

GLOBAL

SK 112

Skiving machine

**Instruction &
spare parts manual**

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1 Safety Rules

These safety rules will help you to operate the machine according to safety requirements and to protect you against injuries. Make yourself thoroughly familiar with these safety rules prior to the transport, connection and operation of the machine. All safety and danger reference marks at the machine must be readable at any time. The necessary order numbers for reorders are found in parts manual K part.

The guarantee for function and safe operation can only be given in the case of appropriate operation and the utilization of our company spare parts.

- Check the functioning of all safety devices at regular intervals.
- Contact our company after sales service immediately if you find out deficiencies in the safety area.
- The operation of the machine by persons who are younger than 14 years is not allowed.
- The machine is designed to be operated by one person only and must be used accordingly.

1.1 Range of Application of the Machine

This machine is not permitted to be operated in an explosion-proof area.

Only use this machine for cutting and skiving of leather or material that is similar to leather (also artificial leather).

Any other use of the machine may not correspond with the application range of the machine. Our company is not responsible for any damages resulting from the non-observance of these rules.

The correct applications of the machine are:

- the observance of all recommendations in the operating manual
- the execution of all prescribed inspection and maintenance tasks.

The use of the following materials is not allowed:

- Metals
- Wood
- Rubber with metallic insert
- Hard PVC
- Textiles
- Glass
- Ceramics

1.2 Personal Safety

- Read and observe the safety rules indicated on the reference plates, please refer to Figure 1: View of the machine (page 15).
- Use protecting equipment, e.g. steel mesh chain gloves for all work for which these protections are obligatory.
- Do not wear loose clothes. Wear a hair net or bind your hair if your hair is down to your shoulders. These measures are necessary in order to avoid any contact with moving machine parts.
- Inform your company safety representative about all injuries and accidents.
- It is not allowed to eat or drink at the place of operation of the machine.

1.3 Safety in the Operation Area

- Keep the operation area clean and make sure that the lighting is satisfactory. Do not keep tools and loose machine parts close to the machine.
- Return tools and equipment to their place after use.
- Safety devices must not be bypassed, dismantled or made ineffective by blocking them.
- The machine must only be operated with completely closed cover and knife cover mounted.

1.4 Safety Rules for the Use of Tools

- Wear gloves and protective clothing when you are working with sharp-edged cutting tools.
- Store the tools (grinding wheels etc.) in the bins that are provided for this purpose.
- Remove hand tools (wrenches, measuring devices etc.) immediately after use.

1.5 Safety Rules for the Transport

- The convenient lifting devices must be used for the installation and transport of the machine.
- Stand clear of the machine when lifting or transporting the machine.
- Install safety devices to avoid the machine being dropped.

1.6 Safety Rules for the Installation and

Operation of the Machine

- Read, take care and observe all the safety reference marks on the machine, please refer to Figure 1: View of the machine (page15)
- Make sure that all safety devices of the machine have been activated prior to the start-up of the machine.
- Do not remove any covers or machine parts during the operation.
- Check the tool for wear and damage prior to the start-up of the production process.
- Take care that there are no excessive vibrations and unusual noise during the operation and maintenance of the machine. They might inform you about possible problems which require immediate attention.

1.7 Safety Rules for Repair and Maintenance Work

- Changes and reconstructions of the machine should be carried out with the approval of our company only.
- It is not allowed to inactivate safety devices or safety guards or to impair their effectiveness.
- Take utmost care when certain installation work of the machine requires to switch off safety devices.
- It is obligatory to blunt the knife prior to opening the covering or changing the knife. Even when the knife is dull there is a risk of injury. Therefore, the use of steel mesh safety gloves is mandatory.
- Spare parts and replacement parts subject to wear must be examined prior to their installation and must comply with the manufacturer' s specifications (this applies specially to knives and grinding wheels).
- Appropriate measures must be taken when cleaning and degreasing the machine with aggressive and inflammable agents.

We recommend that you use only original our company spare parts

1.8 Inspection Requirements

- The machine operator is bound to regularly inspect the basic units of the machine that are important for the operational safety and to replace them in case of a fault or wear.
- Obvious damages and the function of the tensioning equipment of the knife, all drive elements and the guide elements which are in contact with the knife must always be inspected when the knife is replaced.

1.9 Further Safety Rules

During the working process there remains a small risk of injury because complete protection in the working zone of the knife during the skiving process of leather parts is not possible.









This zone is marked with a danger label (photograph). The machine has been designed for optimum safety in accordance with the latest technical safety standards.

For further information about safety rules, please refer to this operating manual as well as to the national and international safety recommendations and laws.

1.10 Symbols and Reference Marks

The following symbols and reference marks will be used in this operating manual and /or are attached at the Skiving Machine.

Symbol	Description
	<p>This symbol signifies a direct hazard to life and health. Non-observance of these directions may be highly dangerous to your health or result in injuries that could endanger your life.</p>
	<p>This symbol signifies a possible hazard to life and health. Non-observance of these directions may be highly dangerous to your health or result in injuries that could endanger your life.</p>
	<p>This symbol refers to the appropriate operation of the Skiving Machine. Non-observance of these directions could result in a failure of the machine and damage to the environment.</p>
	<p>This symbol refers to a specific operation of the machine and other relevant information for the machine.</p>
	<p>This symbol signifies that there is an increased danger of injury from the unshielded knife. It signifies a direct hazard to life and health. Non-observance of these directions may be highly dangerous to your health or result in injuries that are life threatening.</p>
	<p>This symbol signifies that steel mesh chain gloves must be worn during operation of the machine. It signifies a direct hazard to life and health. Non-observance of these directions may be highly dangerous to your health or result in injuries that are life threatening.</p>

2 Installation of the Machine

2.1 Unpacking the Machine

Carefully unpack the machine and inspect the packing material before its disposal.

Inspect the machine for damage and missing parts. Please refer to Chapter 4.2: Accessory Parts (page 11).

2.2 Preliminary Work for Start-up

Cleaning the Machine

The machine is provided by the supplier with a corrosion-protective coat which must be removed prior to start-up. The following work must be carried out:

- Cleaning of all belt pulleys.
- Cleaning of the guide element (presser roll/foot).
- Cleaning of the bellknife.

Attachment on the table

Use the supplied hinges to fasten the Skiving Machine on the working table. The machine operator is bound to take the appropriate safety measures which make it impossible to open the machine without tools.

Verification of the sense / direction of rotation of the bellknife

The clockwise sense of rotation is correct when the bellknife turns backwards—seen from the operator side.

3 Personnel-Requirements and Tasks

- Only skilled and trained personnel are allowed to operate the Skiving Machine.
- The responsibility of the personnel in charge of the operation, conversion and maintenance of the machine must be clearly laid out.
- Unskilled personnel is only allowed to operate the machine when supervised by a qualified staff member.

Activity	Persons		
	Skilled persons	Persons with technical education	Persons with electro-technical education
Transport		✓	
Start-up		✓	
Operation	✓		✓
Trouble shooting		✓	✓
Mechanical trouble shooting		✓	
Electrical trouble shooting			✓
Machine setting and tooling		✓	✓
Maintenance		✓	✓
Repair work		✓	✓

3.1 Operators

A training for the operation of the Skiving Machine is mandatory. The operator must be in a position to stop the machine and to inform the responsible persons in case of machine breakdowns or problems. The cleaning and the maintenance work that the operator must carry out are restricted to the daily cleaning of the filters and the operation area.

3.2 Maintenance Personnel

Adjustment and maintenance work must only be carried out by specially trained personnel. This special training is also required for operating the Skiving Machine.

All cleaning and maintenance work which requires opening the cover with tools must be done by maintenance personnel. This applies for instance to the changing of the bellknife, the changing to the grinding wheels, the changing of the feed roll etc.

The maintenance work intervals can be found in Chapter 6: Cleaning and Maintenance Work (page 16 following).

4 Description of the Machine

The picture shown below demonstrates the view and the external components of the Skiving Machine with additional references to the position of the identification plates and the most important safety rules. These safety reference marks must be renewed when they become illegible. They can be reordered at our company.

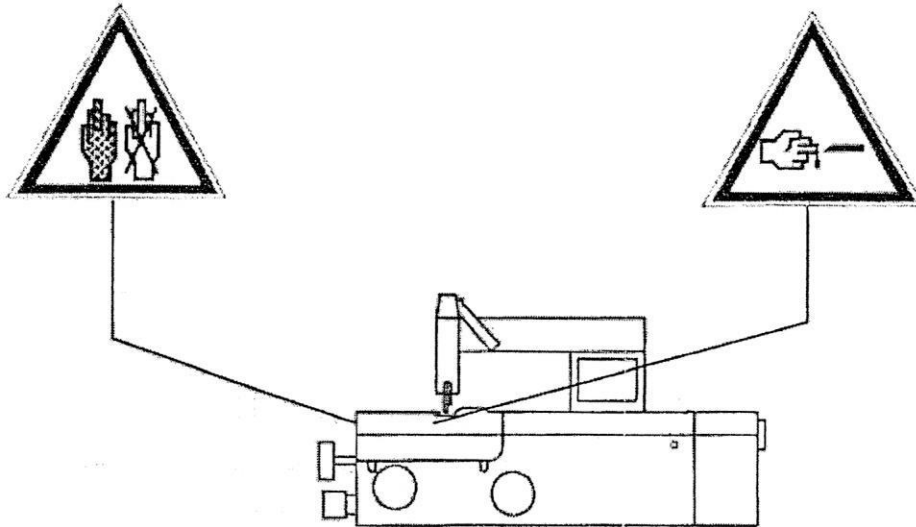


Figure 1: View of machine

4.1 Technical Data

Overall Dimensions of the Machine	
Width	431mm
Depth	383mm
Height	400mm
Weight of the machine	50kg

4.2 Accessory Parts

Various accessory parts are with the machine.

The following tools are packed in a box:

- Fork wrench 13mm×17mm
- Hexagonal socket-head wrench 2.5mm/3mm/5mm
- 1 Oil stone with sleeve
- 1 Hex driver with T-handle
- 1 Set collar

5 Operation of the Machine

The Skiving Machine must be operated from the front side by one person. The operator must be trained and made familiar with the control elements prior to the start-up of the machine. For this purpose, Figure 10: Details of the Machine-front view (page 33) should be folded out.



