Fig. 11: Mounting of motor

Step 9: Tighten the motor screws.

Step 10: Loosen screw A and lever B (Fig. 12) and remove motor clamp (Pos. C, Fig. 12).

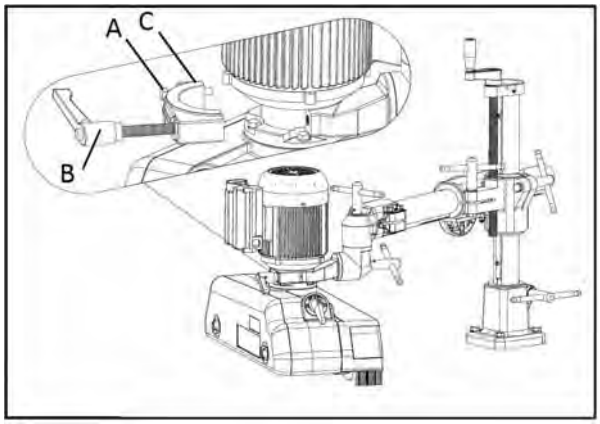


Fig. 12: Assembly of roller body

Step 11: Place the roller body on the clamp and secure with the clamp (Pos. A and B, Fig. 12).
The motor clamp opening must be parallel to the housing (Fig. 13).
When tightening the screw and lever, make sure there is equal clearance on both sides.

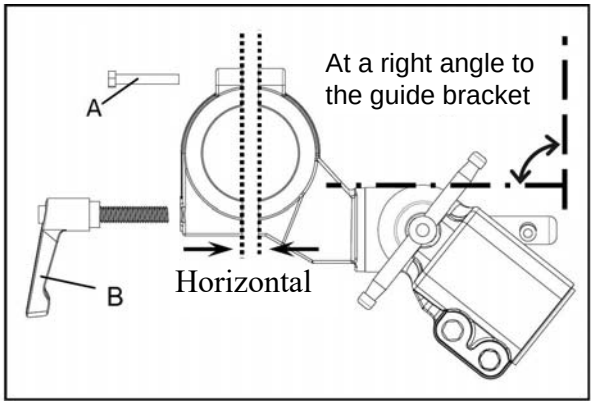


Fig. 13: Alignment

Step 12: Check alignment for parallelism by opening the clamping levers if necessary, adjusting the position of the parts and determining the clamping lever.

NOTE!

To ensure that the workpiece makes safe contact with the stop, the distance between the stop and the first roller must be approx. 3 - 5 mm greater than the distance of the last roller.

Step 13: Position the rollers: Place the roller body on the worktable. The horizontal position of the rollers can be slightly varied by the individual suspensions.

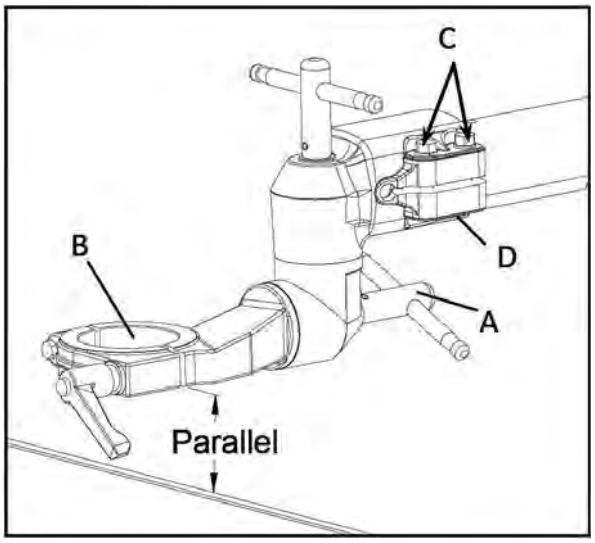
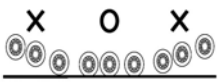


Fig. 14: Setting of parallelism



Release lever (Pos. A, Fig. 14), adjust angle of Pos. B (Fig. 14) parallel to worktable.

Loosen the screws (Pos. C, Fig. 14), adjust arm guide (Pos. D, Fig. 14).

Step 14: When assembly and alignment are complete tighten all screws and levers.

Models VSA 300 and VSA 400:

Step 1: Fasten the tripod base and the cross holder (Pos. 1, Fig. 15) to the table as described under „Fitting the tripod“.

Step 2: Attach the handwheel (Pos. 5, Fig. 15) and the handle (Pos. 6, Fig. 15). Do not tighten the handle.

Step 3: Slide the horizontal boom tube (Pos. 7, Fig. 15) into the cross bracket joint (Pos. 2, Fig. 15) and secure with the handle (Pos. 6, Fig. 15).

Step 4: Remove the hex nut (Pos. 3, Fig. 15). This nut is for easier and safer assembly only.

Step 5: Loosen the self-locking nut (Pos. 17, Fig. 15).

Step 6: Adjust the horizontal boom tube (Pos. 7, Fig. 15). Retighten the nut (Pos. 17, Fig. 15) and fit the handle (Pos. 4, Fig. 15) (replaces nut (Pos. 3, Fig. 15)).

Step 7: Fit the holding device (Pos. 8, Fig. 15) onto the horizontal boom tube (Pos. 7, Fig. 15).

ATTENTION!

Align the vertical holding device **90°** to the table surface. Then tighten the nut (Pos. 9, Fig, 15) firmly.

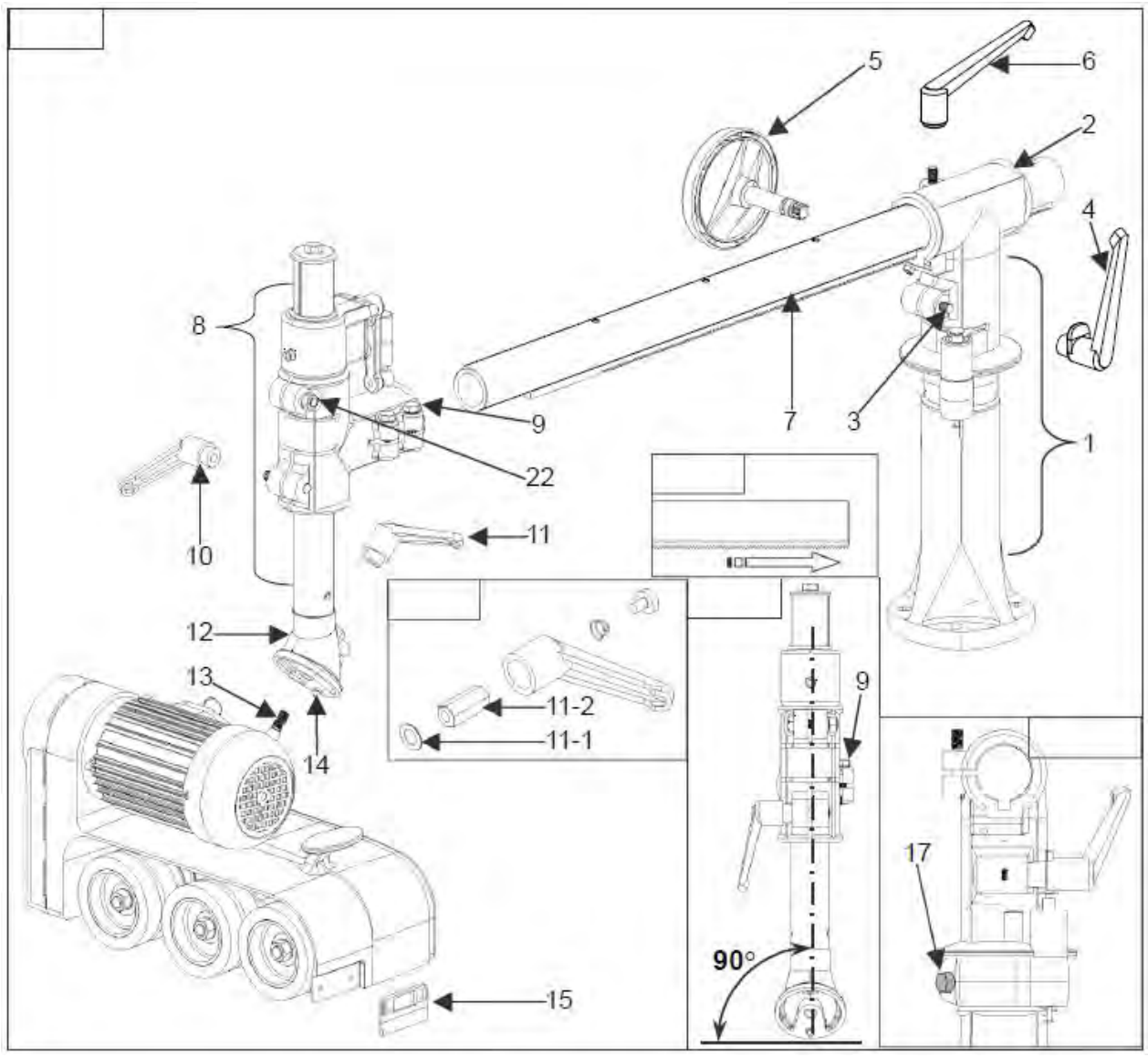


Fig. 15: Assembly, Models VSA 300 and VSA 400

NOTE!

Pay attention to the alignment of the tripod!

Step 8: Assemble the handle (Pos. 11, Fig. 15).

Step 9: Assemble Sue the feed to the joint from the vertical boom tube (Pos. 12, Fig. 15), using the threaded rod (Pos. 13, Fig. 15) and spring button (Pos. 14, Fig. 15). Press the feed against the joint (Pos. 12, Fig. 15) while attaching the handle (Pos. 11, Fig. 15) with the washer.

Step 10: Attach the handle (Pos. 11, Fig. 15) and tighten firmly.

Step 11: Mount the brushes.

Step 12: Loosen the handle (Pos. 10, Fig. 15) and turn the feed horizontally with the rollers pointing towards the stop.

NOTE!

Screw (Pos. 22, Fig. 15) is pre-tensioned. The pressure is required for rotation!

Step 13: Tighten all screws and handles. **Pressure screw (Pos. 22, Fig. 15) is not tightened!**

Models VSA 300 DC and VSA 400 DC:

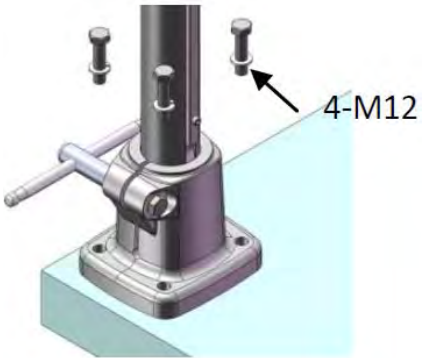


Fig. 16: Screw the tripod socket to the machine

Step 1: Fasten the tripod socket to the machine with the 4 M12 screws.

Fig. 17: Mounting the handle

Step 2: Secure the handle.

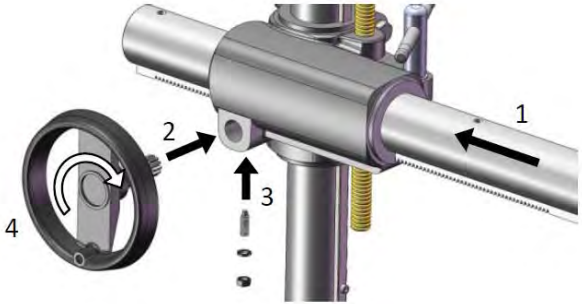


Fig. 18: Secure the handle

Step 3: Insert the arm into the guide (Pos.1, Fig. 18), insert the handwheel (Pos. 4, Fig. 18) and fix with screw (Pos. 3, Fig. 18). Mount the guide on the stand support. Turn the handwheel several times to check that it moves smoothly.

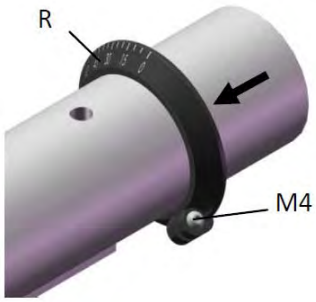


Fig. 19: Mounting the adjustment ring

Step 4: Attach the adjustment ring R to the arm and secure it temporarily with screw M4 (Fig. 19).

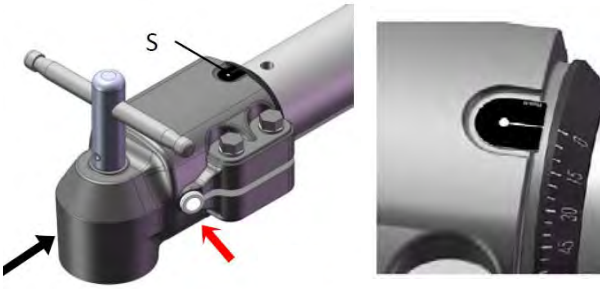


Fig. 20: Cable bushing and sticker

Step 5: Pass the motor connection cable through the opening on the arm (arrow, Fig. 20). Apply the sticker S to the arm, first clean the adhesive area with alcohol. Align the adjustment ring with the zero line, then tighten screw M4.

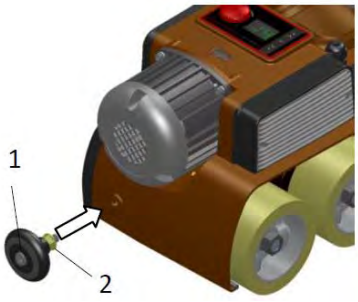


Fig. 21: Mounting the handle

Step 6: Mount the handle on the feed unit (Fig. 21). Do not tighten too much, the handle should rotating.

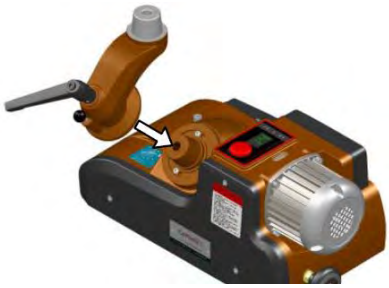


Fig. 22: Mount the joint on the feed unit

Step 7: Mount the joint on the feed unit (Fig. 22).

Fig. 23: Mounting the feed unit on the tripod

Step 8: Place the feed unit flat on the work surface, lower the tripod arm to the connection on the joint and fix the feed unit to the tripod with the locking lever (Fig. 23).

Step 9: If present, screw the base of the 90° swivel device to the top of the feed unit and clamp the swivel device to the cone.

Fix the feed unit to the stand with the locking lever (Fig. 24).

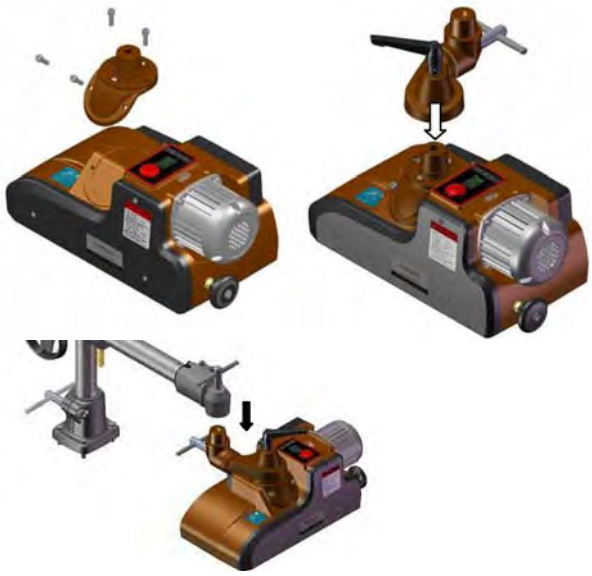


Fig. 24: Mount 90° swivel device (if available)

6 Electrical connection

DANGER!

Risk of fatal injury due to electric shock!

Contact with live components may result in fatal injury. Switched-on electrical components can make uncontrolled movements and lead to serious injuries.

ATTENTION!

All work on the electrical installation may only be carried out by a qualified electrician.

WARNING!

Make sure that your power connection conforms to the motor specification! (See motor cover)!

WARNING!

Make sure that the ON / OFF switch is in the "OFF" position!

The feed unit is a device which works in combination with a machine, e.g. table saw, milling machine, planer etc.. The feed unit may only be used with a machine whose electrical connection complies with the local regulations and the national regulations.

NOTE!

According to DIN EN 848-1, only machines with a table passage diameter of more than 190 mm require a table socket for a feed unitt.

The electrical connection of the feed unit to the machine must ensure that the main switch and the emergency stop switch of the machine also control the power supply of the feed unit. There must also be overload protection and a fuse against voltage drop.

Make sure that

- the power connection has the same characteristics (voltage, mains frequency, phase position) as the motor,
- the mains voltage of 400 V (16 A fuse) is used,
- the direction of rotation of the rollers is correct.

Step 1: Connect the feed unit and check the grounding.

Step 2: Briefly switch the motor on and off again.

Step 3: Check the direction of rotation of the rollers as they run out. If the direction of rotation is incorrect, check the electrical connection and correct if necessary.

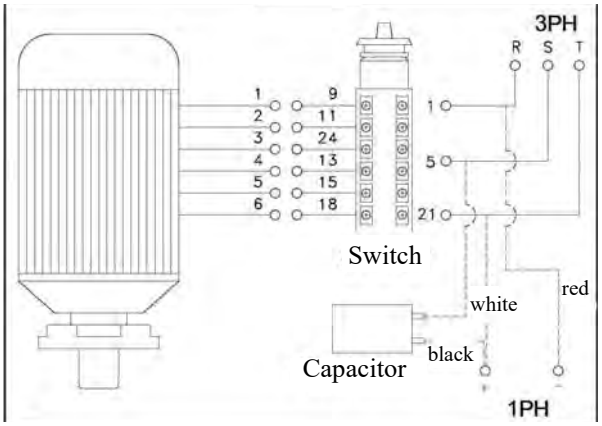


Fig. 25: Electrical connection

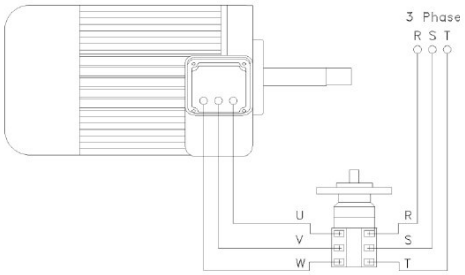


Fig. 26: Electrical connection, models VSA 300 and VSA 400

7 Settings of the feed unit

7.1 Checking the function

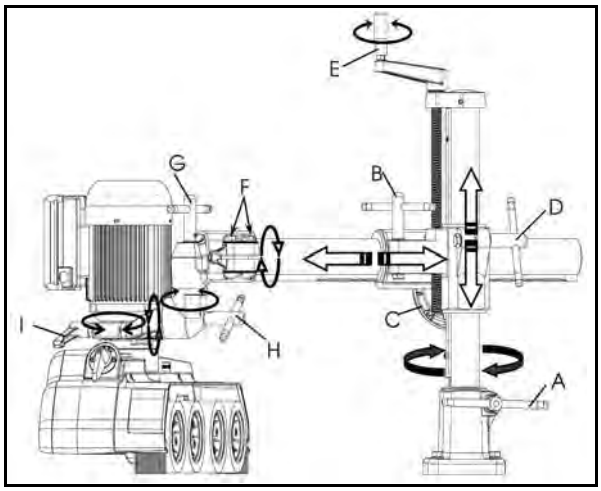


Fig. 27: Overview of functions

CAUTION!