The machine must only be operated with completely closed covering. Cover plates and machine parts must not be removed during operation.

Conditions for skiving:

- Sharp knife edge
- Smooth, undamaged guiding edge of the presser foot
- Correct distance between knife edge and presser foot

Determination of the correct distance between knife and presser foot

Normal upper leather	0.3-0.4mm
Fine leather	0.2mm
Thick and hard leather	0.5mm

5.1 Explanation of the Control Elements

5.1.1 Adjusting screw for Adjusting the Skiving Thickness

The desired skiving thickness of the treated material is adjusted by means of this adjusting screw (7). The operating result depends on the material and should be checked by means of the thickness gauge (optional). An eccentric lever (8) that can be adjusted in two positions is placed below the adjusting screw (7). Please refer to Figure 10: Details of the Machine-front view (page 33).

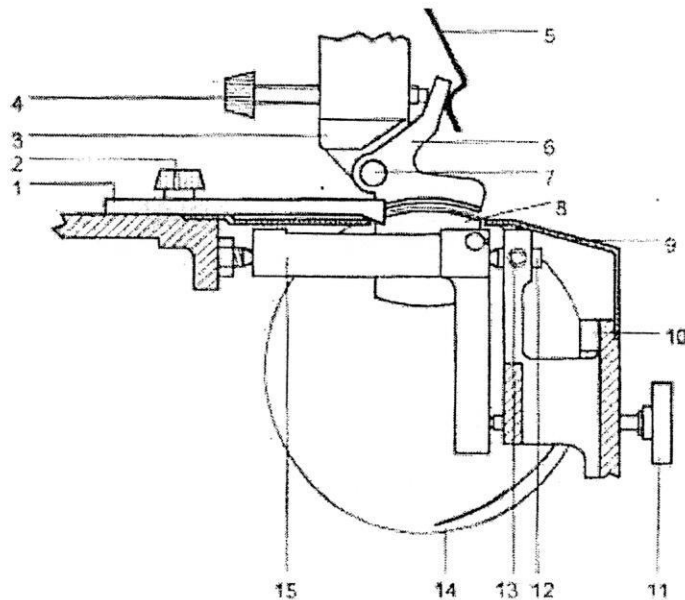
- Lever in upper position: the presser foot can be replaced.
- Lever in lower position: working position = skiving of the material.

5.1.2 Knurled Screw for Adjusting the Skiving Angle



Use this knurled screw (4) to carry out the adjustment of the skiving angle from a parallel position to its maximum width. The pressure generated by the leaf spring (5) fixed on the front side enables the skiving angle to be adjusted correctly and free from play.

For information on the position of the knurled screw and the leaf spring, please refer to Figure 2: Knife guidance.



- 1, Stop 2, Knurled screw 3, Guide bar 4, Knurled screw 5, Leaf spring 6, Presser foot 7, Conical bolt 8, Feed roll 9, Cover 10, Scrap ejector 11, Stop of the feed roll 12, Center punch 13, Cheese-head screw 14, Bellknife 15, Feed roll holder

Figure 2: Knife guidance

5.1.3 Stop for Adjusting the Skiving Width

The skiving width is adjusted by opening the knurled screw (2) and by shifting the stop (1) in the slotted hole. Please refer to Figure 2: Knife guidance.

5.1.4 Adjusting spindle for Adjusting the Grinding Intensity



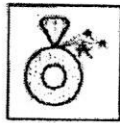
The grinding intensity for the sharpening of the knife is adjusted by means of this adjusting spindle (12). Please refer to Figure 10: Details of the machine-front view (page 33).

We recommend to sharpen the knife lightly in regular intervals.

Adjustment Process

- Slowly turn the adjusting spindle in counterclockwise direction. The grinding intensity is increased.
- Slowly turn the adjusting spindle in clockwise direction. The grinding intensity is reduced.

5.1.5 Adjusting Screw for Dressing the Grinding Wheel

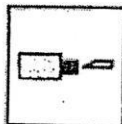


Use this adjusting screw (3), see Figure 10: Details of the Machine-front view (page 33) to dress the grinding wheel. The grinding wheel should be dressed about twice a day depending on the material to be treated in order to prevent a clogging of the grinding wheel and to sharpen it.

Dressing Process

For this purpose, the adjusting screw is lightly pressed to the inside and turned to the limit stop. Thus, the grinding wheel is dressed on its complete width.

5.1.6 Opening for Blunting and Deburring the Bellknife



Deburring the knife is absolutely mandatory to obtain a satisfactory separation cut. This opening is required for blunting the knife and / or for deburring its inside by means of the supplied oil stone. Please refer to Chapter 4.2: Accessory Parts (page 11).

5.1.7 Adjusting Screw for Adjusting the Contact

Pressure of the Feed Roll



The contact pressure of the feed roll is adjusted by means of this adjusting screw (1), see Figure 10: Details of the Machine-front view (page 33). The contact pressure is increased by turning the adjusting screw in a clockwise direction, whereas it is reduced by turning the adjusting screw in a counterclockwise direction.

5.1.8 Adjusting Screw for Adjusting the Feed Roll Distance

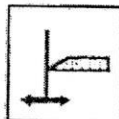


The distance between the feed roll and the knife edge is reduced or increased with this adjusting screw (2), see Figure 10: Details of the Machine-front view (page 33).

The following reference values must be observed:

Emery feed roll	The emery feed roll should be adjusted in parallel alignment with the knife. The skiving distance between the emery feed roll and the knife is 0.1mm.
Steel feed roll	The distance between knife edge and feed roll should be at least 0.2mm

5.1.9 Adjusting Spindle for the Knife Infeed



By turning the adjusting spindle (11), see Figure 10: Details of the Machine-front view (page 33), of the knife infeed in a counterclockwise direction the bellknife is moved closer to the presser foot.

6 Cleaning and Maintenance Work

The following cleaning work must be carried out daily, please refer to Chapter 10: Cleaning and Maintenance Schedule (page 35).

Switch off the machine

Clean the machine

Readjust the scrap ejector

Further information is provided in Chapter 6.1.1: Replacing the Bellknife (page 17).

In order to guarantee optimum functioning of the machine, the following maintenance work must be carried out within the indicated intervals. For more information, please refer to Chapter 10: Cleaning and Maintenance Schedule (page 35). The mechanical maintenance work must only be carried out by skilled personnel.

All ball bearings of the machine are covered and therefore maintenance-free.
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Weekly Work

The following maintenance work must be carried out weekly:

- Clean and lubricate the knife infeed.
- Clean and lubricate the grinding infeed.
- Lubricate the flat bearing of the guide head.
- Clean the grinding area.

Monthly Work

The disassembly and assembly of machine parts which is required for these maintenance tasks will be described in detail in Chapter 6.1:

Assembly and Disassembly of Machine Parts.

- Clean and lubricate the point suspension of the feed shaft bearing arm.
- Check the belts and the belt tensions and, if necessary, replace them by new ones.

6.1 Assembly and Disassembly of Machine Parts

6.1.1 Replacing the Bellknife

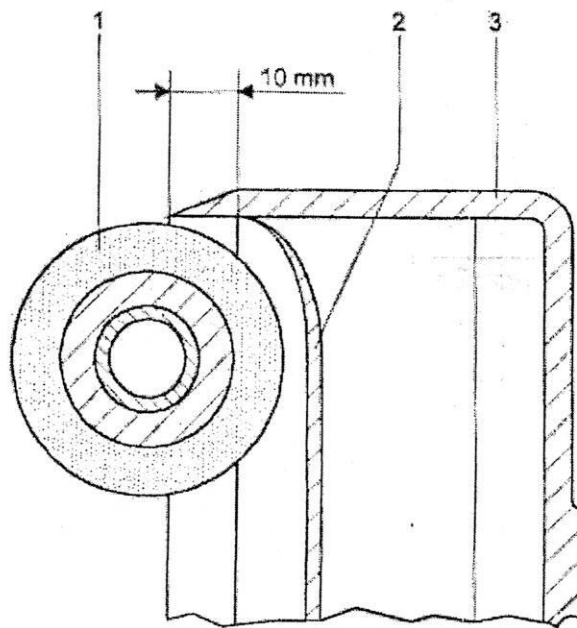


Step-by-step Procedure	Detailed Instructions
Blunt bellknife	Figure 11:Details of the Machine-lateral view (page 34) : With the machine running, insert oil stone (no. 7.02.21.535) in borehole (3) . Thus the knife edge will be blunt.
Switch off machine	
Remove presser foot	See Figure 10:Details of the Machine-front view (page 33) . Turn eccentric lever (8) upwards.
Stop grinding wheel	The grinding wheel is stopped by turning the grinding infeed (12) in a clockwise direction.
Move bellknife to final position	The bellkinfe is moved to the right final position by turning the knife infeed (11) in a clockwise direction.
Unmount feed shaft bearing arm	Figure 11: Details of the Machine-lateral view (page 34) : <ul style="list-style-type: none"> • Remove cover plate (2) • Reduce the spring tension by means of adjusting screw (6) Figure 5: Feed roll (page 22) : <ul style="list-style-type: none"> • Open the cheese head screw (8) and pull the center punch (9) backwards. • Remove the feed shaft bearing arm (1)
Remove the scraper	Figure 2: Knife guidance (page 13) : <ul style="list-style-type: none"> • Open cheese head screw and unmount the scraper (10) .
Remove driving belt	<ul style="list-style-type: none"> • Unscrew attaching screw. • Remove right cover plate. • Remove driving belt.
Lift up machine to the rear	
Remove scrap ejector bin	Figure 11: Details of the Machine-lateral view (page 34) : Fasten the knife shaft with locking tension pin (5) and remove the scrap ejector bin by means of the head wrench with T- handle which is part of the delivered accessory parts.

Prior to the assembly of the scrap ejector bin ensure that the measure of 10mm is observed. Please refer to Figure 3: Scrap ejector bin (page 25).

Disassemble bellknife	<ul style="list-style-type: none"> • Loosen the attaching screws at the bellknife. • Remove knife. • Clean fitting surface of knife driving shaft.
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Assemble new bellknife	The reassembly of the new bellknife is carried out in reverse order.
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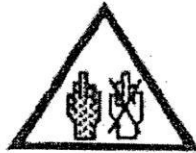
1, Feed roll 2, Scrap ejector bin 3, Bellknife

Figure 3: Scrap ejector bin

6.1.2 Replacing the Grinding Wheel

Step-by-step Procedure	Detailed Instructions
Blunt bellknife	Figure 11:Details of the Machine-lateral view (page 34) : With the machine running, insert oil stone (no. 7.02.21.535) in borehole (3) . Thus the knife edge will be blunt.
Switch off machine	

Remove presser foot	See Figure 10:Details of the Machine-front view (page 33) . Turn eccentric lever (8) upwards.
Stop grinding wheel	The grinding infeed in clockwise direction.
Move bellknife to final position	The bellknife is moved to the right final position by turning the knife infeed (11) in a clockwise direction.

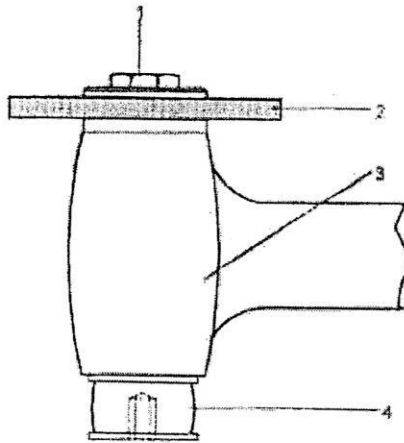


Remove feed shaft bearing arm	Figure 11: Details of the Machine-lateral view (page 34) : <ul style="list-style-type: none"> • Remove cover plate (2) • Reduce the spring tension with adjusting screw (6) Figure 5: Feed roll (page 22) : <ul style="list-style-type: none"> • Open the cheese head screw (8) and pull the center punch (9) backwards. • Remove the feed shaft bearing arm (1)
Remove driving belt	<ul style="list-style-type: none"> • Unscrew attaching screw. • Remove the right cover plate. • Remove the driving belt.
Lift up machine to the rear	
Move back grinding device	Turn grinding infeed in clockwise direction.
Disassemble grinding wheel	Figure 4: Grinding wheel (page 20) : <ul style="list-style-type: none"> • Secure spindle shaft (4) with supplied hexagonal socket-head wrench. • Loosen cover disk with left-hand thread (1) by means of supplied wrench. • Remove grinding wheel (2)

Check the new grinding wheel prior to its installation (check whether the cardboard washers are correctly pasted).
Only use original our company grinding wheels.

Clean grinding wheel flange	
Assemble new grinding wheel	The reassembly of the new grinding wheel is carried out in reverse order.

The grinding wheel must be dressed prior to the first grinding of the knife.



1, Cover disk 2, Grinding wheel 3, Grinding arm 4, Spindle shaft

Figure 4: Grinding wheel

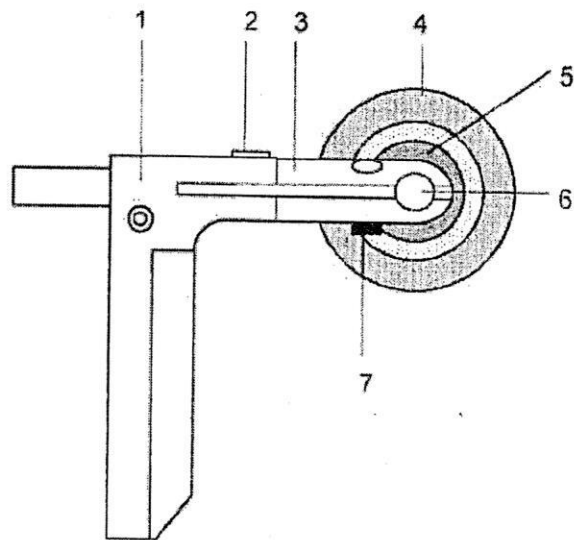
6.1.3 Replacing the Feed Roll



Step-by-step Procedure	Detailed Instructions
Blunt bellknife	Figure 11:Details of the Machine-lateral view (page 34) : With the machine running, insert oil stone (no. 7.02.21.535) in borehole (3) . Thus the knife edge will be blunt.
Switch off machine	
Remove presser foot	See Figure 10:Details of the Machine-front view (page 33) . Turn eccentric lever (8) upwards.
Move bellknife to final position	The bellknife is moved to the right final position by turning the knife infeed (11) in a clockwise direction.



Disassemble feed shaft bearing arm	<p>Figure 11: Details of the Machine-lateral view (page 34) :</p> <ul style="list-style-type: none"> • Remove cover plate (2) • Reduce the spring tension by means of adjusting screw (6) <p>Figure 5: Feed roll (page 22) :</p> <ul style="list-style-type: none"> • Open the cheese head screw (8) and pull the center punch (9) backwards. • Remove the feed shaft bearing arm (1)
Disassemble feed roll	<ul style="list-style-type: none"> • Loosen cheese head screw (7) • Remove feed roll (4) with bolt (6) and guard plate (5) .
Assemble new grinding wheel	The reassembly of the new feed roll is carried out in reverse order.
Assemble new feed roll	<ul style="list-style-type: none"> • Introduce drive shaft in feed roll. • Push center punch (9) in the center bore hole of the feed shaft bearing arm. • Tighten cheese head screw (8) . <p>Figure 11: Details of the Machine-lateral view (page 34) :</p> <ul style="list-style-type: none"> • Increase the spring tension by means of adjusting screw (6) .
Adjust bellknife	<p>See Figure 10: Details of the Machine-front view (page 33) :</p> <p>Move bellknife to front position by means of knife infeed (11) .</p>
Adjust feed roll	<p>See Figure 5: Feed roll (page 22) .</p> <p>Open cheese head screw (2) to adjust the feed roll parallel with the knife</p>
Mount the cover	



- 1、 Feed shaft bearing arm
- 2、 Cheese head screw
- 3、 Feed roll support
- 4、 Feed roll
- 5、 Guard plate
- 6、 Bolt
- 7、 Cheese head screw
- 8、 Cheese head screw
- 9、 Center punch

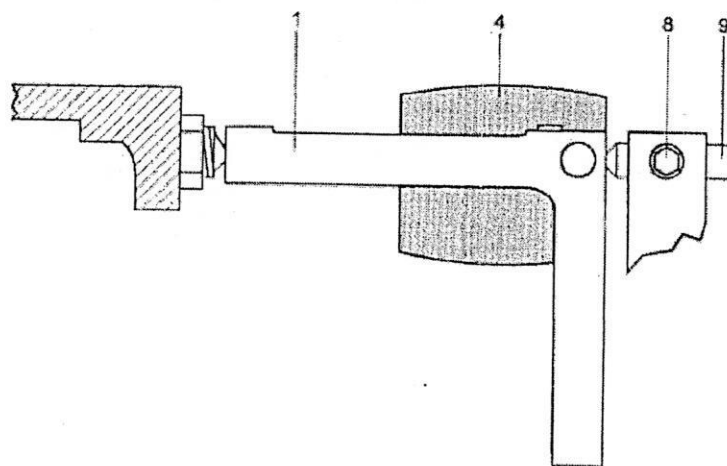
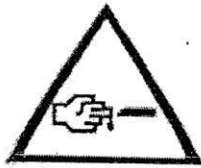


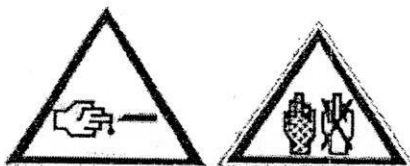
Figure 5: Feed roll

6.1.4 Replacing the Presser Foot

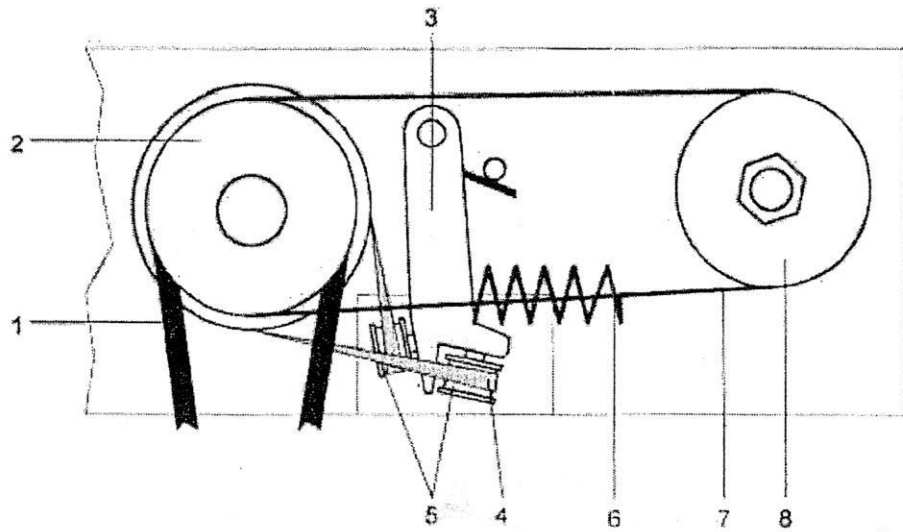


Step-by-step Procedure	Detailed Instructions
Switch off machine	
Remove presser foot	See Figure 10:Details of the Machine-front view (page33): Turn eccentric lever (8) upwards.
Swing leaf spring (6) laterally.	
Disassemble presser foot(5).	<ul style="list-style-type: none"> • Loosen blot(9) of the knurled screw and swing the bolt laterally. • Remove presser foot(5) with conical bolt.
Assemble new presser foot	The reassembly of the new presser foot is carried out in reverse order.

6.1.5 Replacing the Flat Belt



Step-by-step Procedure	Detailed Instructions
Switch off machine	
Remove driving belt.	Figure 6: V-belt (page 24): <ul style="list-style-type: none"> • Loosen the attaching screw and remove right cover plate. • Remove V-belt (1) .
Remove round belt (7)	
Lift up machine to the rear	
Disassemble flat belt	<ul style="list-style-type: none"> • Release spring (6) • Remove flat belt (4)
Assemble new flat belt	The assembly of the new flat belt is carried out in reverse order.