Before carrying out the function check, disconnect the feed unit from the mains supply!

7.1.1 Setting the tripod

Movement: Rotation of the boom tube .

Checking: Loosen the lever (Pos. A, Fig. 27) and moving the complete boom arm.

Movement: Extension of the boom arm

Checking: Loosen lever (Pos. B, Fig. 27) and turn handwheel (Pos. C, Fig. 27).

Movement: Height adjustment of boom tube

Checking: Loosen lever (Pos. D, Fig. 27) and turn crank (Pos. E, Fig. 27).

7.1.2 Setting the feed unit

Movement: Arm holder

Checking: Loosen screws (Pos. F, Fig. 27) and turn

Movement: Angle adjustment arm, ...ngle adjustment

Checking: Opening the lever (Pos. G, Fig. 27) and turn, secure with lever (Pos. H, Fig. 27)

Movement: Vertical motor clamp

Checking: Opening the lever (Pos. H, Fig. 27) and turn feed vertically

Movement: Motor clamp

Checking: Opening the lever (Pos. I, Fig. 27) and rotate horizontally.

7.2 Memo handle (models VSA 300 and 400)

This special device makes it possible to swivel the feed arm away when the position is set (maintenance, replacement of rollers and tools, etc.) and then immediately swivel it back to the starting position without having to readjust the exact position.

Step 1: **Opening:** Move the memo handle (Pos. 4, Fig. 28) to position 18, fig. 28.

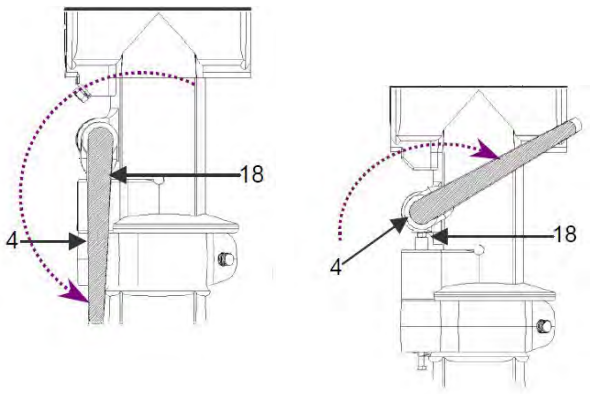


Fig. 28: Memo handle

Step 2: The feed arm can then be swivelled.

Step 3: Rotate the memo handle (Pos. 4, Fig. 28) away from position 18, fig. 28 and swivel the feed to the starting position.

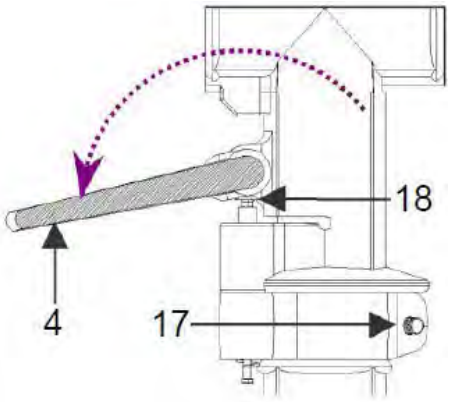


Fig. 29: Memo handle

Step 4: Tighten the memo handle (Pos. 4, Fig. 29) firmly.

7.3 Swivel head (models VSA 300 and 400)

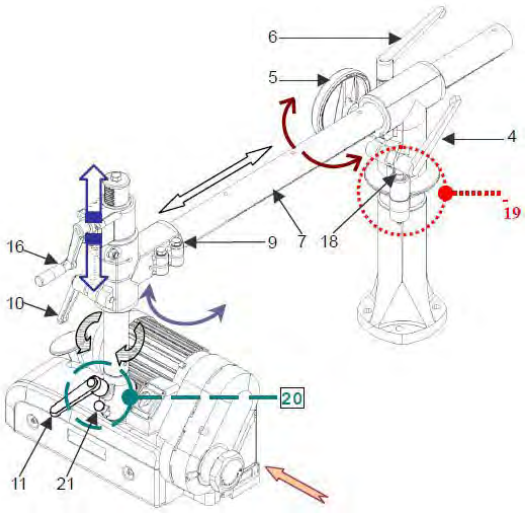


Fig. 30: Setting the swivel head

This special device makes it possible to easily change the feed from the straight feed position to a lateral position.

Step 1: Carry out steps as described in the chapter „Memo handle“, then the feed arm can be swivelled.

Step 2: Loosen the handle to approx. 90°.

Step 3: Pull the clamping pin (Pos. 21, Fig. 30) and turn the feed.

Step 4: Release the clamping pin (Pos. 21, Fig. 30) as soon as the feed is turned.

Step 5: As soon as the position is reached, the feed engages. Retighten the clamping lever (Pos.11, Fig. 30).

7.4 Horizontally alignment of rollers

Step 1: Loosen lever (Pos. B, Fig. 27) and turn crank (Pos. E, Fig. 27) until just before the table. Loosen screws F slightly until the feed can be turned.

Step 2: Move the feed to the table by turning the crank. By moving the crank independently, the feed rollers are parallel to the table.

Step 3: Tighten the screws again.

7.5 Adjustment of the horizontal guide

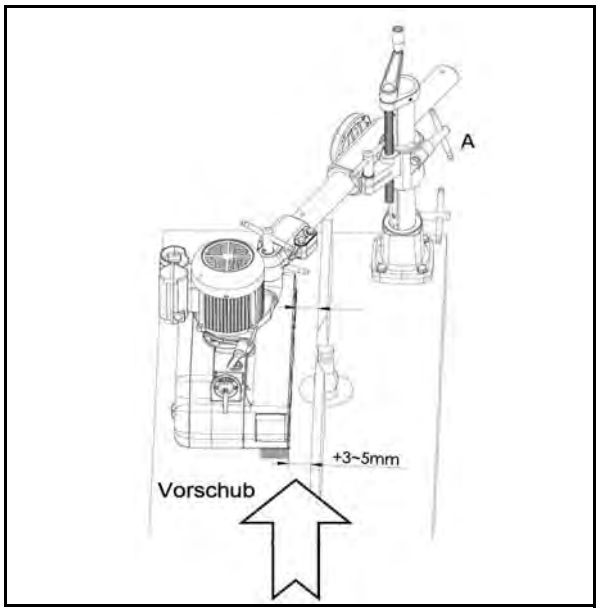


Fig. 31: Adjustment of the horizontal guide

Step 1: After horizontal alignment of the rollers, adjust the height of the tripod. Release the lever (Pos. D, Fig. 27) and crank the feed to the desired height.

NOTE!

To ensure that the workpiece makes safe contact with the stop, the distance between the stop and the first roller must be approx. 3 - 5 mm greater than the distance of the last roller.

Step 2: Adjust the parallelism or tolerance by opening lever (Pos. I, Fig. 27).

Step 3: Tighten all levers firmly.

7.6 Adjustment for lateral guide

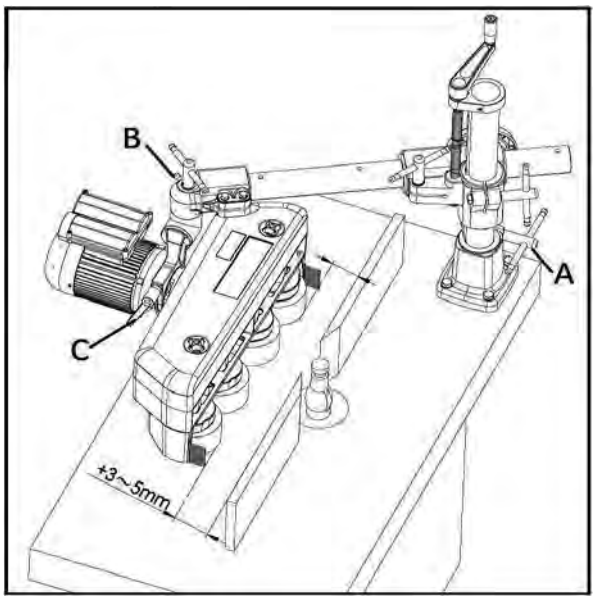


Fig. 32: Adjustment lever

CAUTION!

Displacement of the machine center of gravity.
Note the weight of the feeding unit!
The machine can tilt.

Step 1: Loosen lever (Pos. A, Fig. 32), then turn the complete tripod away from the table and tighten lever (Pos. A, Fig. 32) again.

Step 2: Loosen the lever (Pos. B, Fig. 32). Turn the feed by 90° to the bottom. The feed rollers must point to the right and the motor to the left. Tighten lever (Pos. B, Fig. 32) again.

Step 3: Loosen the lever (Pos. C, Fig. 32) and turn the feed by 90°. The switch box is facing upwards. Tighten lever (Pos. C, Fig. 32) again.

NOTE!

To ensure that the workpiece makes safe contact with the stop, the distance between the stop and the first roller must be approx. 3 - 5 mm greater than the distance of the last roller.

Step 4: Loosen the lever (Pos. A, Fig. 32) and set the feed to the stop jaws. Adjust the tolerance of 3-5 mm of the front roller.

Step 5: Check again that all levers are tight.

7.7 Adjusting the angle of inclination (models VSA 300 DC and VSA 400 DC)

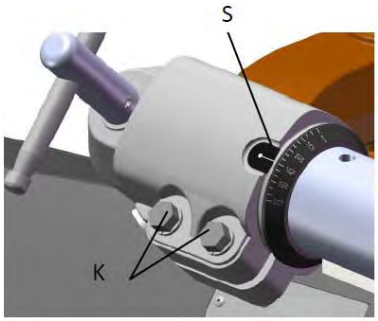


Fig. 33: Adjusting the angle of inclination

Step 1: Release the clamping lever for the boom arm and swivel the feed unit off the table. Loosen the screws (Pos. K, Fig. 33), set the desired inclination angle (Pos. S, Fig. 33) and tighten the screws (Pos. K, Fig. 33) again.

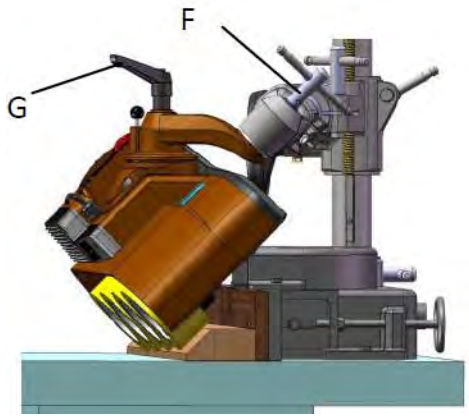


Fig. 34: Feed with angle of inclination

Step 2: Release the clamping levers (Pos. F and Pos. G, Fig. 34), pull the memo lever and swing the feed unit back into the horizontal position. Then swivel the feed unit back into the set working position, check that all rollers are aligned with the workpiece and tighten all clamping levers.

ATTENTION!

Small deviations from the angle can occur due to different work table sizes. If necessary, adjust accordingly.

Step 3: The workpiece must be stable at the stop during feeding. The rollers should be at a small angle to the stop to ensure sufficient contact pressure (Fig. 35).

NOTE!

The memo lever ensures the standard angle setting. After the first adjustment a new adjustment is not necessary.

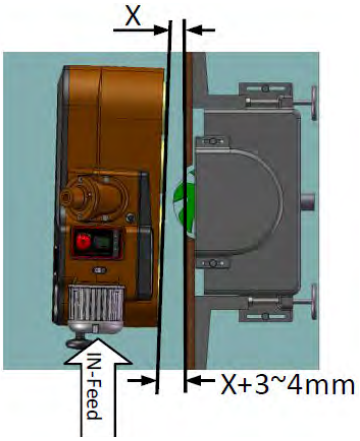


Fig. 35: Angle of inclination for contact pressure of the workpiece at the stop

7.8 Reset counter

Step 1: Align the feed unit with the table (Pos. 1, Fig. 36) and tighten all clamping levers.

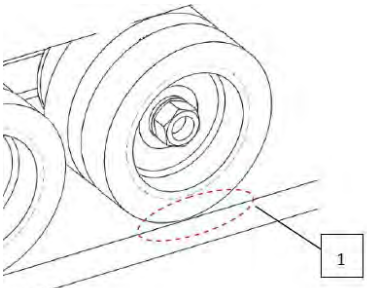


Fig. 36: Reset counter

Step 2: Loosen the screw (Pos. 2, Fig. 37).

Step 3: Set the counter to zero (Pos. 3, Fig. 37).

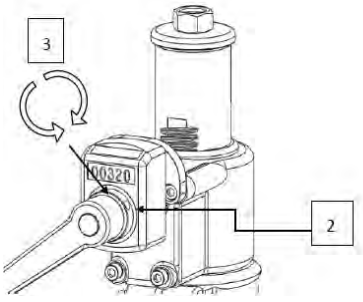


Fig. 37: Reset counter

Step 4: Tighten the screw (Pos. 4, Fig. 38), now the counter is reset to zero.

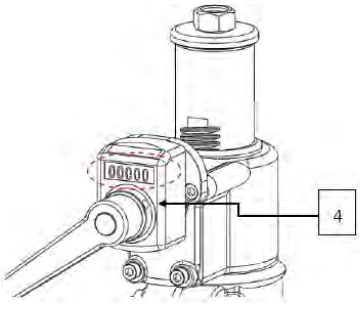


Fig. 38: Reset counter

8 Setting the feed speed

The right feed speed is very important for good quality and efficiency.

The correct feed speed depends on the speed of the machine, the sharpness of the blades, the hardness and thickness of the material to be removed.

Pay attention to the noise of the cutting tool during the machining process and observe the workpiece.

The cutting tool must always be kept in good condition.

8.1 Modify of the feed speed

Step 1: Stop the machine.

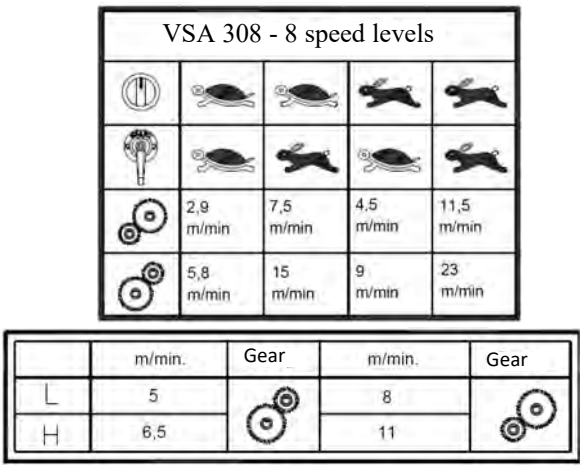
Step 2: Modify the feed speed.

Step 3: Start the machine again.

Speed switch

Spindle Speed (Feeding speed / Cutters / Thickness of work piece)	6000 R.P.M.			8000 R.P.M.			10000 R.P.M.		
6 mm	9	15	23	9	15	23	15	23	23
10 mm	8	12	15	8	15	15	12	15	15
20 mm	5	9	12	6	12	12	8	12	12
25 mm	3	5	6	5	6	8	6	8	9

Model VSA 308:



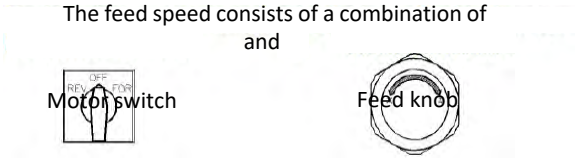
Models VSA 38 EL and 48 EL:

Model	Speed	Standard			
				25T / 40T	40T / 25T
VSA 38EL/ VSA 48EL	8		2	4	5	6
			15	30	10	12

Optional			
21T / 44T		44T / 21T	
1.5	3	5	7
10	14	22	44

Fig. 39: Speed chart (speed in m/min)

Models VSA 300 and VSA 400:



NOTE!

The feed knob cannot be moved when the motor switch is set to „OFF“!

NOTE!

For a good transition between clutch and gear, turn the rollers a few turns before changing the feed speed.

Models VSA 300 DC and VSA 400 DC:

Control panel

Fig. 40: Control panel VSA 300 DC and VSA 400 DC

1. Rotary knob for setting the feed rate.
Range 2 m/min. to 22 m/min.

ON/OFF/PAUSE switch for motor: Press the knob.

2. Button for feed direction: To change the feed direction during operation, press the button twice. The opposite feed direction is set at the lowest feed rate. To return to the original feed setting, press button (Pos. 1, Fig. 40) twice.

3. SET key: To define/select a defined feed rate.

4. Button for feed direction. Function same as button 2.

Error message display:

E1: Motor does not start.
Check whether anything has become jammed in the feed unit.

E2: The temperature of the actuator is too high.

E3: The temperature of the motor is too high.

8.2 Gearbox setting

ATTENTION!

Before working on the device, disconnect the device from the power supply!

Step 1: Unscrew the two screws from the gear housing (Fig. 41) and remove the gear cover.