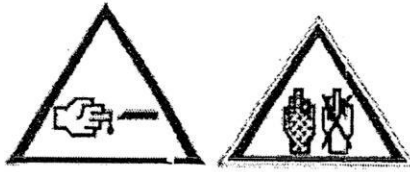
- 1、 V-belt (drive)
- 2、 Step pulley
- 3、 Belt tightener
- 4、 Flat belt
- 5、 Guide pulley
- 6、 Spring
- 7、 Round belt
- 8、 Pulley

Figure 6: V-belt

6.1.6 Replacing the Drive Belt

Step-by-step Procedure	Detailed Instructions
Switch off machine	
Remove driving belt.	Figure 6: V-belt: <ul style="list-style-type: none"> • Loosen attaching screw and remove right cover plate. • Remove V-belt (1) .
Assemble new flat belt	<ul style="list-style-type: none"> • Place V-belt (1) on V-belt (2) . • Place belt (1) by hand on the motor pulley by lightly turning it.
Mount right cover plate	

6.1.7 Replacing the Universal Shaft

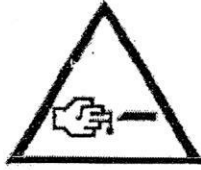


Step-by-step Procedure	Detailed Instructions
Blunt bellknife	Figure 11: Details of the Machine-lateral view (page 34) : With the machine running, insert oil stone (no. 7.02.21.535) in borehole(3). Thus the knife edge will be blunt.
Switch off machine	
Remove presser foot	See Figure 10: Details of the Machine-front view (page 33) . Turn eccentric lever (8) upwards.
Move bellknife to final position	The bellknife is moved to the right final position by turning the knife infeed (11) in a clockwise direction.

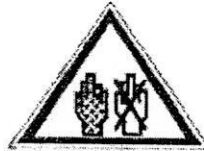
Disassemble feed shaft bearing arm.	Figure 11:Details of the Machine-lateral view (page 34) : <ul style="list-style-type: none"> • Remove the cover plate (2) • Reduce the spring tension by means of adjusting screw (6) See Figure 5: Feed roll (page 22): <ul style="list-style-type: none"> • Open cheese head screw (8) and draw center punch (9) to the rear. • Remove feed shaft bearing arm (1)
Remove drive belt	Figure 6: V-belt (page 24): <ul style="list-style-type: none"> • Loosen the attaching screw and remove the right cover plate. • Remove V-belt (1) .
Lift up machine to the rear	
Disassemble universal shaft	Figure 9: Feed drive (page 31): <ul style="list-style-type: none"> • Loosen threaded pin (2) and remove universal shaft (5) with universal joint from shaft (6) • Loosen threaded pin(4)at universal joint (3) and pull out universal shaft (5)

Assemble new universal shaft	The assembly of the new universal shaft is carried out in reverse order.
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6.1.8 Replacing the Slide Sleeve at the Knife Shaft

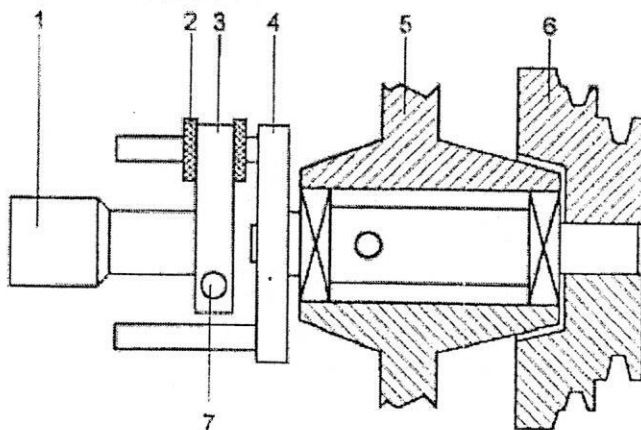


Step-by-step Procedure	Detailed Instructions
Blunt bellknife	Figure 11: Details of the Machine-lateral view (page 34) : With the machine running, insert oil stone (no. 7.02.21.535) in borehole(3). Thus the knife edge will be blunt.
Switch off machine	
Remove presser foot	See Figure 10: Details of the Machine-front view (page 33) . Turn eccentric lever (8) upwards.
Stop grinding device	Turn the adjusting screw for the grinding device (12) in clockwise direction.
Remove knife cover (4)	



Disassemble feed shaft bearing arm.	Figure 11:Details of the Machine-lateral view (page 34) : <ul style="list-style-type: none"> • Remove the cover plate (2) • Reduce the spring tension by means of adjusting screw (6) Figure 5: Feed roll (page 22): <ul style="list-style-type: none"> • Open cheese head screw (8) and draw center punch (9) to the rear. • Remove feed shaft bearing arm (1)
Remove scraper	Figure 2: Knife guidance (page 13): <ul style="list-style-type: none"> • Open cheese head screw and dismount scraper (10)
Remove drive belt	Figure 6: V-belt (page 24): <ul style="list-style-type: none"> • Loosen the fastening screw and remove the right cover. • Remove V-belt (1) .

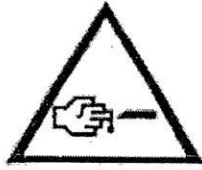
Lift up machine to the rear	
Disassemble slide sleeve	<p>See Figure 7:Clutch:</p> <ul style="list-style-type: none"> • Use the knife adjustment device to drive the knife shaft(8)to the left until there is a gap of at least 20mm between clutch disk (3) and clutch (4) . • Loosen cheese head screw (7) . • Remove clutch disk(3) from the knife shaft (1). • Remove slide sleeve (2).
Assemble new slide sleeve	The assembly of the new slide sleeve is carried out in reverse order.
Assemble machine	The assembly of the machine is carried out in reverse order.



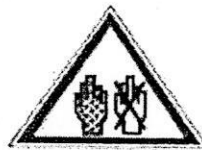
- 1、 Knife shaft
- 2、 Slide sleeve
- 3、 Clutch disk
- 4、 Clutch
- 5、 Housing
- 6、 Step pulley
- 7、 Cheese head screw

Figure 7: Clutch

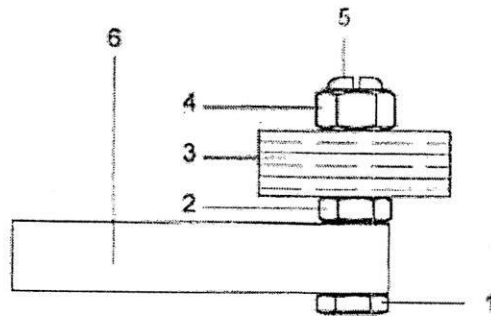
6.1.9 Replacing the Dressing Wheel



Step-by-step Procedure	Detailed Instructions
Blunt bellknife	Figure 11: Details of the Machine-lateral view (page 34) : With the machine running, insert oil stone (no. 7.02. 21.535) in borehole (3) . Thus the knife edge will be blunt.
Switch off machine	
Remove knife cover (4)	
Stop grinding device	See Figure 10: Details of the Machine-front view (page 33) . Turn the adjusting screw for the grinding device (12) in clockwise direction.



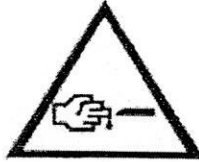
Dismount dressing wheel	See Figure 8: Dressing wheel (page 29): <ul style="list-style-type: none"> • Loosen hexagon nut (1) and unscrew cheese head screw (5) . • Loosen hexagon nut (4) from bushing (2) and unscrew it. • Remove dressing wheel (3) .
Assemble new dressing wheel	See Figure 8: Dressing wheel (page 29): <ul style="list-style-type: none"> • Slide dressing wheel (3) on bushing (2) . • Screw down hexagon nut (4) . • Tightly screw down cheese head screw (5) with dressing device in support (6); afterwards, unscrew 1/4 rotation. • Fix by hexagon nut (1) . The dressing device must turn easily now; repeat the procedure if necessary.
Mount knife cover (4)	Figure 10: Details of the Machine-front view (page 33) .



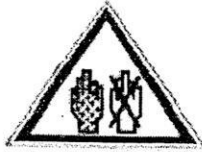
- 1、 Hexagon nut
- 2、 Bushing
- 3、 Dressing wheel
- 4、 Hexagon nut
- 5、 Cheese head screw
- 6、 Support

Figure 8: Dressing wheel

6.1.10 Replacing the Worm and the Worm Wheel

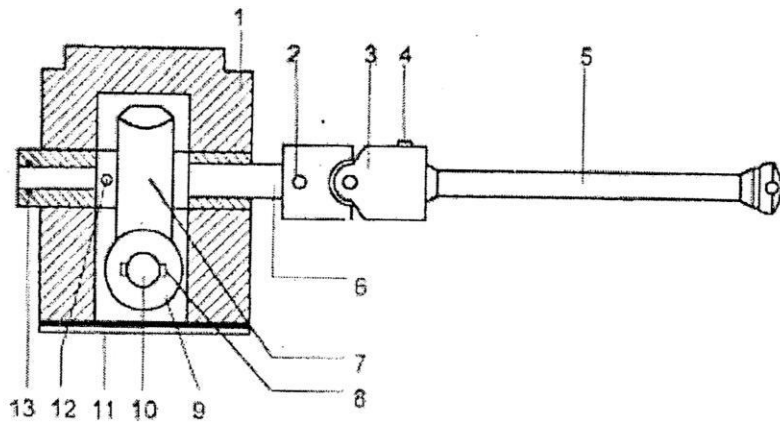


Step-by-step Procedure	Detailed Instructions
Blunt bellknife	Figure 11: Details of the Machine-lateral view (page 34) : With the machine running, insert oil stone (no. 7.02. 21.535) in borehole (3) .Thus the knife edge will be blunt.
Switch off machine	
Remove presser foot	Figure 10: Details of the Machine-front view (page 33) . Turn eccentric lever (8) upwards.
Remove knife cover (4)	



Disassemble feed shaft bearing arm.	Chapter 6.1.3: Replacing the Feed Roll (page 20) .
Remove grinding wheel	Chapter 6.1.2: Replacing the Grinding Wheel (page 18) .
Remove drive belt and round belt	Chapter 6.1.6: Replacing the Drive Belt (page 24) .
Lift up machine to the rear	
Disassemble universal shaft	Chapter 6.1.7: Replacing the Universal Shaft (page 25) .

Disassemble worm and worm wheel	<p>Figure 9: Feed drive (page 31):</p> <ul style="list-style-type: none"> • Loosen the 4 flat head screws at the cover (11) and remove the cover together with the seal. • Loosen the threaded pins (8) and unscrew them. • Open the nut (18) at the drive shaft (10) and remove disk (17) and pulley (16) . • Remove Seeger circlip ring (15) . • Remove drive shaft (10) with ball bearing (14) . • Remove worm (9) . • Open and unscrew threaded pin (12) . • Remove shaft (6) and take out worm wheel (7) .
Assemble worm and worm wheel	The assembly is carried out in reverse order.
Assemble machine	The assembly is carried out in reverse order.



- 1, Housing 2, Threaded pin 3, Universal joint 4, Threaded pin
 5, Universal shaft 6, Shaft 7, Worm wheel 8, Threaded pin
 9, Worm 10, Shaft 11, Cover 12, Threaded pin 13, Sealing ring
 14, Ball bearing 15, Seeger circlipring 16, Pulley 17, Disk
 18, Hexagonal cap nut

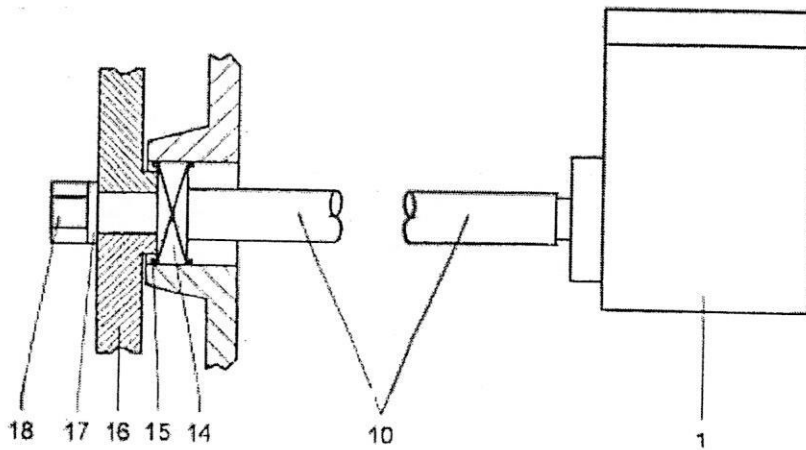


Figure 9: Feed drive

7 Spare Parts List

We recommend that you use only original our company spare parts. The order numbers are listed in spare parts list supplied with the machine. For the correct execution of your order, please kindly order the spare parts number indicated in the parts manual (including the safety symbols of machine) .

8 Trouble Shooting

8.1 Bad Skiving Results

Cause	Elimination
Bellknife is blunt.	Regrind bellknife.
Knife has a burr inside.	Remove burr with emery feed roll or oil stone.
Increased inside knife chamfer.	Regrind bellknife.
Grinding wheel is blunt and/or clogged.	Dress grinding wheel.
Adjustment of the bellknife is incorrect.	Readjust distance to presser foot.
Presser foot is worn.	Replace presser foot by a new one.
Stop is worn.	Replace stop by a new one.
Play in flat bearing of guide head.	Readjust flat bearing.

8.2 Insufficient Feeding

Cause	Elimination
Feeding power too low.	Increase feeding power.
Feed roll is worn.	Replace feed roll by a new one.
Feed roll is smudged.	Remove the abraded leather articles from the feed roll with a steel brush.
Bellknife is blunt.	Regrind bellknife.

8.3 Bevels are too thick

Cause	Elimination
Position of presser foot too high.	Change adjustment of the presser foot.
Position of stop is not correct.	Readjust position of stop.
One side of presser foot is worn.	Replace presser foot by a new one.
Feed roll is damaged.	Replace feed roll by a new one.

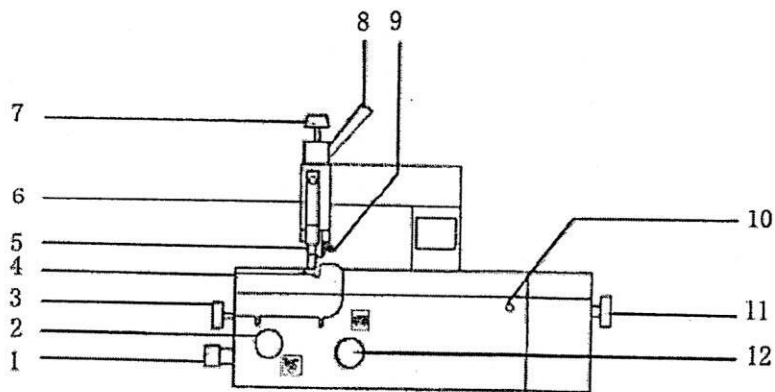
8.4 Insufficient Scrap Removal

Cause	Elimination
Scrap ejector is not adjusted correctly.	Correctly adjust scrap ejector.

8.5 Noisy Operation

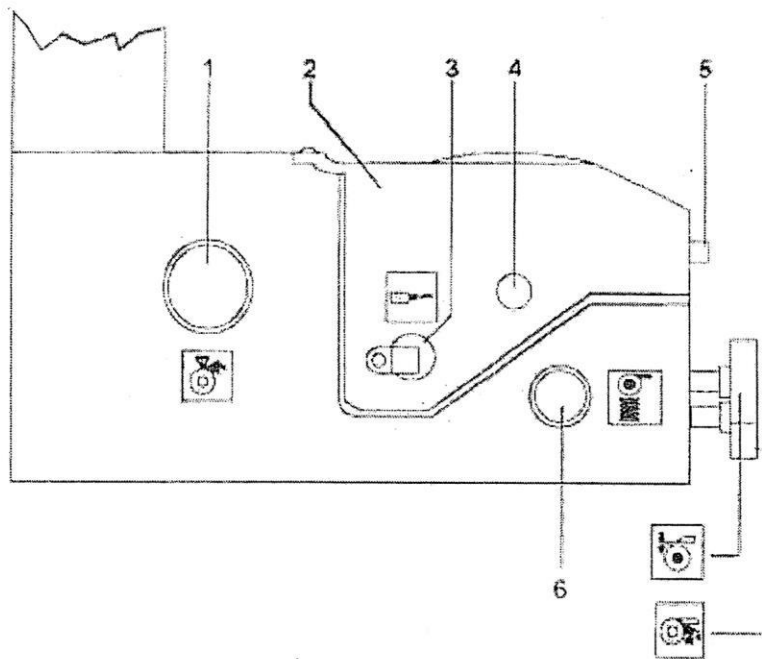
Cause	Elimination
Nylon sliding sleeve of knife drive is worn (chattering noise).	Retighten sliding sleeve and if necessary, replace it by a new one.

9 View and Detail Drawings



- 1、 Adjusting screw contact pressure feed 2、 Adjusting screw for stopping the feed roll 3、 Dressing device grinding wheel 4、 Knife cover 5、 Presser foot 6、 Leaf spring 7、 Adjusting screw 8、 Eccentric lever 9、 Knurled screw with bolt 10、 Locking pin 11、 Knife infeed 12、 Grinding infeed

Figure 10: Details of the Machine-front view



- 1、 Dressing of grinding wheel
- 2、 Cover
- 3、 Borehole for deburring knife
- 4、 Borehole for readjusting the scrap ejector
- 5、 Locking pin
- 6、 Spring tension of the feed roll
- 7、 Stop of the feed roll
- 8、 Grinding infeed
- 9、 Protection device
- 10、 Knife infeed
- 11、 Fastening screw

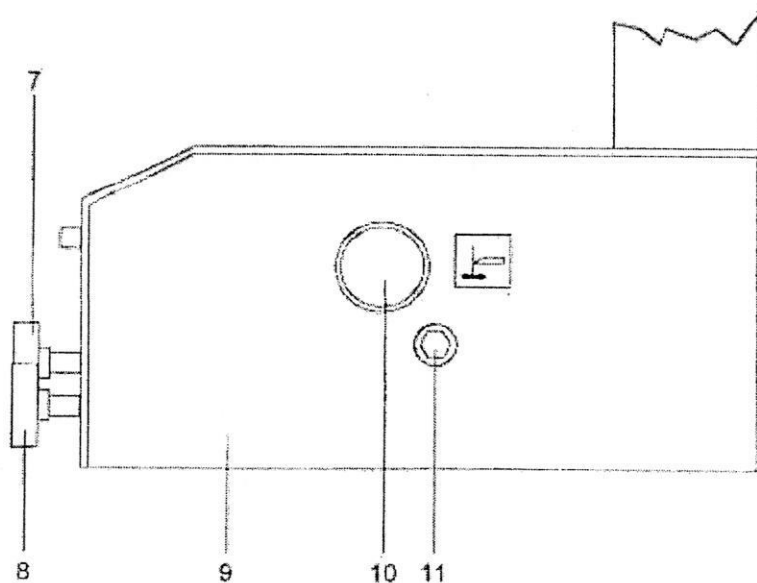


Figure 11: Details of the Machine-lateral view

10 Cleaning and Maintenance Schedule

Cleaning and maintenance work to be carried out	Daily	Weekly	Monthly
Clean machine	✓		
Readjust scrap ejector	✓		
Clean and lubricate knife infeed.		✓	
Lubricate flat bearing of guide head.		✓	
Clean grinding zone		✓	
Clean and lubricate point suspension of the feed shaft bearing arm.			✓
Check belts and belt tensions and if they are worn, replace them by new ones.			✓