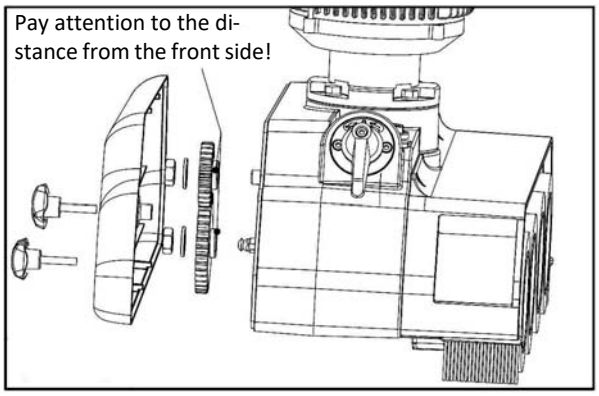


Fig. 41: Changing the gear wheel

Step 2: Unscrew the hexagon nuts to change the gear wheels.

ATTENTION!

The front side of the gears must face the housing (Fig. 41), otherwise the drive could be damaged.

9 Replacing the rollers

ATTENTION!

Before working on the device, disconnect the device from the power supply!!

Step 1: Unscrew the two bolts from the rim (Fig. 42).

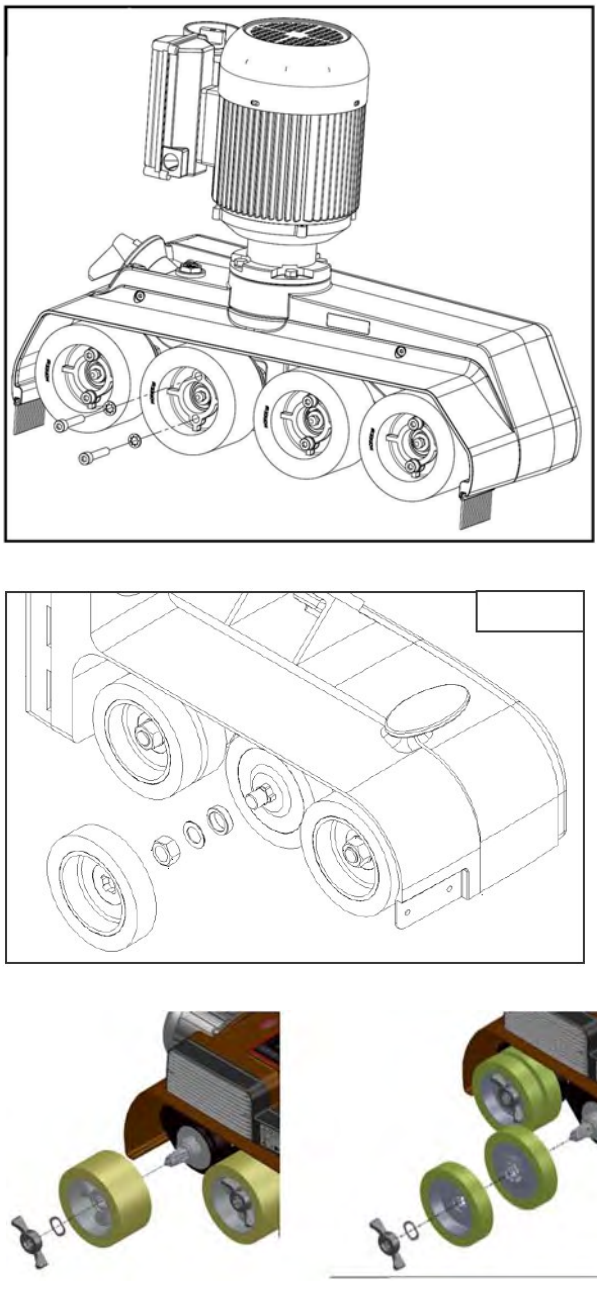


Fig. 42: Replacement of rolls, middle figure: Models VSA 300 and VSA 400, bottom figure: Models VSA 300 DC and VSA 400 DC

Step 2: Remove the old roller and replace it with the new one.

Step 3: Tighten the roller with the two screws or the nut.

Step 4: After a test run, check all screws and nuts for tightness!

NOTE!

Occasional "interchanging of the rollers" can increase the service life.

Using for different roll setups

Removal of the outer roller if tools with larger diameters are used (Fig. 43).

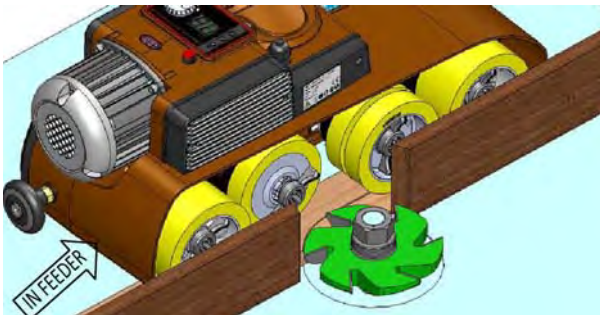


Fig. 43: Operation with removed outer roller

Removal of the inner roller to prevent collision with the saw blade during circular sawing (Fig. 44).

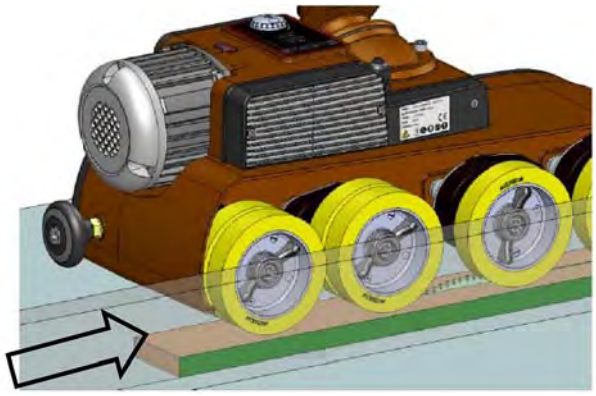


Fig. 44: Operation with removed inner roller

10 Operation

DANGER!

Risk of fatal injury due to electric shock!

Contact with live components may result in fatal injury. Switched-on electrical components can make uncontrolled movements and lead to serious injuries.

- Disconnect the mains plug before making any adjustments to the machine.

WARNING!

Risk of fatal injury!

There is a danger to life for the operator and other persons if they do not comply with the following rules.

- The operator must not work when under the influence of alcohol, drugs or medication.
- The operator must not work if he is overtired or under illnesses affecting his concentration.

CAUTION!

Risk of crushing!

Improper work on the feed unit may result in injury to fingers and hands.

- Never reach into the working area of the feed unit during operation.
- Keep hands away from the feed unit.

ATTENTION!

- The working area must be level and tread-proof and ensure sufficient freedom of movement.
- The working area must be adequately illuminated.
- Before leaving the machine, the power supply must be interrupted!

Wear hearing protection!

Use protective goggles!

Use protective gloves!

Wear safety boots!

Wear protective clothing!

Wear head protection!

10.1Operation with milling machine

Figure 45 shows the position of the rollers relative to the milling cutter (left) and the position of the feed unit relative to the workpiece stop (right).

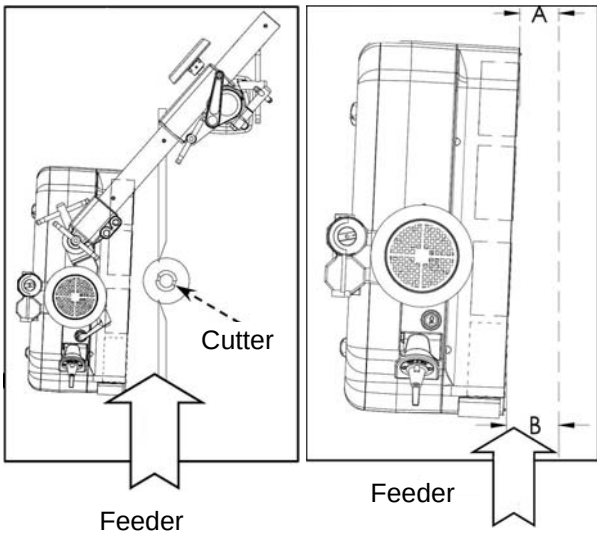


Fig. 45: Position of the feed unit to the milling machine

At the workpiece output side (Pos. A, Fig. 45 right) the distance to the stop should be approx. 5 mm smaller than at the workpiece input side (Pos. B, Fig. 45 right). At a larger angle, the service life of the rollers is reduced.

The correct contact pressure of the rollers to the workpiece (Fig. 46) is achieved when the rollers deflect approx. 3-4 mm.

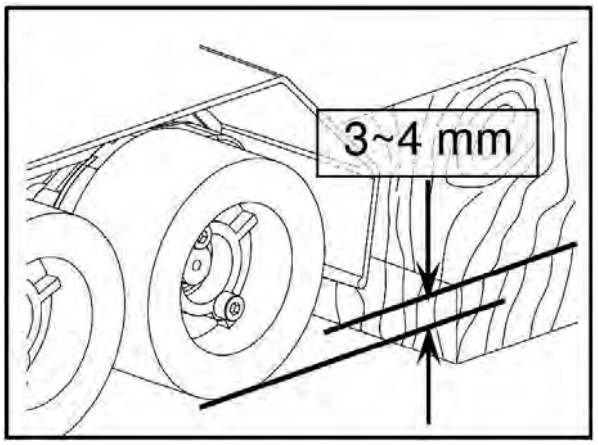


Fig. 46: Contact pressure of the rollers to the workpiece

10.2Operation with table saw

Figure 47 shows the position of the rollers relative to the saw blade (left) and the position of the feed unit relative to the workpiece stop (right).

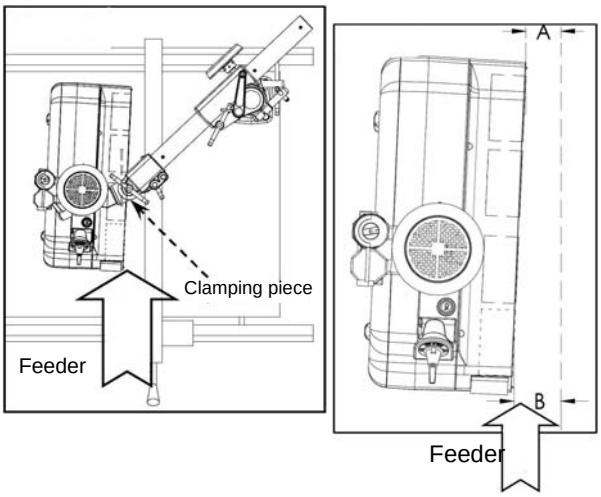


Fig. 47: Position of the feed unit to the table saw

At the workpiece output side (Pos. A, Fig. 47 right) the distance to the stop should be approx. 1 mm smaller than at the workpiece input side (Pos. B, Fig. 47 right). At a larger angle, the service life of the rollers is reduced.

The correct contact pressure of the rollers to the workpiece is achieved when the rollers deflect approx. 3-4 mm (Fig. 46).

10.3Operation with planer-thicknesser

Figure 48 shows the position of the rollers relative to the planer blade (left) and the position of the feed unit relative to the workpiece stop (right).

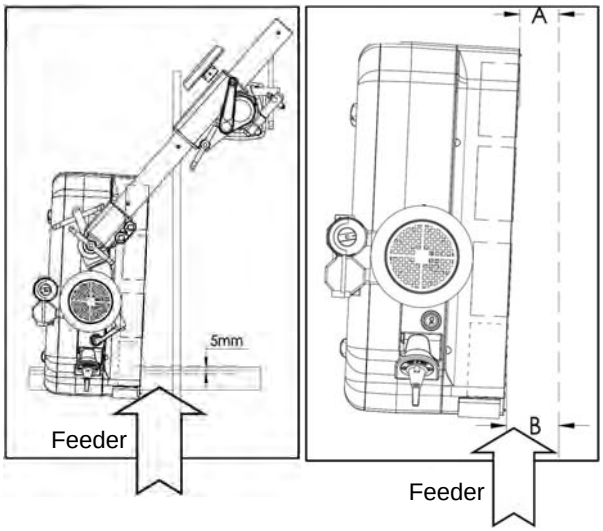


Fig. 48: Position of the feed unit to the planer-thicknesser

The contact pressure of the rollers to the workpiece should be as low as possible.

11 Care and maintenance

DANGER!

Risk of fatal injury due to electric shock!

Contact with live components may result in fatal injury. Switched-on electrical components can make uncontrolled movements and lead to serious injuries.

- Disconnect the mains plug before starting cleaning and maintenance work.

The feed unit must always be kept in a clean condition.

Use protective gloves!

NOTE

Never use harsh cleaning solvents for any cleaning work. This can lead to damage or destruction of the device.

11.1Cleaning

After each use, remove the material waste (sawdust, material dust) from the feed unit with a compressed air gun.

11.2Maintenance

Rollers

Lubricate the roller bearings with a grease gun every 200 operating hours or 30 days. (Grease # 2: Shell - Alvania Grease R2 or similar).

Gear wheels and chains

Lubricate regularly with grease. (Grease # 2: Shell - Alvania Grease R2 or similar).

Gearbox

Oil change for the first time after 200 hours (30 days) (Fig. 49). Then change oil every 1000 hours (6 months). (Oil: MOBIL Mobilgear 630, Shell/Omala 150 BP, Energol GR-XP 150, or similar).

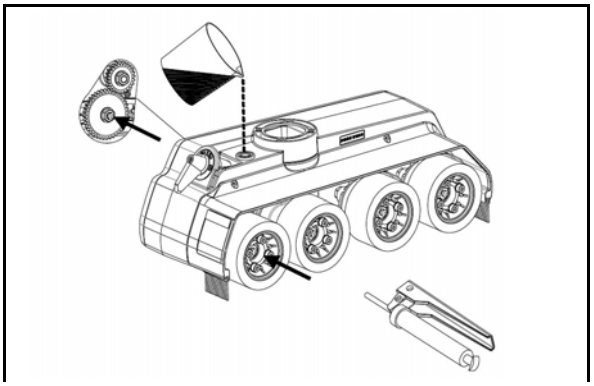


Fig. 49: Maintenance

Change the oil:

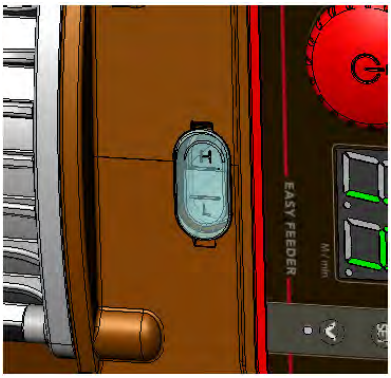


Fig. 50: Oil level indicator VSA 300 DC and VSA 400 DC

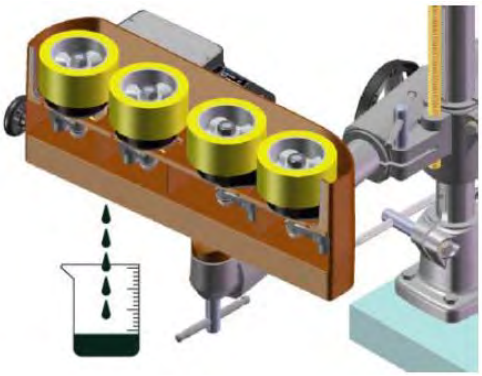


Fig. 51: Discharge the oil

Step 1: Remove the feed unit from the worktable, turn it around, remove the oil cap and drain off the oil.

Step 2: Turn the feed unit upwards again and fill in the oil (200 ml, or as indicated on the maintenance label; Example - Fig. 52). Then put on the oil cap.

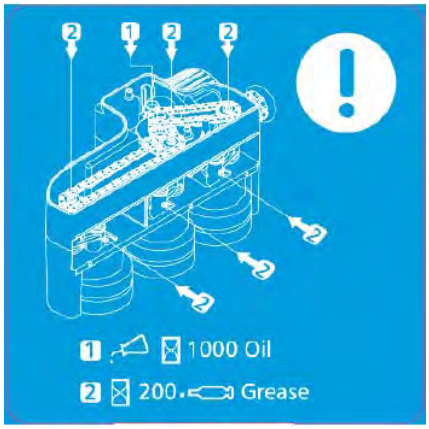


Fig. 52: Information on oil change and lubrication

12 Disposal, recycling of old equipment

In your own interests and in the interest of the environment, please ensure that all components of the machine are disposed of in the proper and approved way.

12.1Decommission

Disused equipment must be taken out of service immediately in order to avoid later misuse and endangering the environment or people.

Step 1: Remove all environmentally hazardous fluids from the old unit.

Step 2: If necessary, dismantle the machine into manageable and usable assemblies and components.

Step 3: Guide the machine components and operating materials to the appropriate disposal routes.

12.2Disposal of electrical equipment

Used and disposable electrical equipment and accessories are not household waste. Please note that electrical appliances contain a variety of recyclable materials as well as environmentally harmful components.

Make sure that these components are disposed of separately and properly.

If electrical equipment and supplies get into landfills or dumps, harmful substances can penetrate the groundwater and enter the food chain, exposing your health and well-being and that of everyone else to serious and threatening danger. When replacing old equipment and accessories with new ones, the dealer is required by law to accept your old equipment and accessories for environmentally sound disposal free of charge. Disposal of old and disposable materials shall be in accordance with and in accordance with local regulations.

If necessary, the help of a specialized waste management company can be used for the treatment.

In case of doubt, please contact your municipal waste disposal.

12.3Disposal of lubricants

The disposal instructions for the lubricants used are provided by the lubricant manufacturer. If necessary, ask for the product-specific data sheets.

13 Spare parts

DANGER!

Risk of injury by using wrong spare parts!

Dangers may result for the user and damages as well as malfunctions may be caused by using wrong or damaged spare parts.

- Only use original spare parts of the manufacturer or spare parts admitted by the manufacturer.
- Always contact the manufacturer in case of uncertainties.

Loss of warranty

The manufacturer's warranty will become null and void if non admitted spare parts are being used.

13.1Spare parts order

The spare parts can be obtained from the dealer or directly from the manufacturer. The contact details are in chapter 1.2 Customer Service.

Specify the following key data for inquiries or when ordering spare parts:

- Machine type
- Item number
- Position number
- Construction year
- Amount
- Desired shipping method (post, freight, sea, air, express)
- Delivery address

Spare parts orders without above given information can not be considered. If the shipping method is missing, shipping will be at the discretion of the supplier. Information on the machine type, article number and year of manufacture can be found on the nameplate, which is attached to the machine.

Example

The motor for feed unit VSA 400 must be ordered. This is identified in the spare parts drawing 1 with the position number 38M3.