GLOBAL

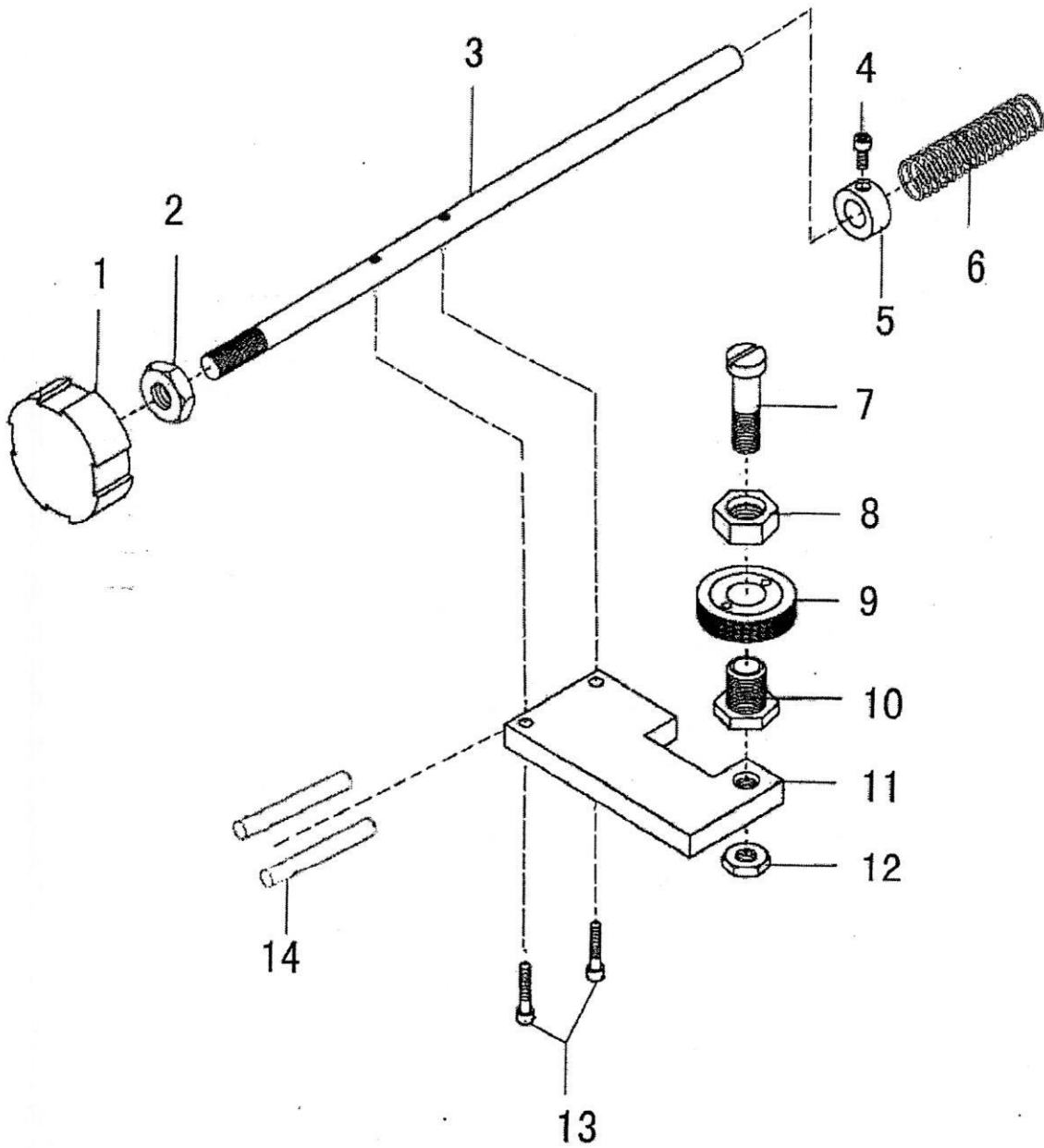
SKIVING MACHINE

SPARE PART LIST

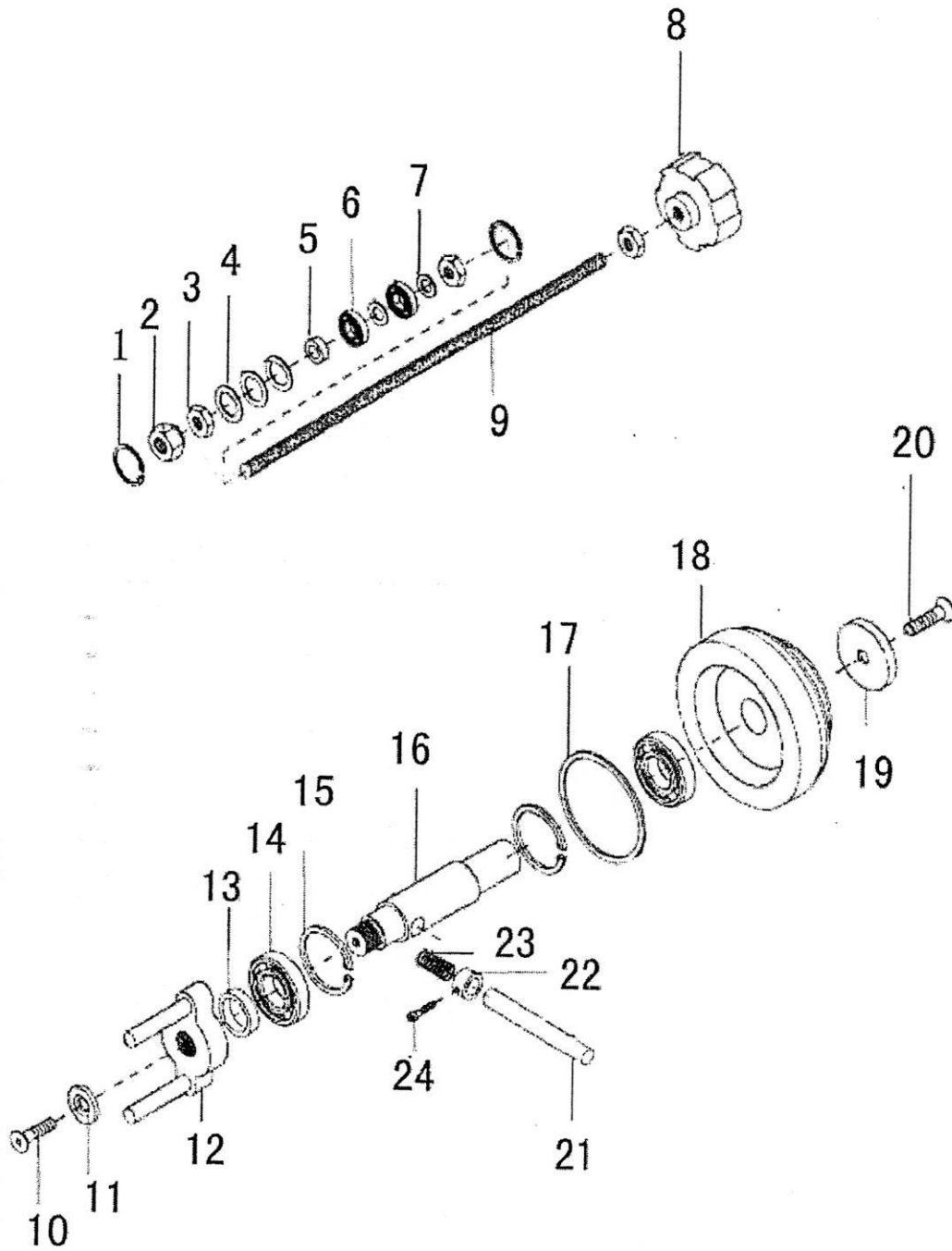
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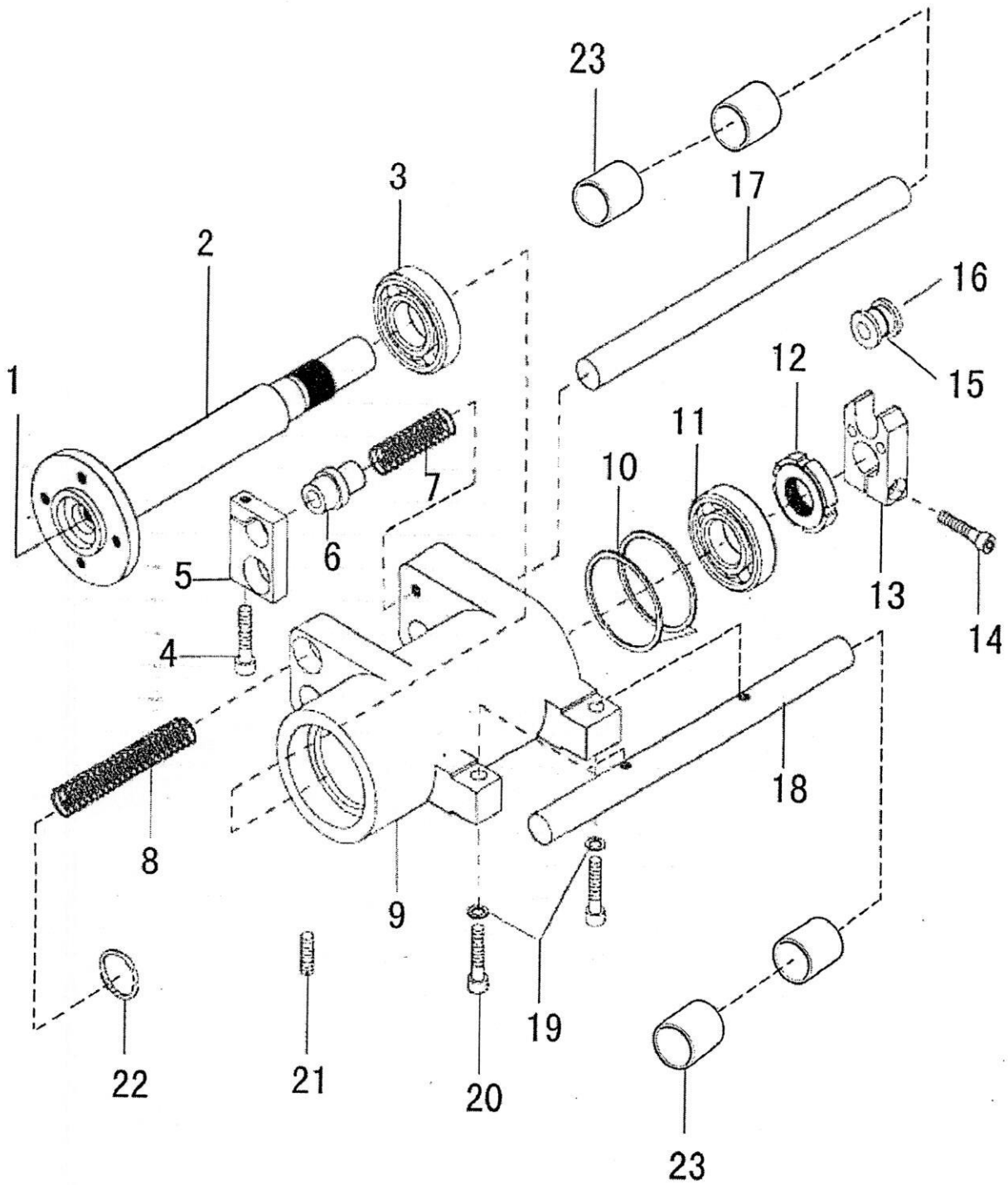
A. DRESSING DEVICE



B. KNIFE SHAFT ADJUSTMENT



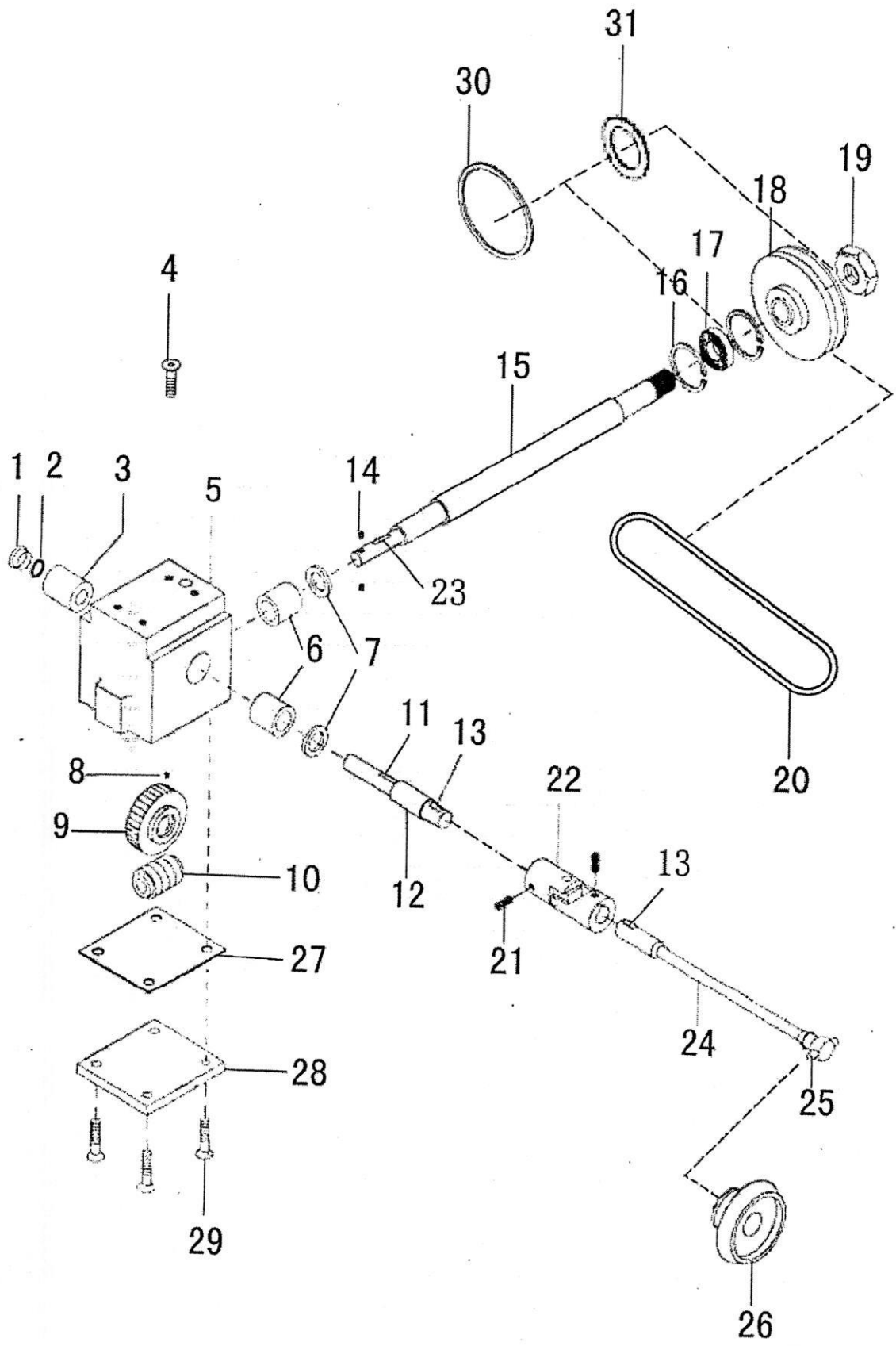
C. KNIFE SHAFT



D. WORM WHEEL HOUSING AND FEED SHAFT

No.	Part No.	Name	Qty	Remark
D1	7.02.11.530	Helmet	1	
D2	7.02.16.484	O-Ring	1	Φ8.8-Φ12.8
D3	7.02.08.505	Bushing	1	
D4	7.02.15.1040	Countersunk screw	4	M5×10
D5	7.02.13.418	Worm wheel housing	1	
D6	7.02.08.504	Bushing	2	
D7	7.02.16.480	Sealing ring	2	
D8	7.02.15.1065	Threaded pin	1	M4×5
D9	7.02.07.303	Feed worm wheel shaft	1	
D10	7.02.03.449	Triple thread feed worm	1	
D11	7.02.10.482	Key	2	
D12	7.02.03.448	Feed worm wheel shaft	1	
D13	7.02.10.490	Key	1	
D14	7.02.15.1065	Threaded pin	2	M4×5
D15	7.02.03.447	Feed shaft	1	
D16	7.02.18.250	Safety ring	2	Φ28
D17	7.02.04.185	Grooved ball bearing	1	6001-2Z
D18	7.02.07.302	Belt pulley	1	
D19	7.02.15.1041	Hex. Nut	1	M12
D20	7.02.07.308	Belt	1	
D21	7.02.15.047	Threaded pin	2	M4×4
D22	7.02.01.401	Ball joint	1	
D23	7.02.10.491	Key	1	
D24	7.02.03.450	Feed drive shaft	1	
D25	7.02.10.484	Pin	1	
D26	7.02.16.481	Collar	1	
D27	7.02.16.482	Seal	1	
D28	7.02.11.531	Cover	1	
D29	7.02.15.1040	Countersunk screw	4	M5×10
D30	7.02.18.384	Rippled washer	1	Φ21.2-Φ26.7×0.4
D31	7.02.18.385	Washer	1	Φ13-Φ24×2.5