When ordering spare parts, send a copy of the spare part drawing (1) with the marked component (motor) and marked position number (38M3) to the authorised dealer or to the spare parts department and provide the following information:

Type of machine:	VSA 400
Item number:	5116400
Drawing number:	1
Position number:	38M3

13.2Spare parts drawings

The following drawings should help to identify necessary spare parts in case of service. To order, send a copy of the parts drawing with the marked components to your authorized dealer.

13.2.1 Spare parts drawings Feed Unit VSA 32

Spare parts drawing 1

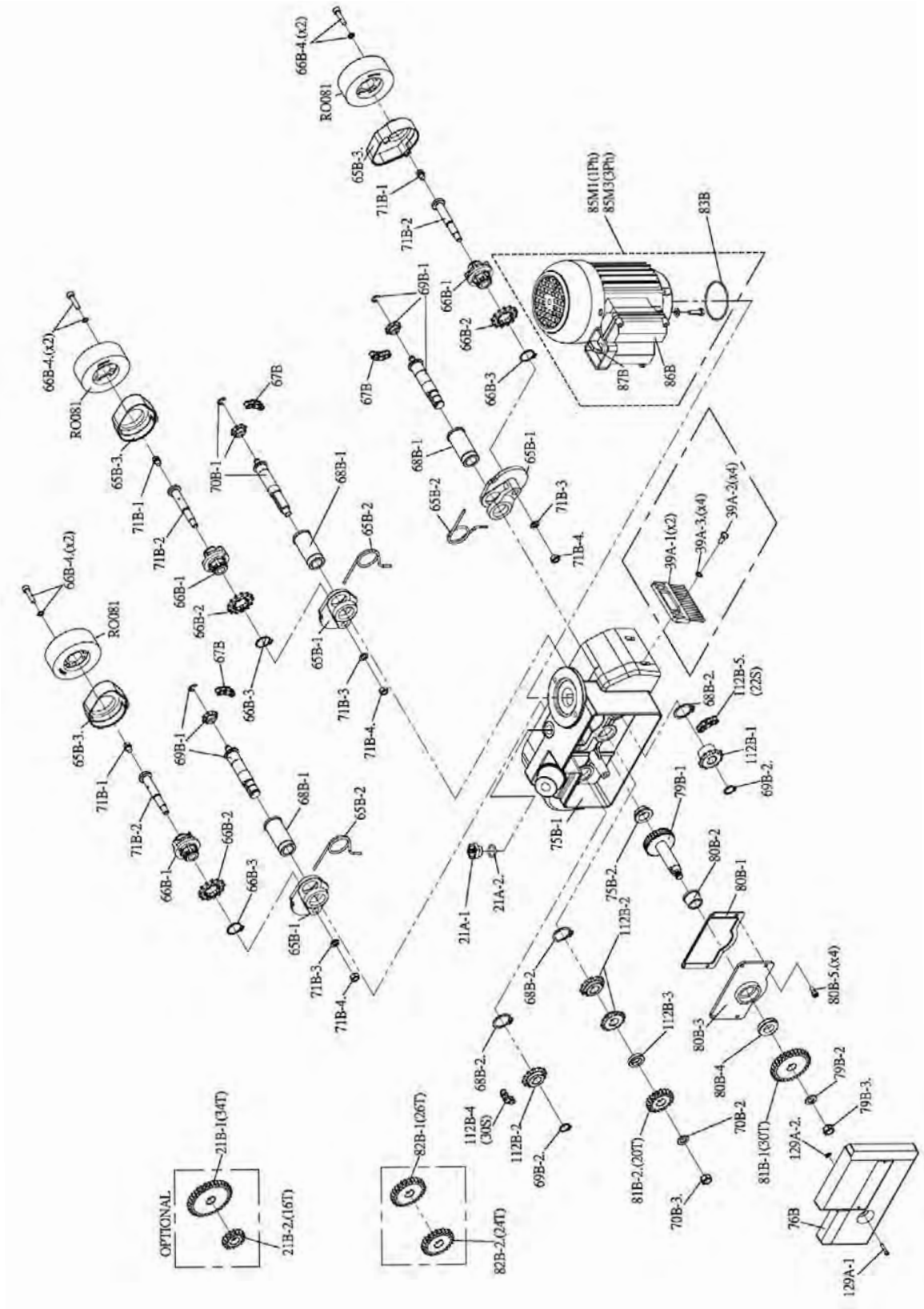


Fig. 53: Spare parts drawing 1 - feed unit VSA 32

Spare parts drawing 2: Tripod of feed unit VSA 3

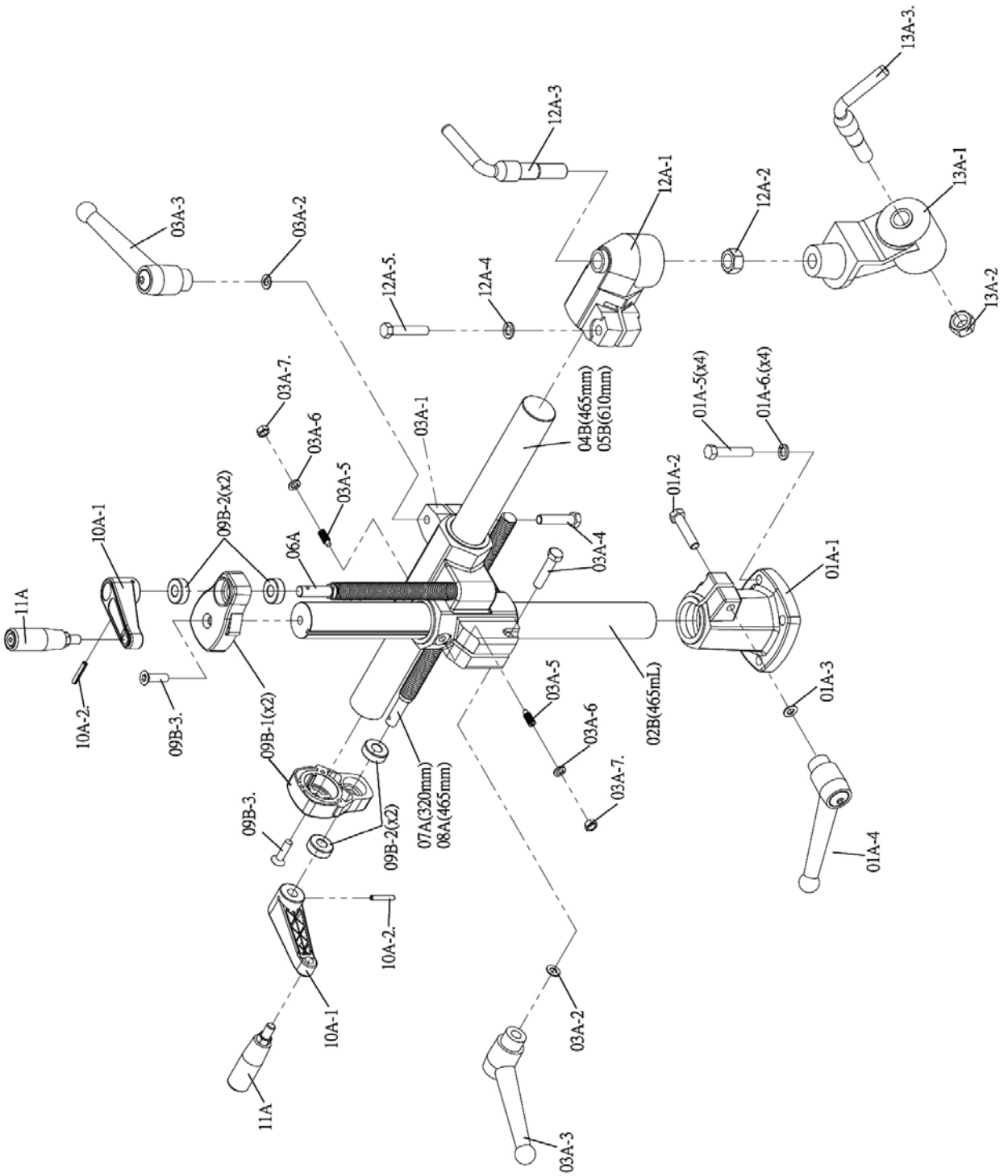


Fig. 54: Spare parts drawing 2 - tripod of feed unit VSA 3

13.2.2 Spare parts drawings Feed Unit VSA 308

Spare parts drawing 1

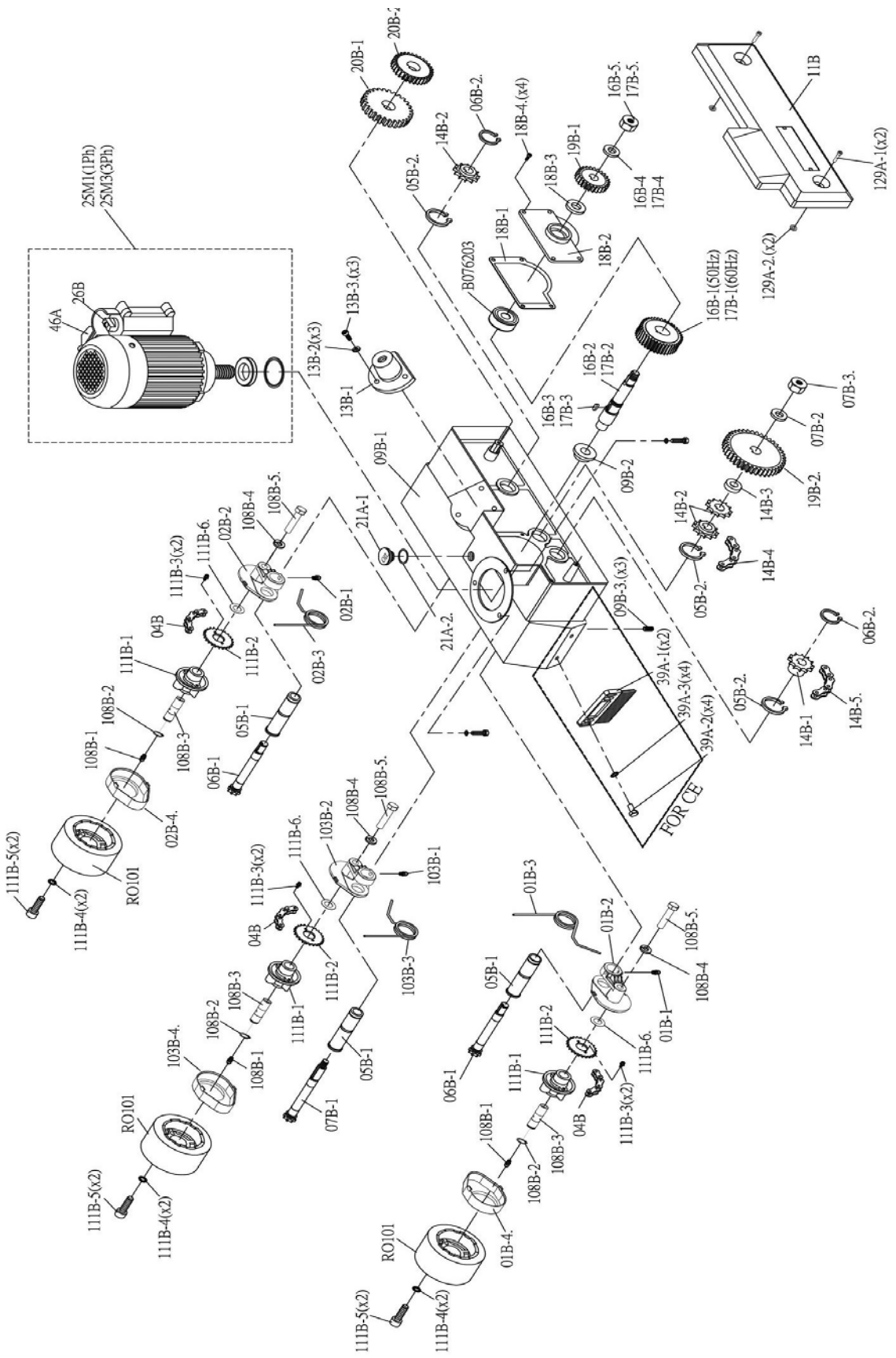


Fig. 55: Spare parts drawing 1 - feed unit VSA 308

Spare parts drawing 2: Tripod of feed unit VSA 308

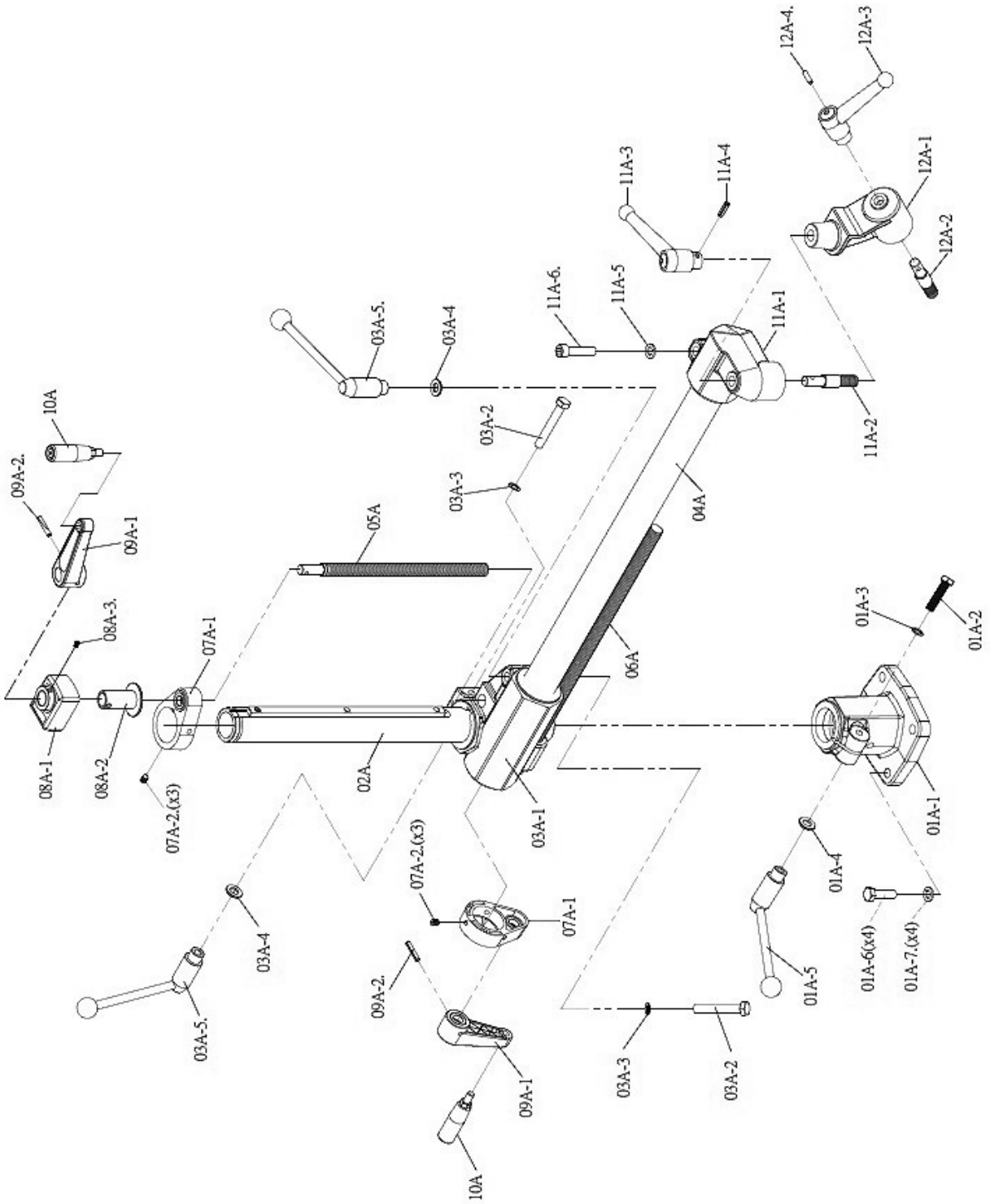


Fig. 56: Spare parts drawing 2 - tripod of feed unit VSA 308

13.2.3 Spare parts drawings: Feed Unit VSA 38L

Spare parts drawing 1

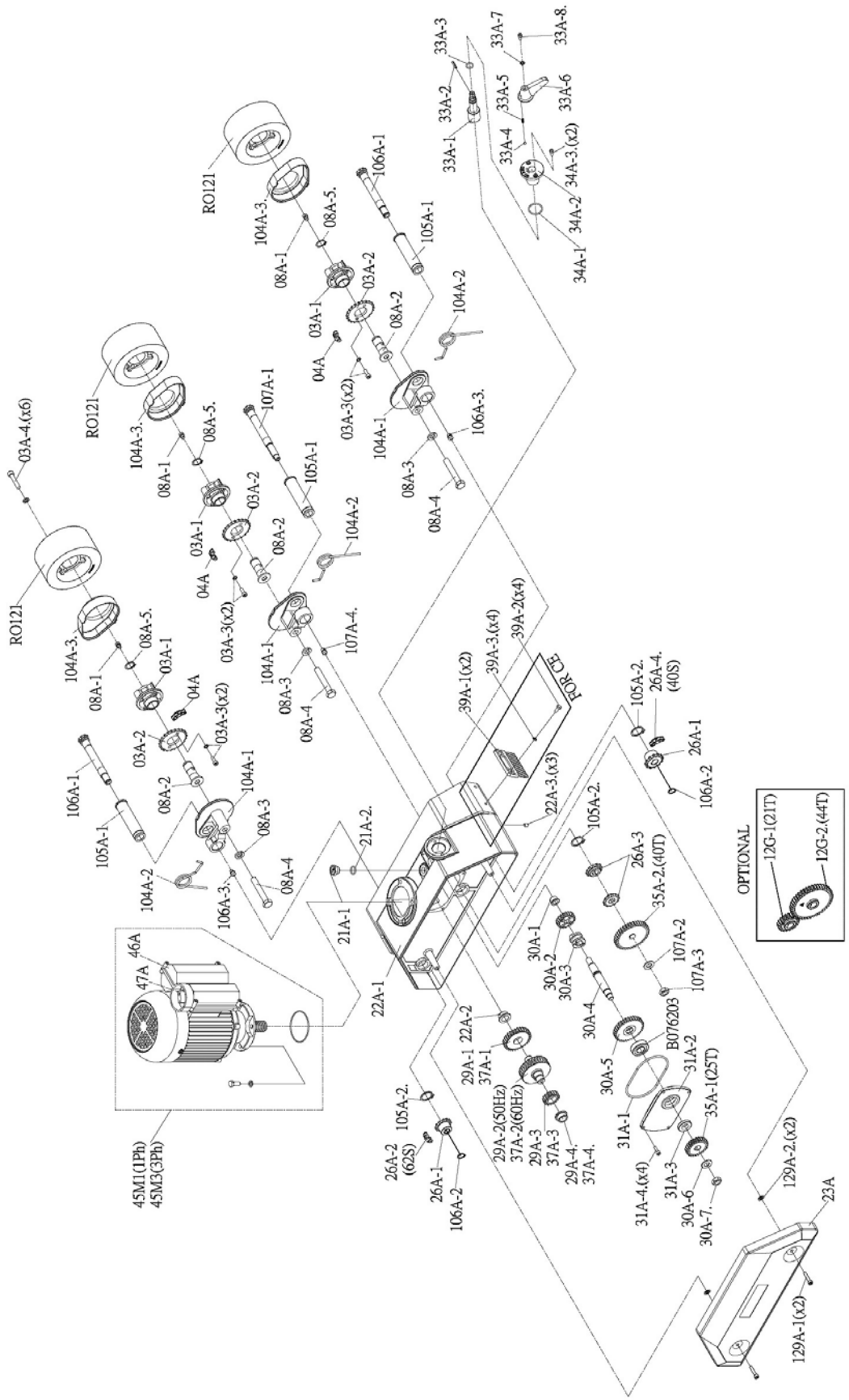


Fig. 57: Spare parts drawing 1 - feed unit VSA 38 L

Spare parts drawing 2: Tripod of feed unit VSA 38L

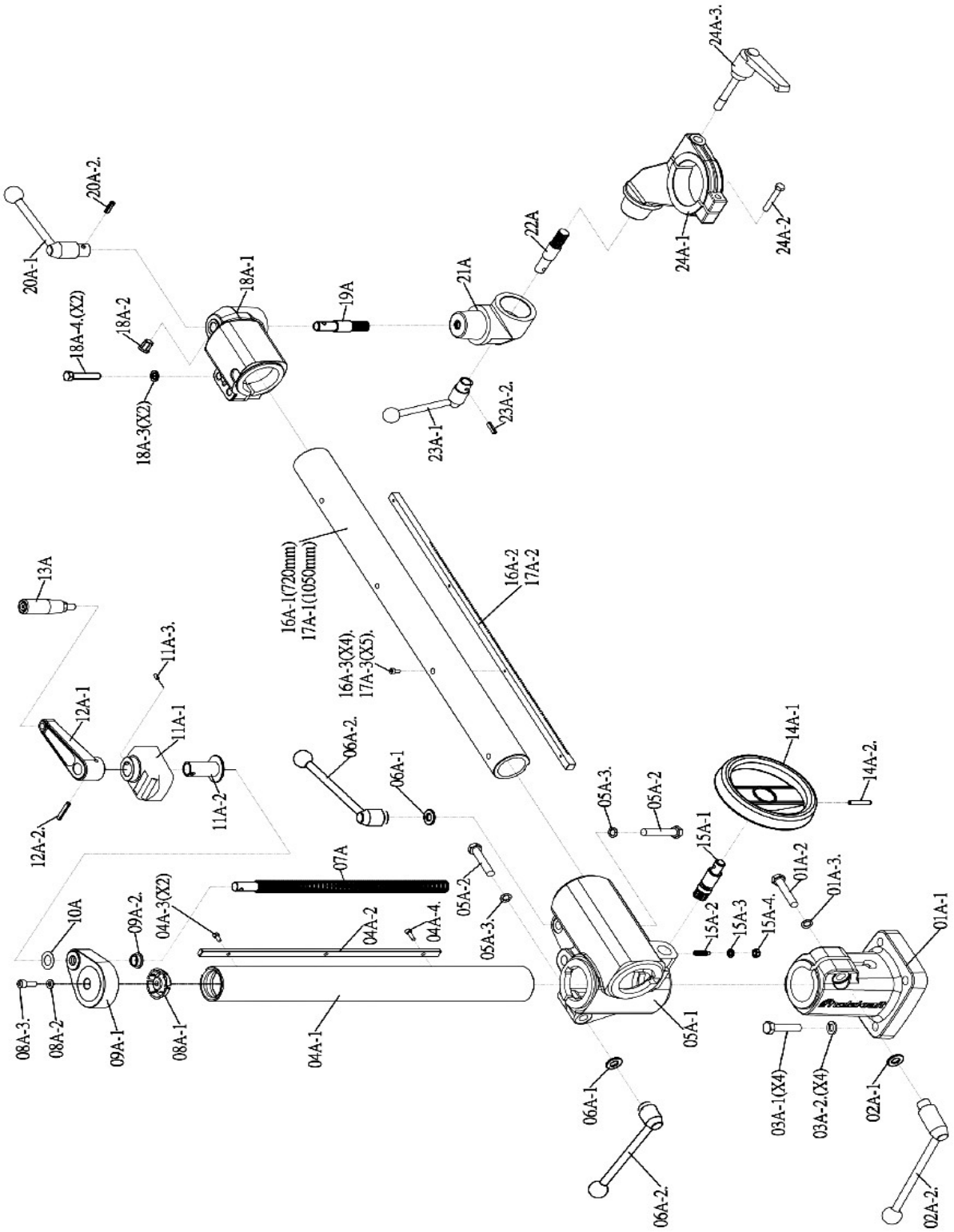


Fig. 58: Spare parts drawing 2 - tripod of feed unit VSA 38L

13.2.4 Spare parts drawings: Feed Unit VSA 48L

Spare parts drawing 1

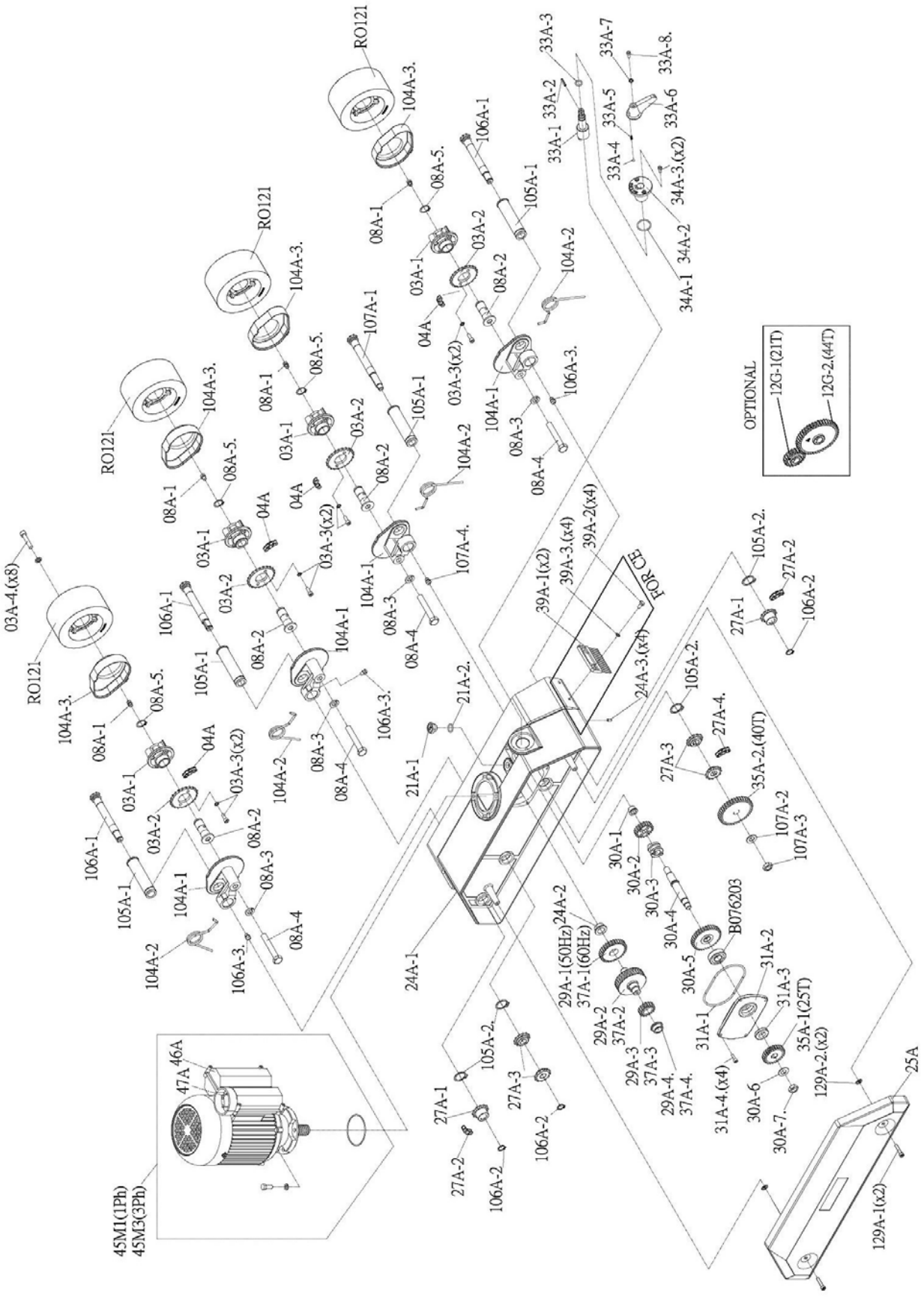


Fig. 59: Spare parts drawing 1 - feed unit VSA 48 L

Spare parts drawing 2: Tripod of feed unit VSA 48L

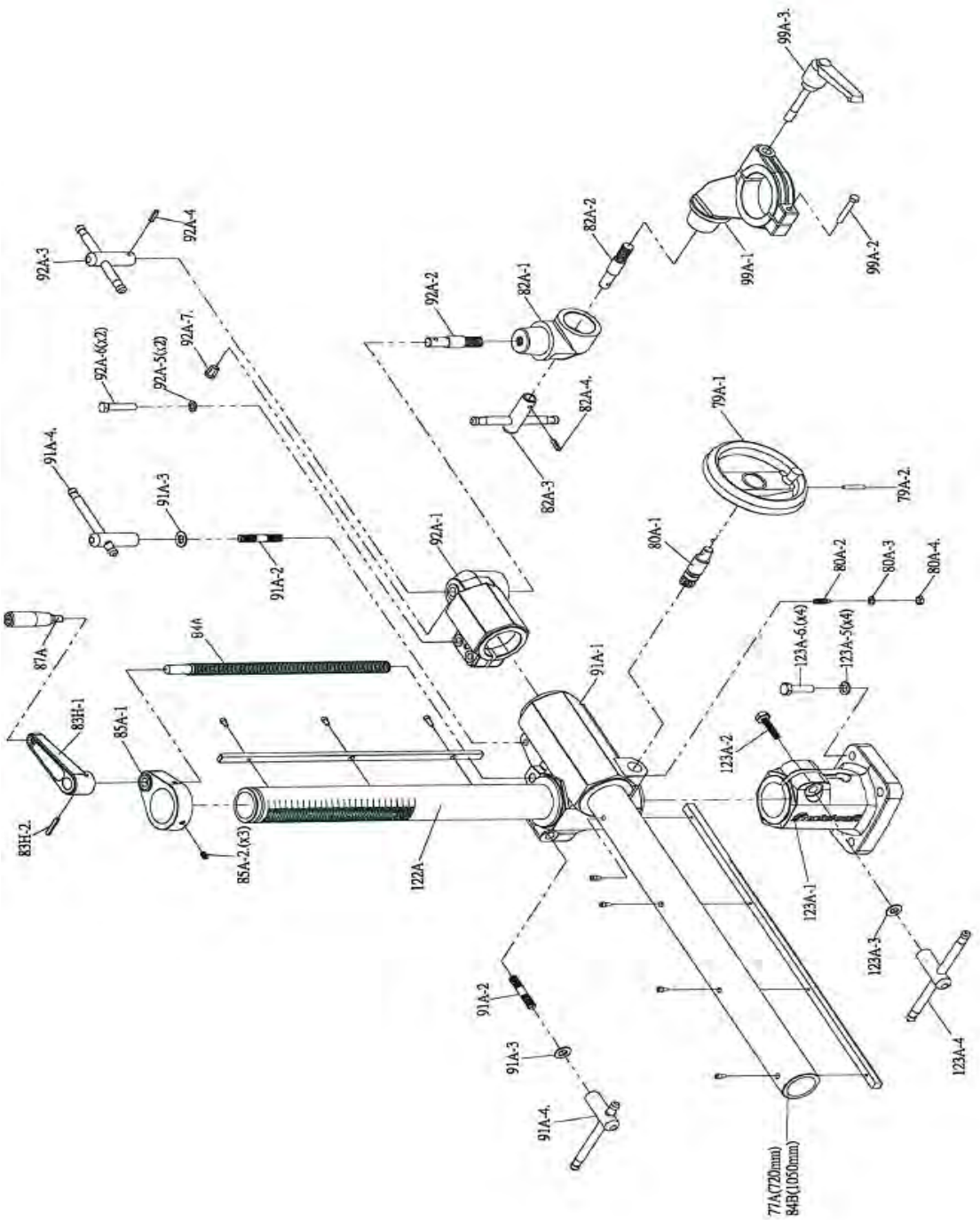


Fig. 60: Spare parts drawing 2 -tripod of feed unit VSA 48 L

13.2.5 Spare parts drawings: Feed Unit VSA 38 EL

Spare parts drawing 1

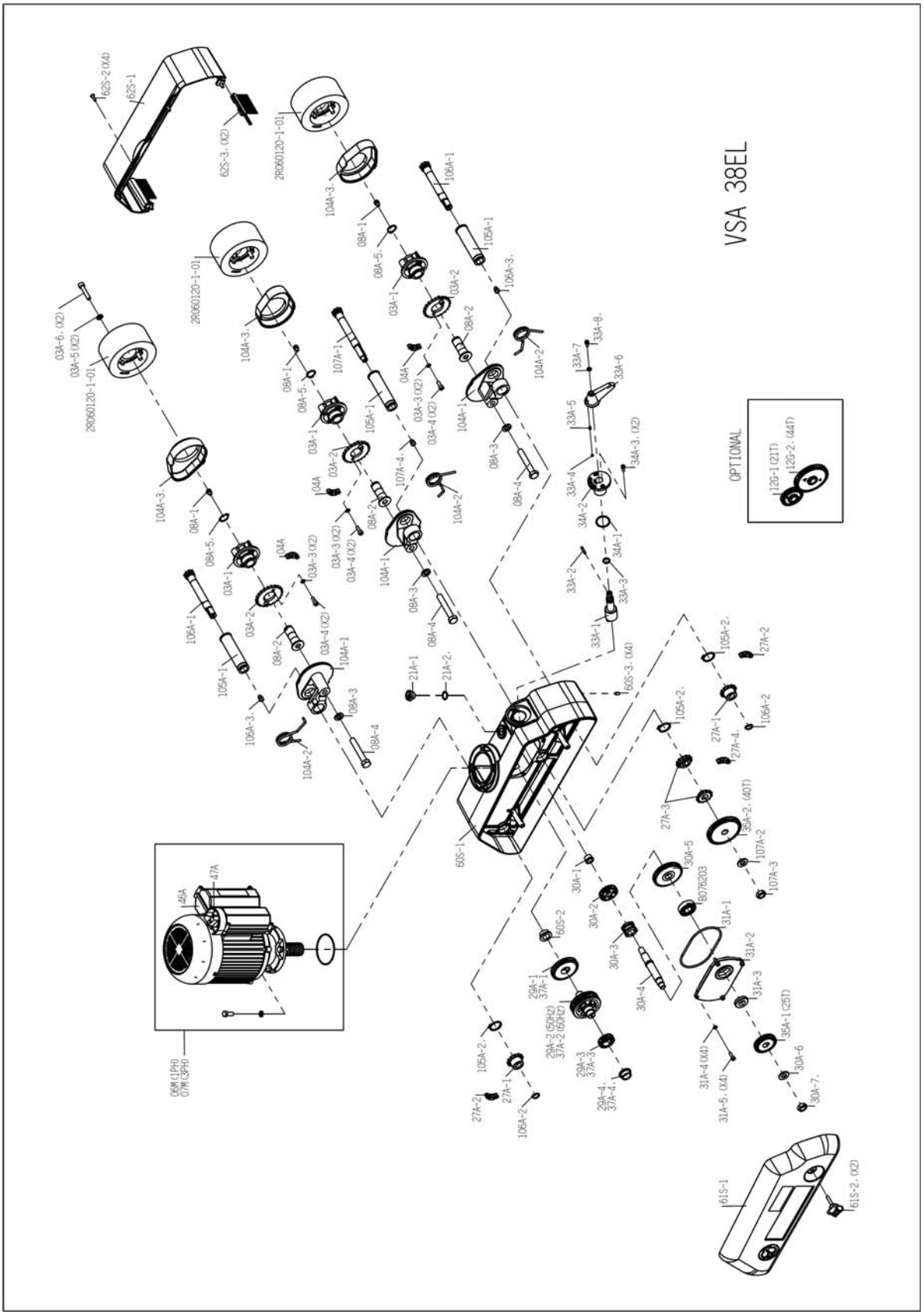


Fig. 61: Spare parts drawing 1 - feed unit VSA 38 EL

Spare parts drawing 2: Tripod of feed unit VSA 38 EL

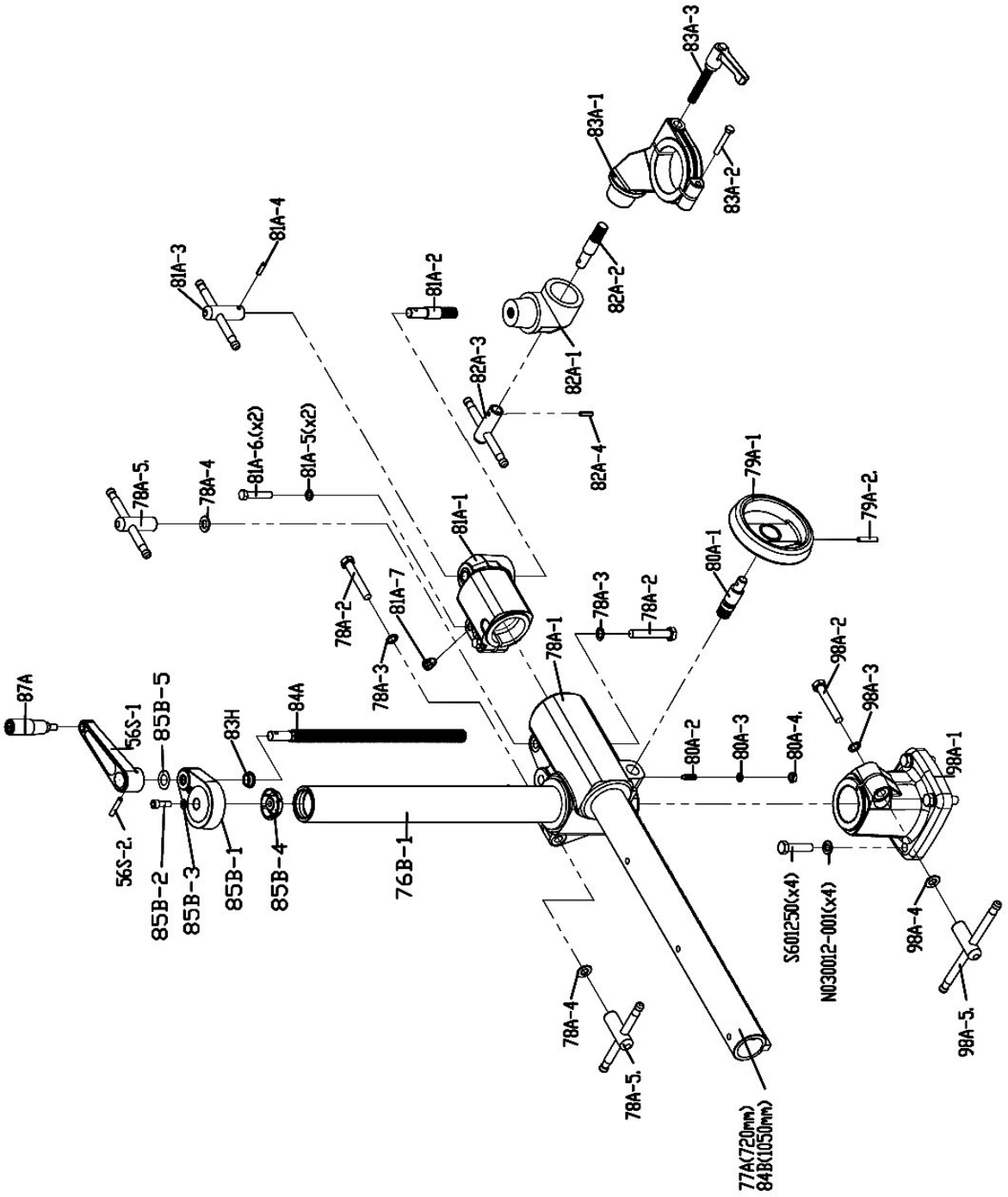


Fig. 62: Spare parts drawing 2 - tripod of feed unit VSA 38 EL

13.2.6 Spare parts drawings: Feed Unit VSA 48 EL

Spare parts drawing 1

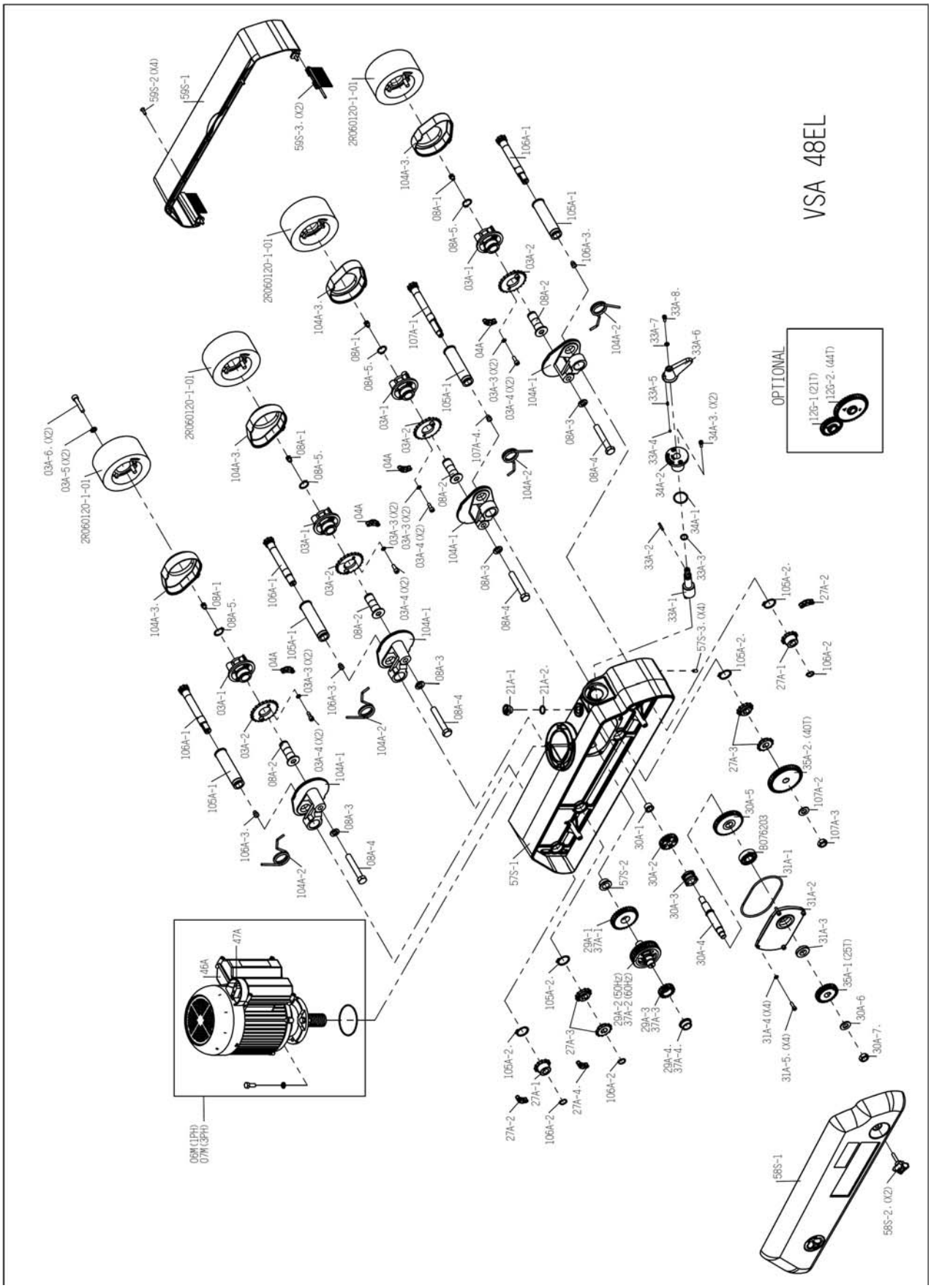


Fig. 63: Spare parts drawing 1 - feed unit VSA 48 EL

Spare parts drawing 2: Tripod of feed unit VSA 48 EL

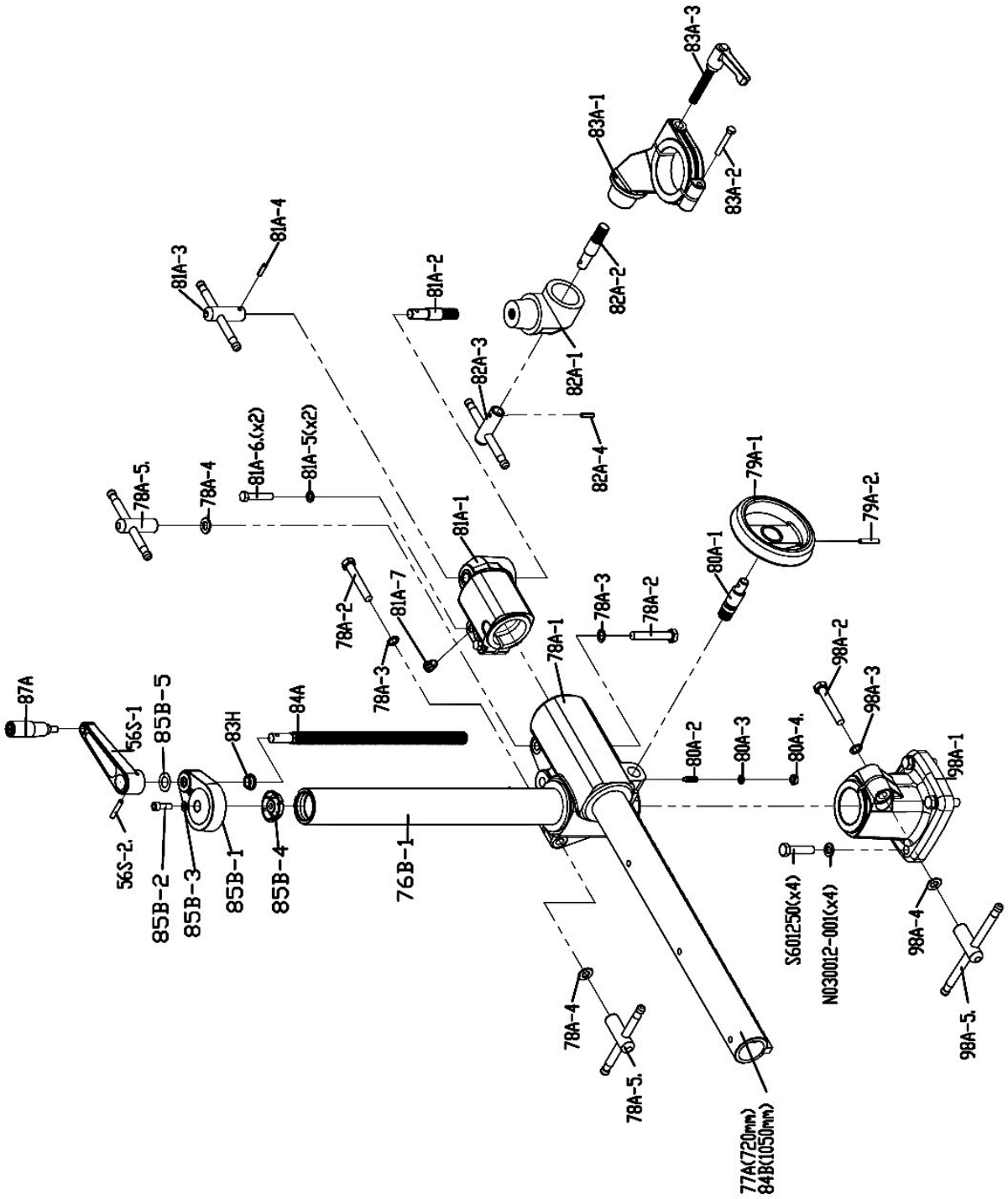


Fig. 64: Spare parts drawing 2 - tripod of feed unit VSA 48 EL

13.2.7 Spare parts drawings: Feed Unit VSA 300

Spare parts drawing 1

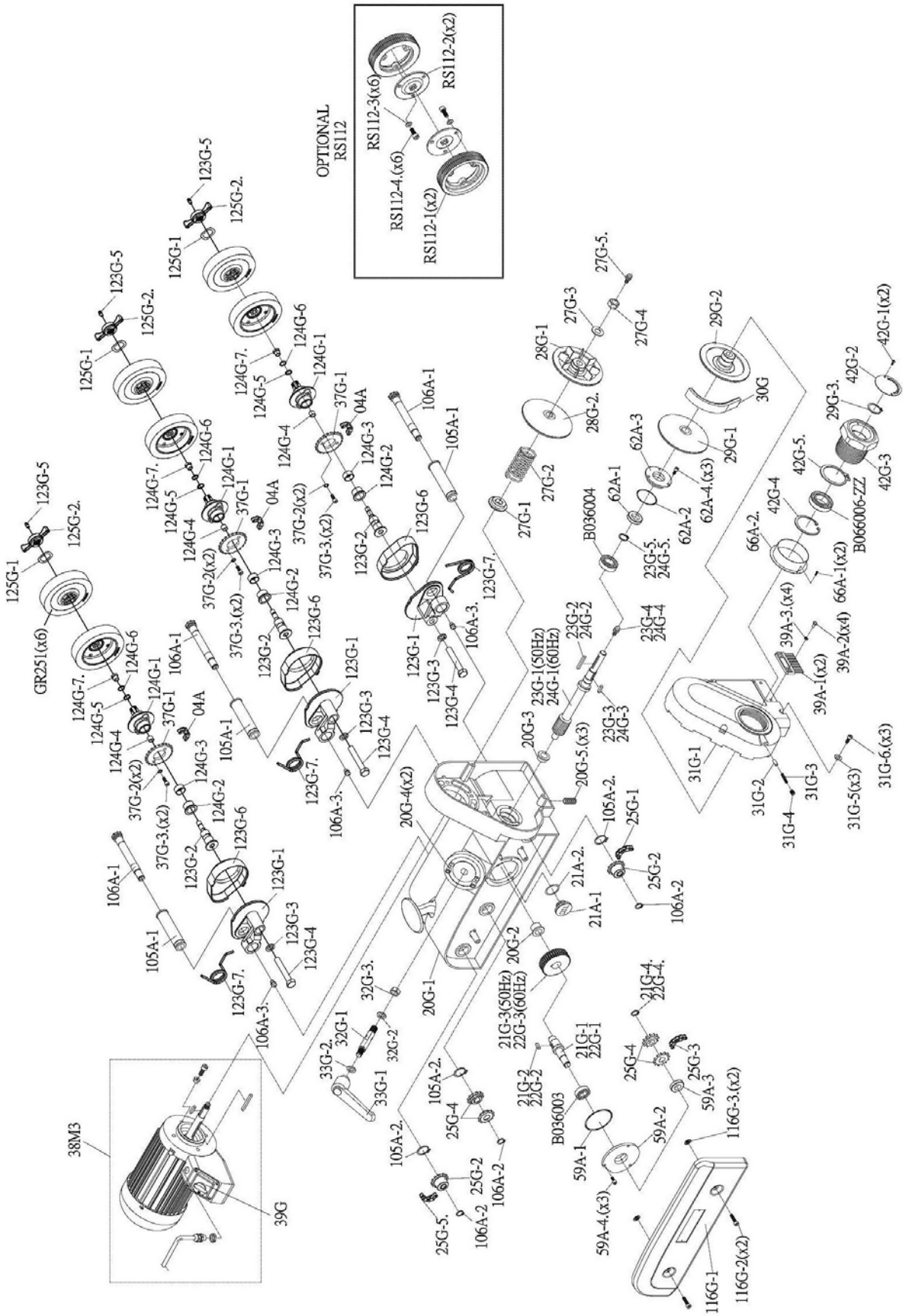


Fig. 65: Spare parts drawing 1 - feed unit VSA 300

Spare parts drawing 2: Tripod of feed unit VSA 300

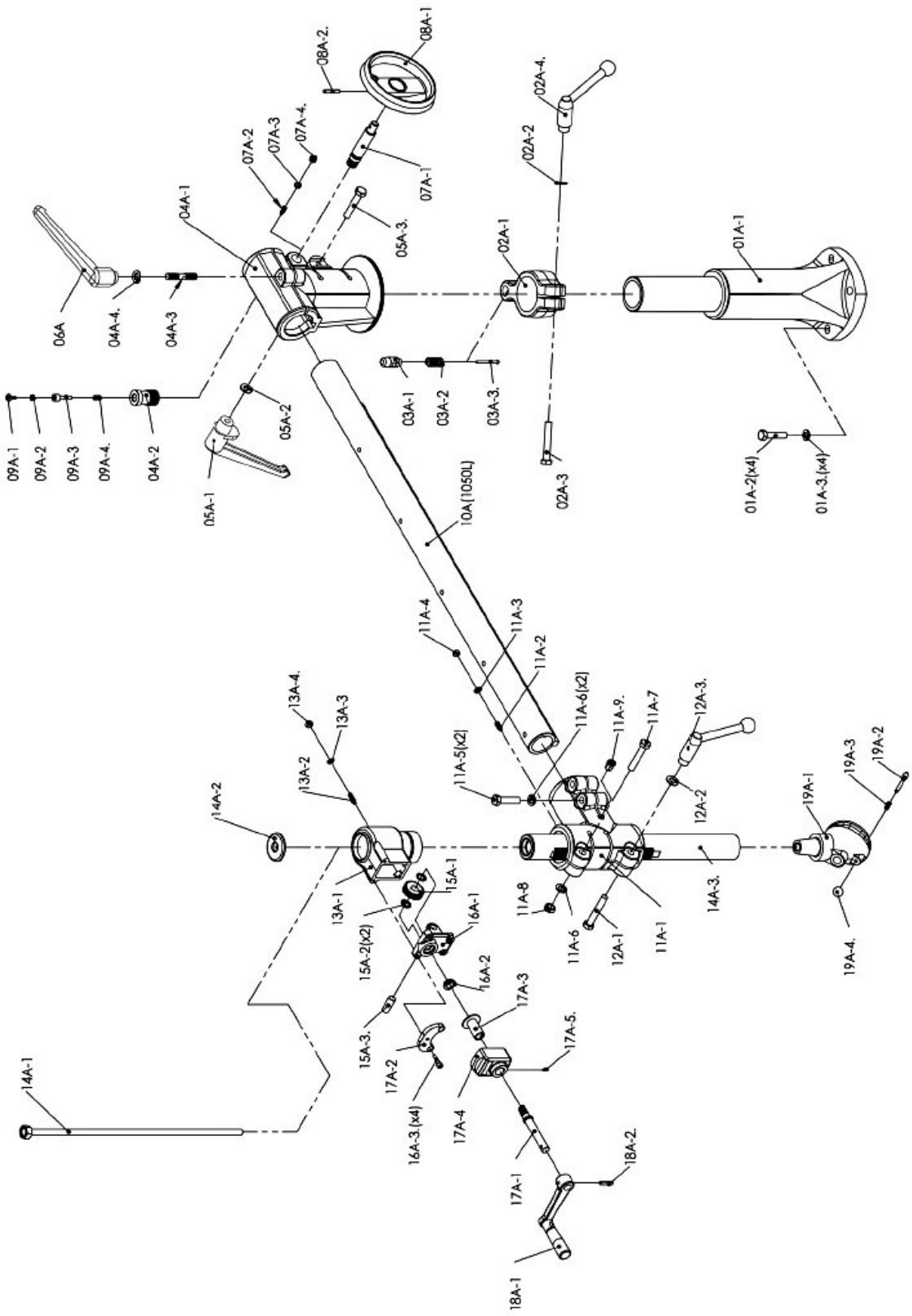


Fig. 66: Spare parts drawing 2 - tripod of feed unit VSA 300

13.2.8 Spare parts drawings: Feed Unit VSA 400

Spare parts drawing 1

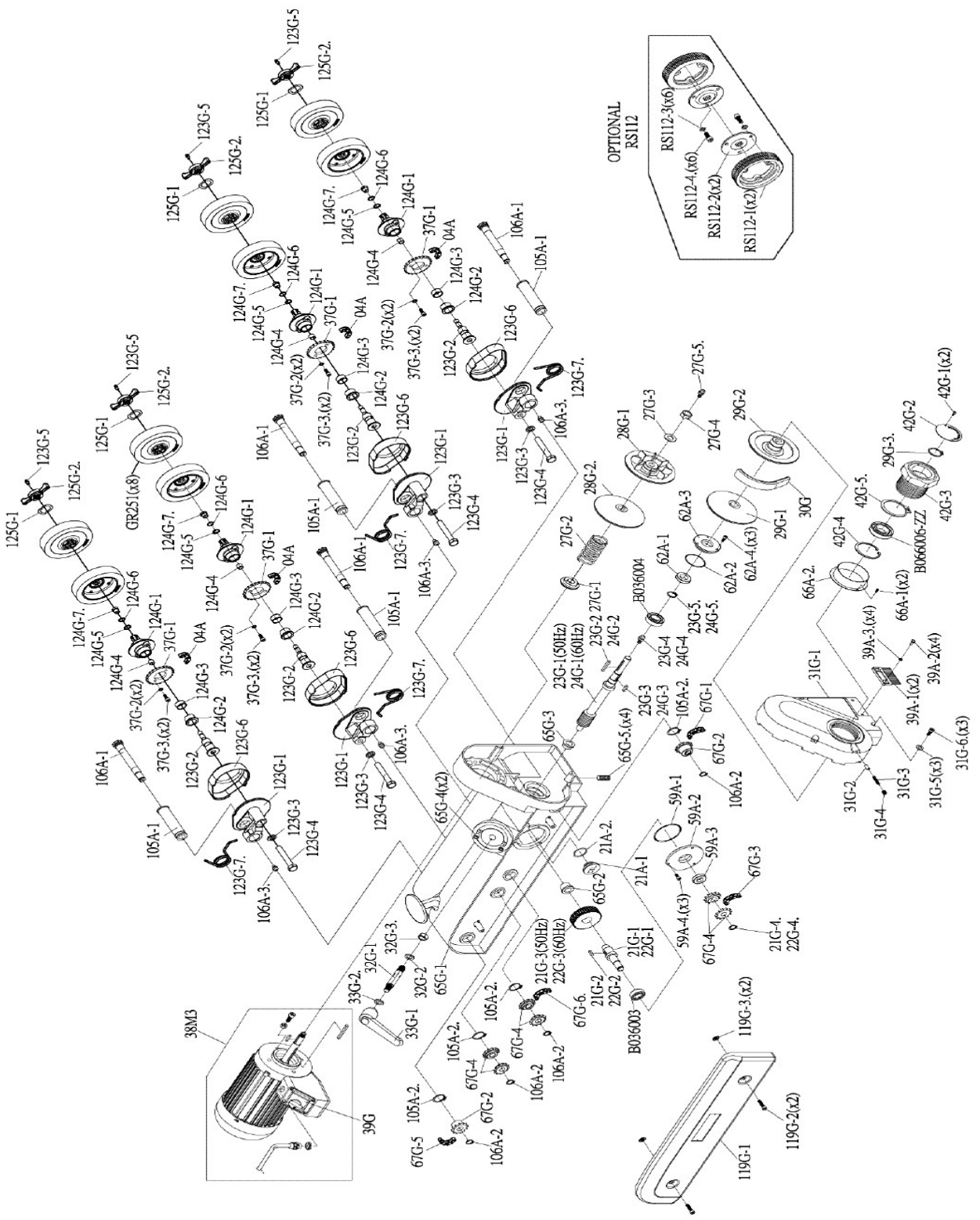


Fig. 67: Spare parts drawing 1 - feed unit VSA 400

Spare parts drawing 2: Tripod of feed unit VSA 400

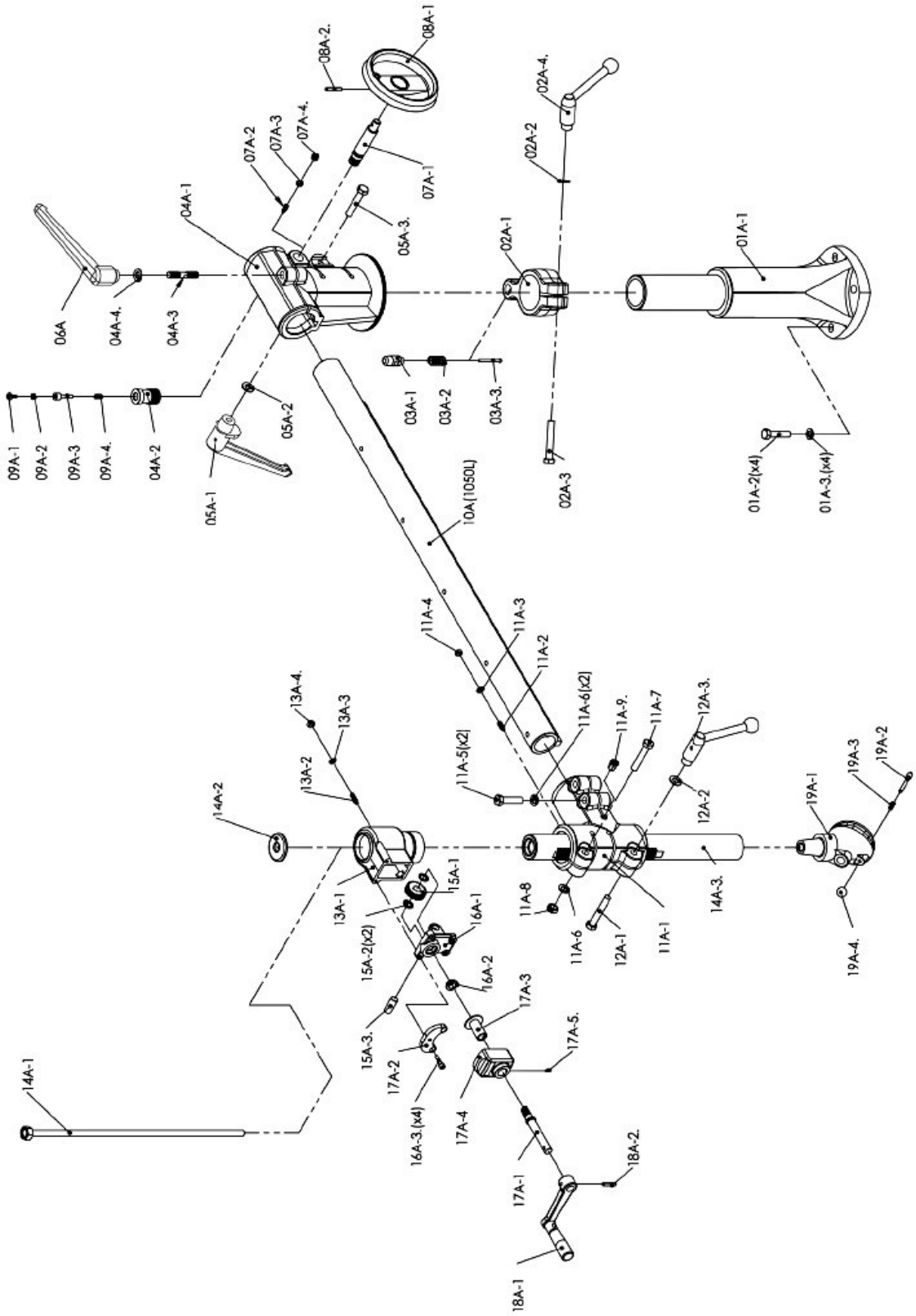


Fig. 68: Spare parts drawing 2 - tripod of feed unit VSA 400

13.2.9 Spare parts drawings: Feed Unit VSA 300 DC

Spare parts drawing 1

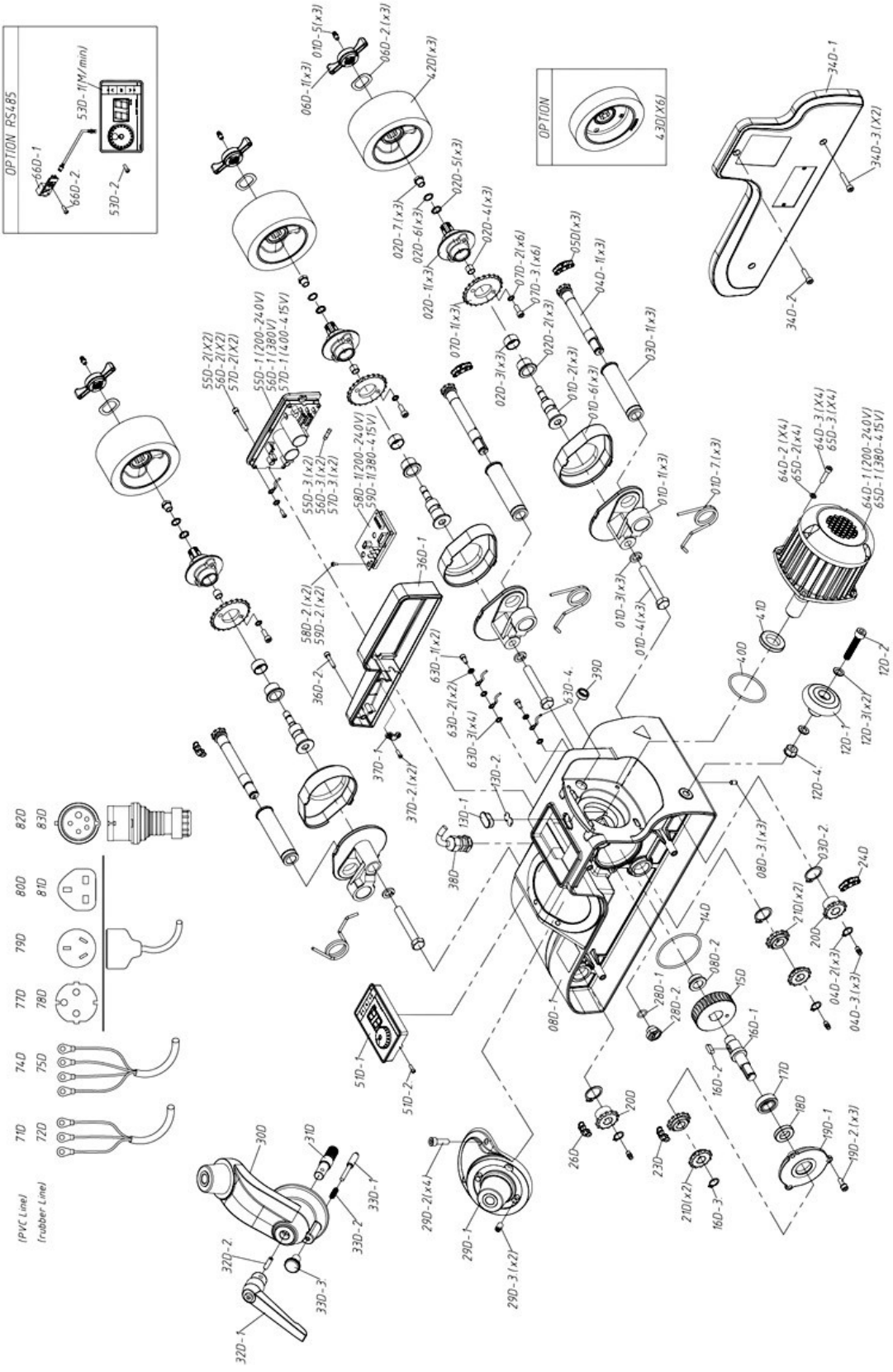


Fig. 69: Spare parts drawing 1 - feed unit VSA 300 DC

Spare parts drawing 2: Tripod of feed unit VSA 300 DC

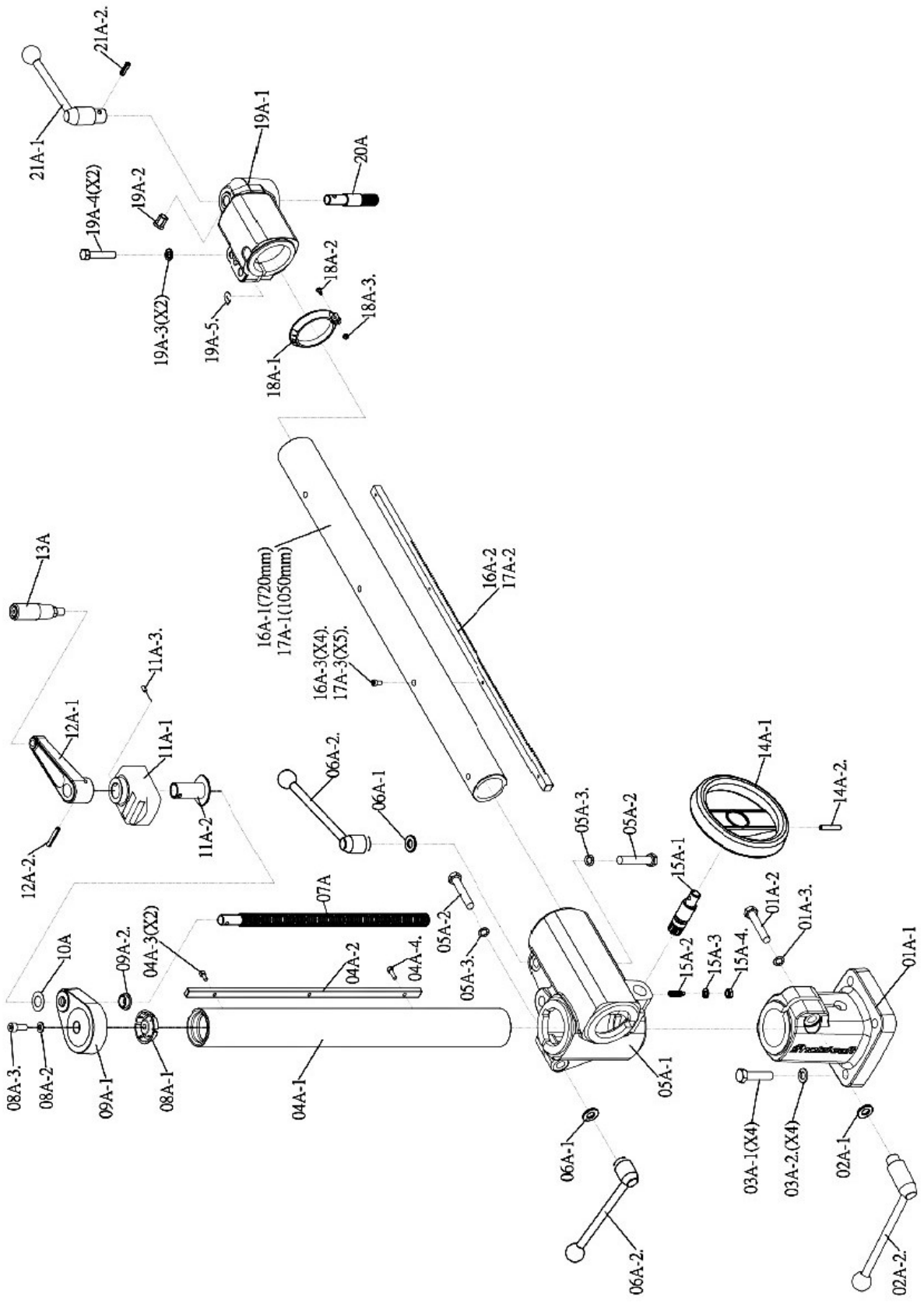


Fig. 70: Spare parts drawing 2 - tripod of feed unit VSA 300 DC

13.2.10 Spare parts drawings: Feed Unit VSA 400 DC

Spare parts drawing 1

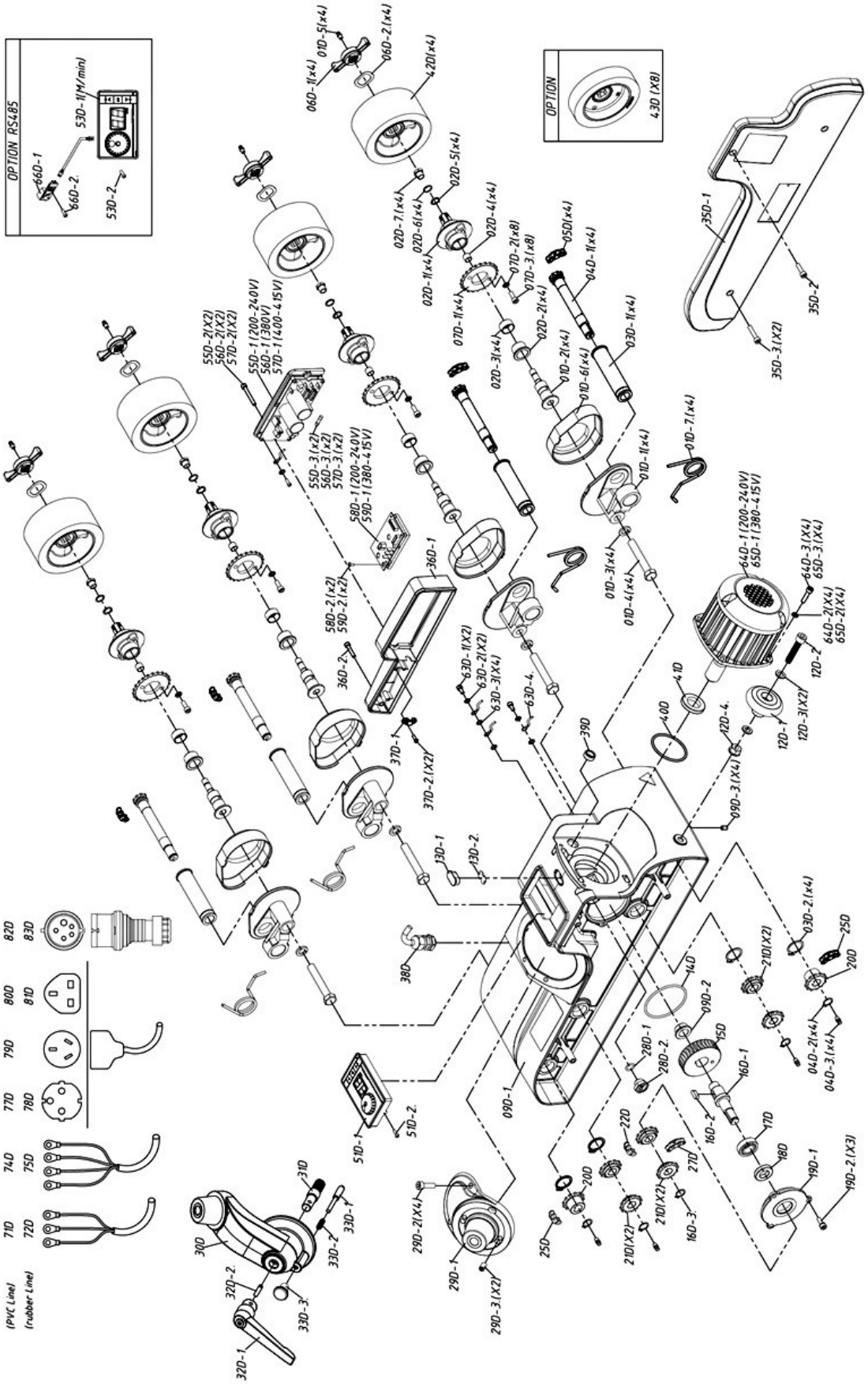


Fig. 71: Spare parts drawing 1 - feed unit VSA 400 DC

Spare parts drawing 2: Tripod of feed unit VSA 400 DC

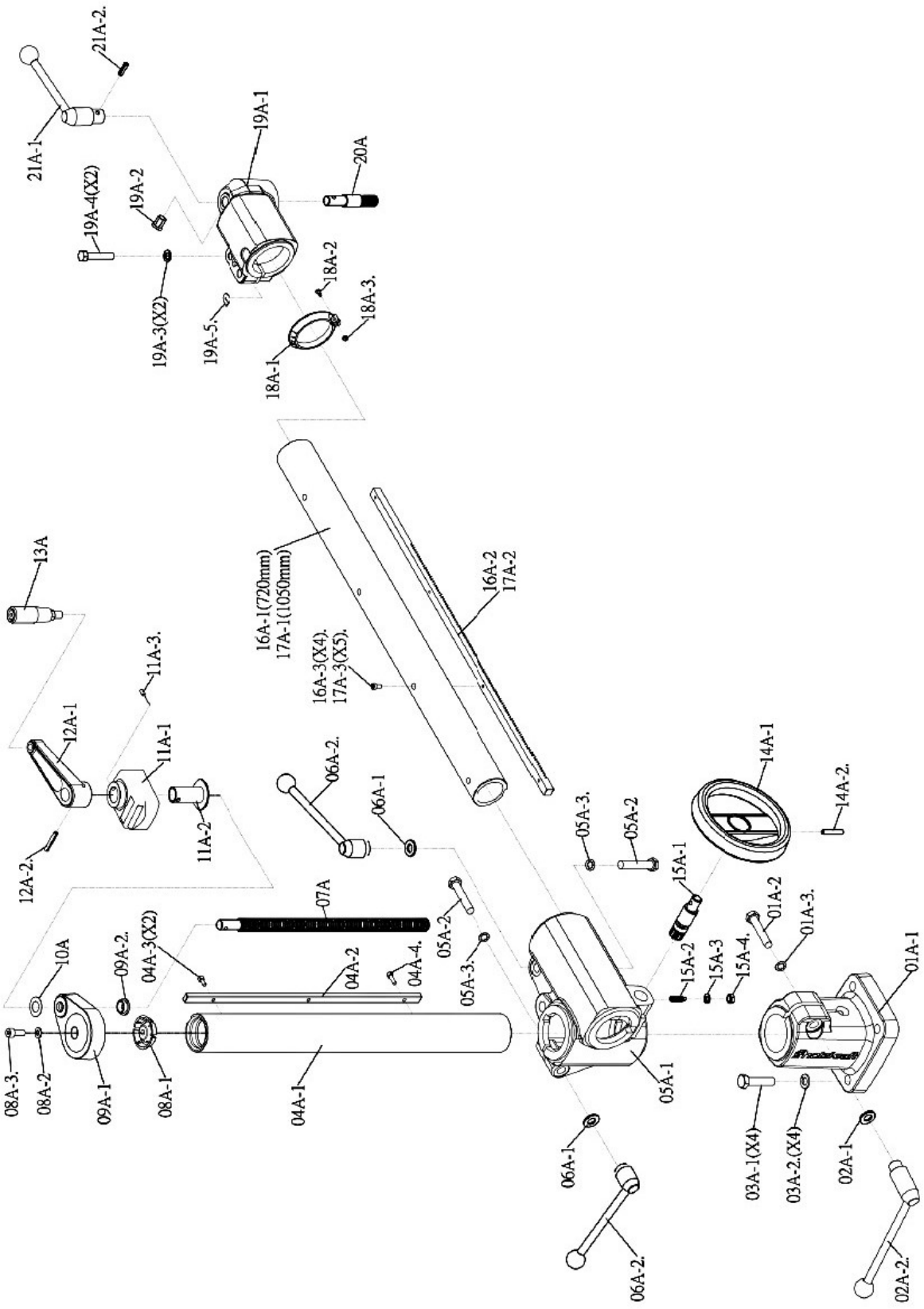


Fig. 72: Spare parts drawing 2 - tripod of feed unit VSA 400 DC

14 Electrical circuit diagrams

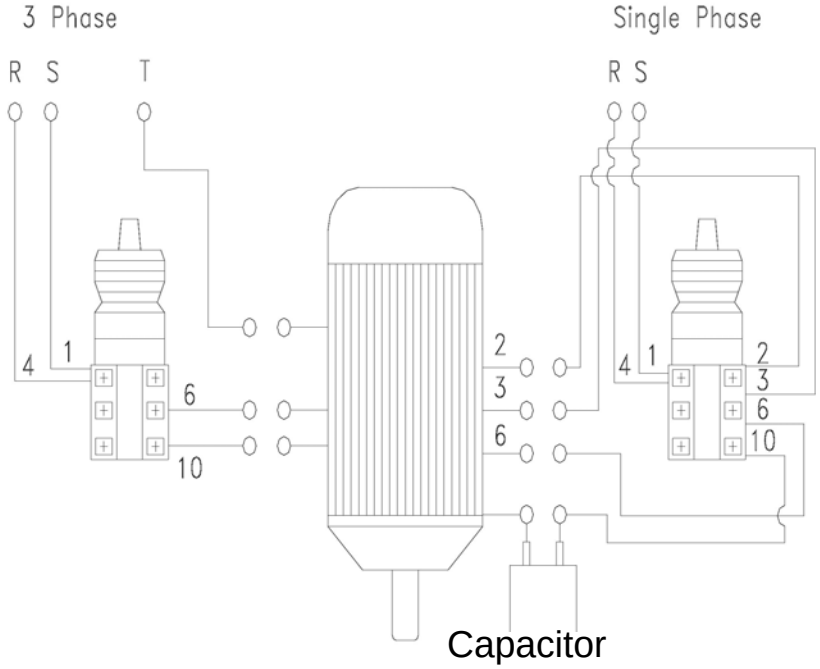


Fig. 73: Electrical circuit diagrams VSA 32 400V left, 230V right

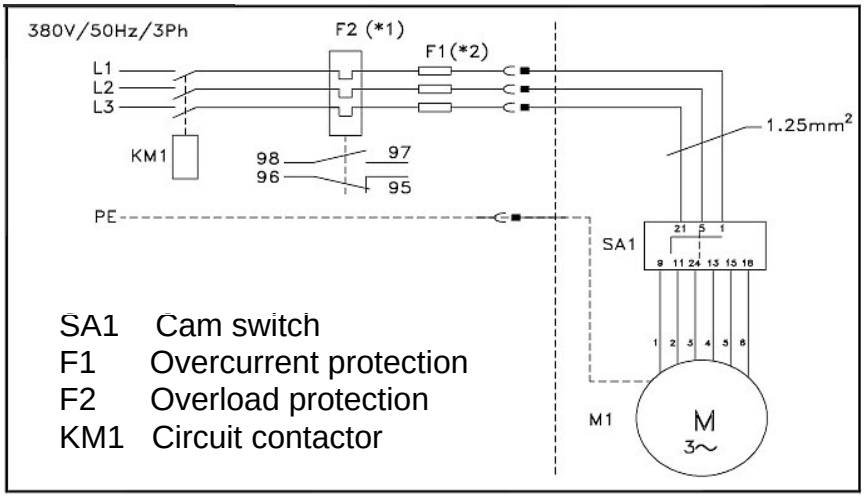


Fig. 74: Electrical circuit diagram VSA 308, VSA 38 L, VSA 48 L

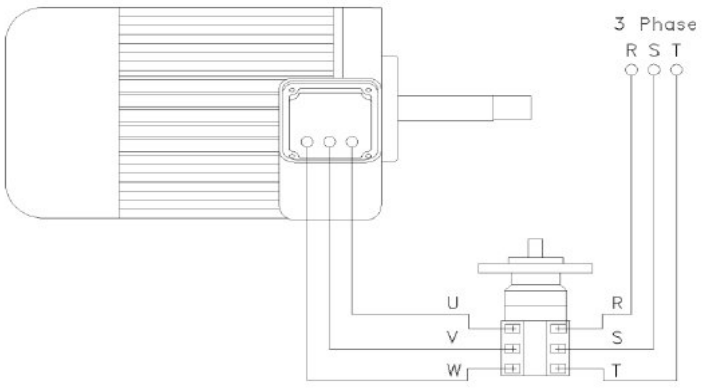


Fig. 75: Electrical circuit diagram VSA 300, VSA 400

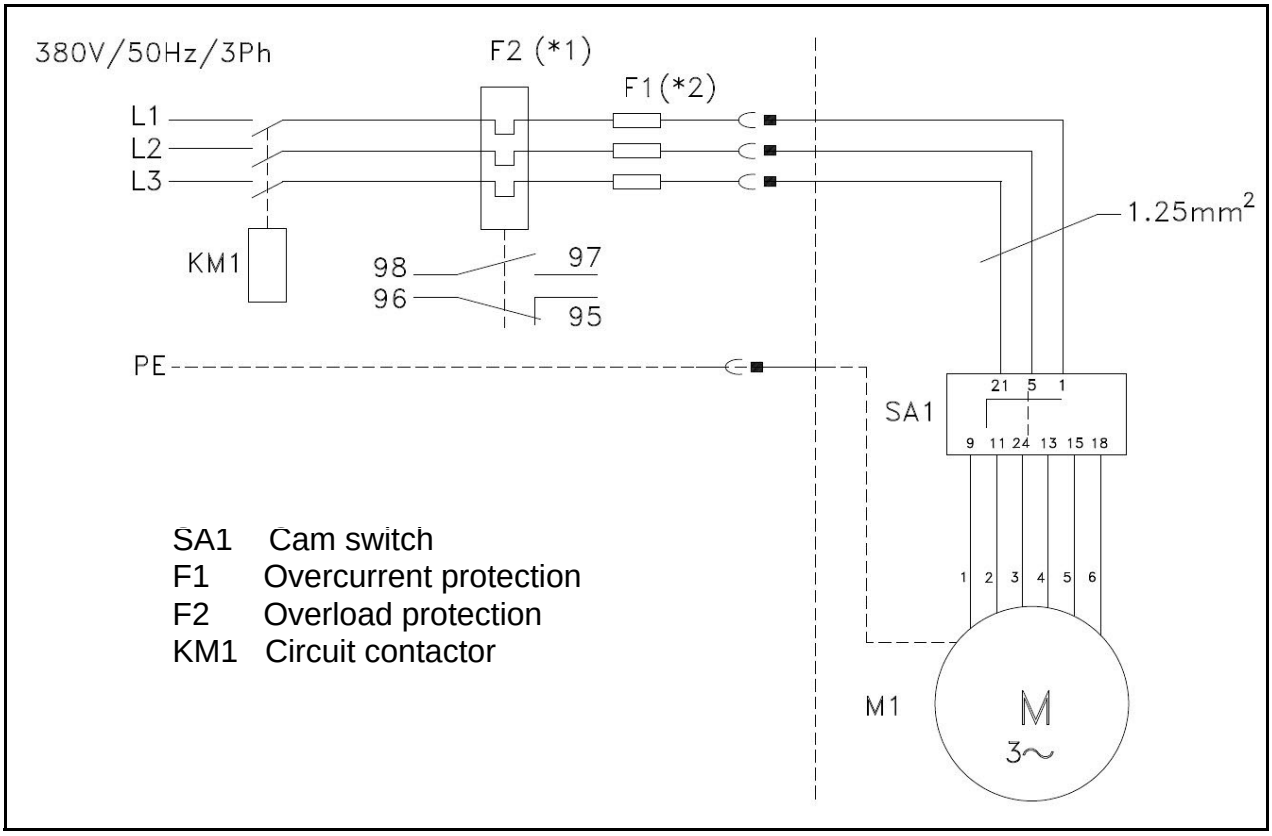


Fig. 76: Electrical circuit diagram VSA 38 EL and 48 EL

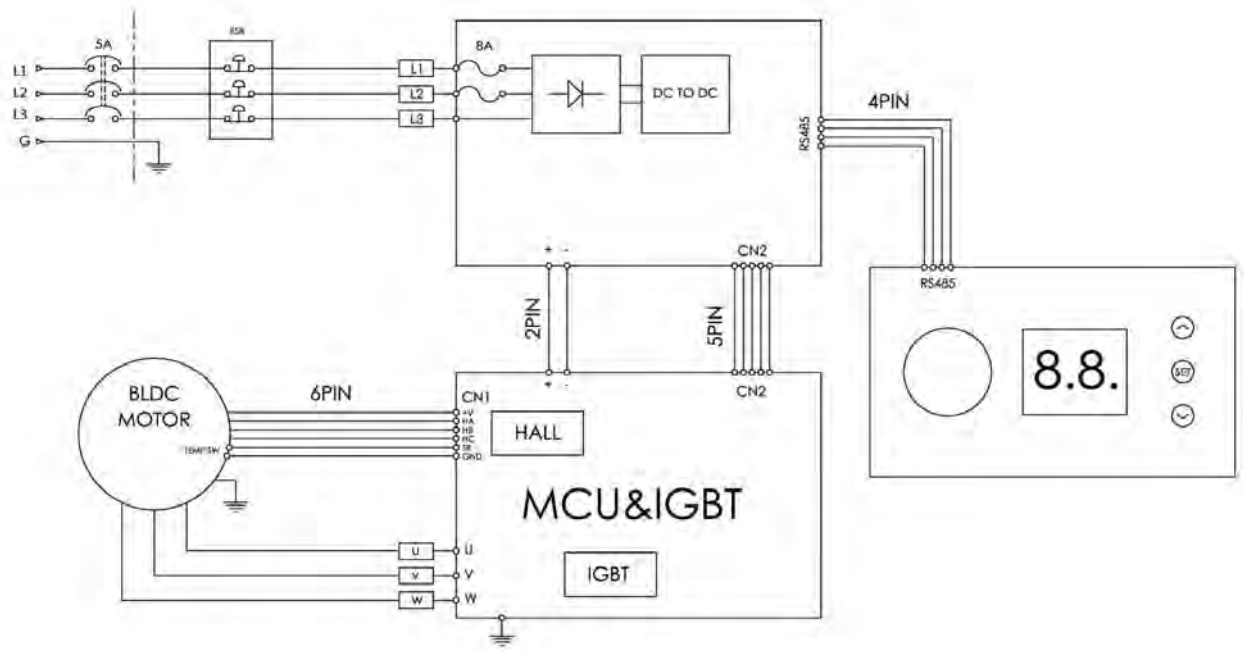


Fig. 77: Electrical circuit diagram VSA 300 DC and 400 DC

15 EC Declaration of Conformity

As per machine directive 2006/42/EC, Appendix II 1.A

Manufacturer / distributor: Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

hereby declares that the following product

Product Category: Holzkraft® Holzbearbeitungsmaschinen

Machine type: Feed Unit

Designation of the machine*:	**Item number:**
☐ VSA 32	☐ 5111000 (400 V)* / ☐ 5111001 (230 V)*
☐ VSA 308	5113000
☐ VSA 38 L	5114500
☐ VSA 48 L	5115500
☐ VSA 38 EL	5114501
☐ VSA 48 EL	5115501
☐ VSA 300	5116300
☐ VSA 400	5116400
☐ VSA 300 DC	5110303
☐ VSA 400 DC	5110403

Serial number*: _____

Year of manufacture*: 20____

* please fill in according to the information on the type plate.

corresponds, on the basis of its design and construction, as well as the version that we have put into circulation, with the relevant fundamental health and safety requirements of (subsequent) EU Directives.

Relevant EU Directives: 2014/30/EU EMC-Directive

The following harmonized standards have been applied:

DIN EN ISO 12100:2011-03	Safety of machinery - General principles for design - Risk assessment and risk reduction
DIN EN 60204-1:2014	Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2005, modified);

Responsible for documentation: Kilian Stürmer, Stürmer Maschinen GmbH,
Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt

Hallstadt, 29.10.2020

_____
Kilian Stürmer
Manager

16 Notes


stürmer
OPTIMUM