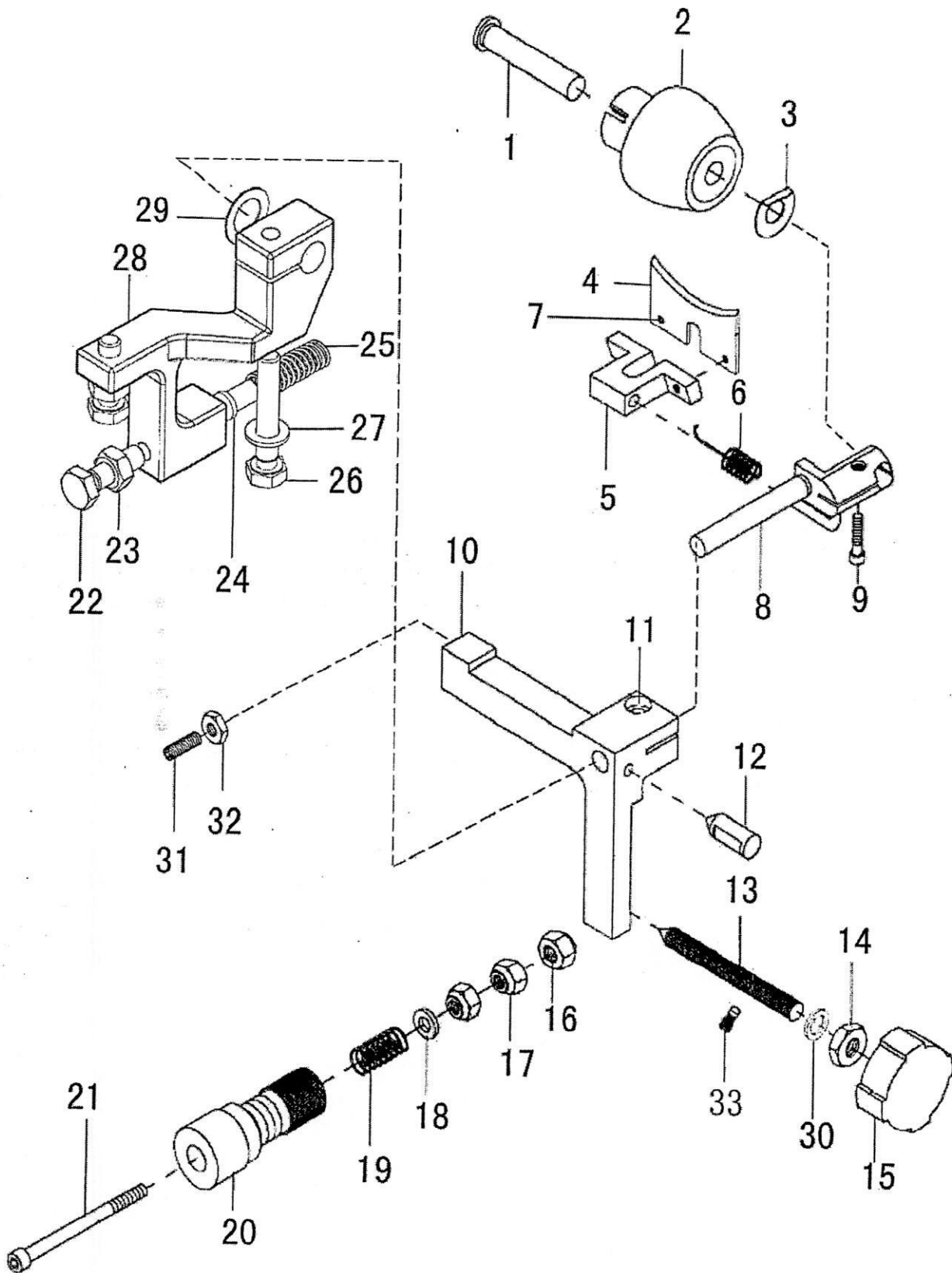
D. WORM WHEEL HOUSING AND FEED SHAFT



E. FEED ROLL AND ADJUSTING DEVICE

No.	Part No.	Name	Qty	Remark
E1	7.02.03.451	Bolt	1	
E2	7.02.07.304	Feed roll	1	
E3	7.02.18.375	Disk	1	(Φ10.1-Φ22) ×0.5
E4	7.02.02.580	Scraper	1	
E5	7.02.13.413	Scraper holder	1	
E6	7.02.17.444	Rotary spring	1	
E7	7.02.15.1042	Countersunk screw	2	M3×6
E8	7.02.13.414	Feed roll carrier	1	
E9	7.02.15.1043	Cyl.screw	1	M6×10
E10	7.02.13.416	Feed shaft bearing bracket	1	
E11	7.02.15.1044	Cyl.screw	1	M6×16
E12	7.02.10.485	Bearing bolt	1	
E13	7.02.05.471	Setting rod	1	
E14	7.02.15.1033	Hex.nut	2	M8×1.25×4
E15	7.02.05.470	Handle	1	
E16	7.02.15.1058	Nut	1	
E17	7.02.15.1073	Hex.nut	1	M6
E18	7.02.18.322	Washer	1	Φ6.4-Φ11.5
E19	7.02.17.445	Pressure spring	1	
E20	7.02.05.473	Spring screw	1	
E21	7.02.15.1046	Cyl.screw	1	M6×65
E22	7.02.15.1047	Hex.nut	2	M6×20
E23	7.02.15.1045	Hex.nut	3	M6
E24	7.02.10.487	Bolt	1	
E25	7.02.17.449	Pressure spring	1	
E26	7.02.15.1048	Hex.screw	1	M6×35
E27	7.02.18.322	Washer	1	Φ6.4-Φ11.5
E28	7.02.13.423	Swinging arm	1	
E29	7.02.18.386	Washer	3	Φ10-Φ16×0.5
E30	7.02.18.387	Washer	1	Φ8.5-Φ15.7
E31	7.02.15.1057	Bolt	1	
E32	7.02.21.397	Hex.nut	1	M8
E33	7.02.17.447	Adjusting spring assy.	1	
E34	7.02.15.1038	Setting screw	1	M6X25

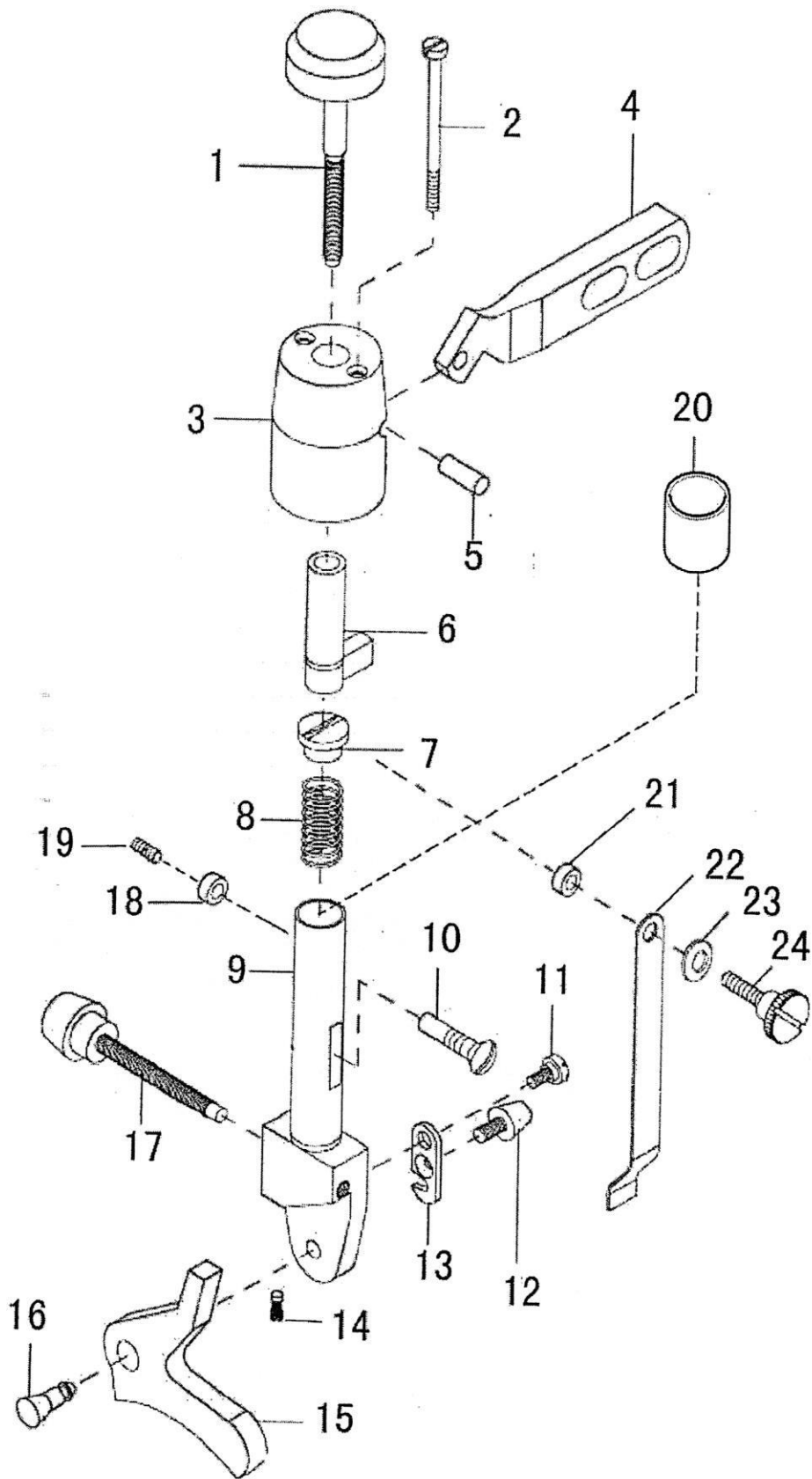
E. FEED ROLL AND ADJUSTING DEVICE

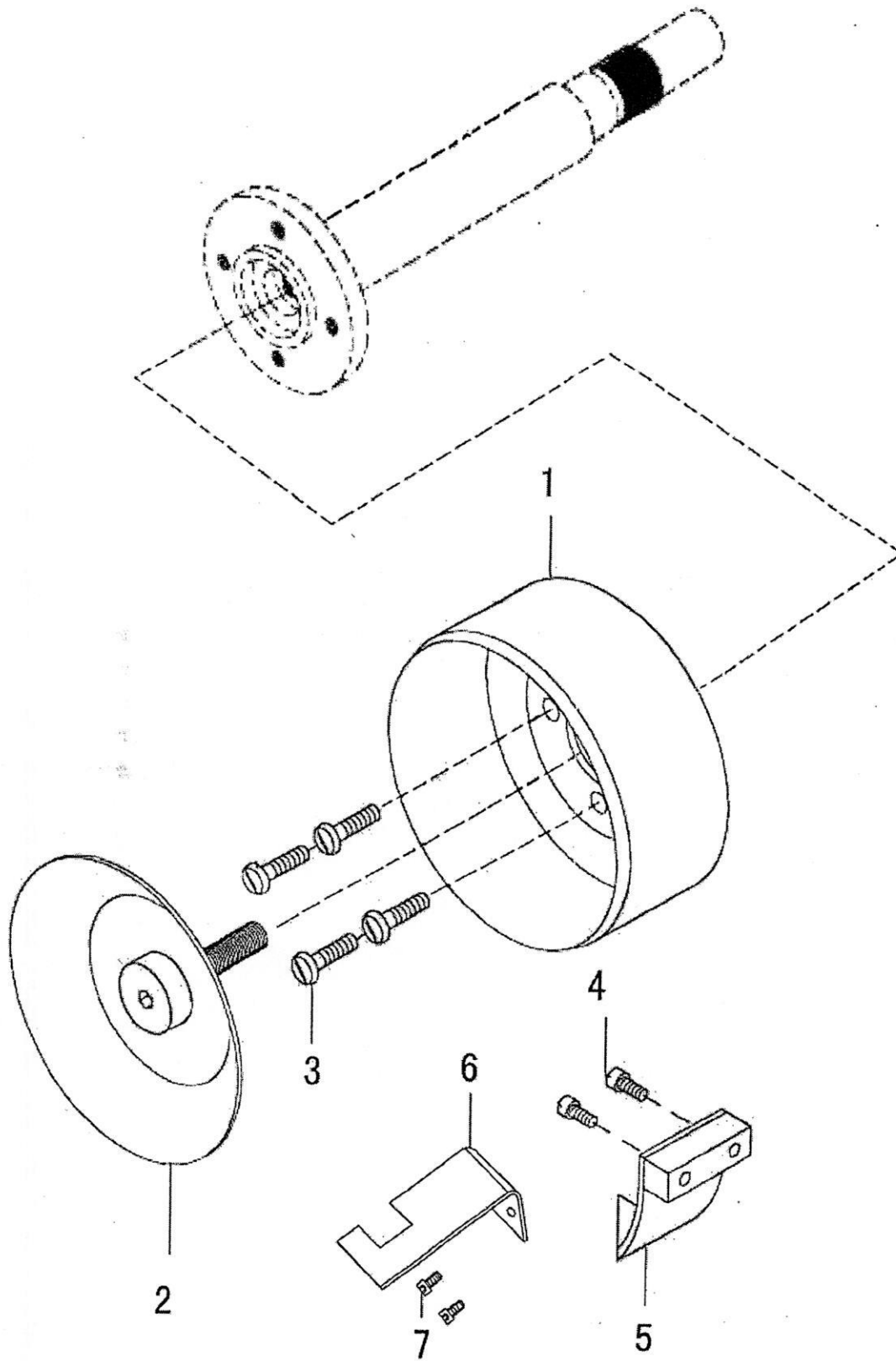


F. STILTED LIFTING

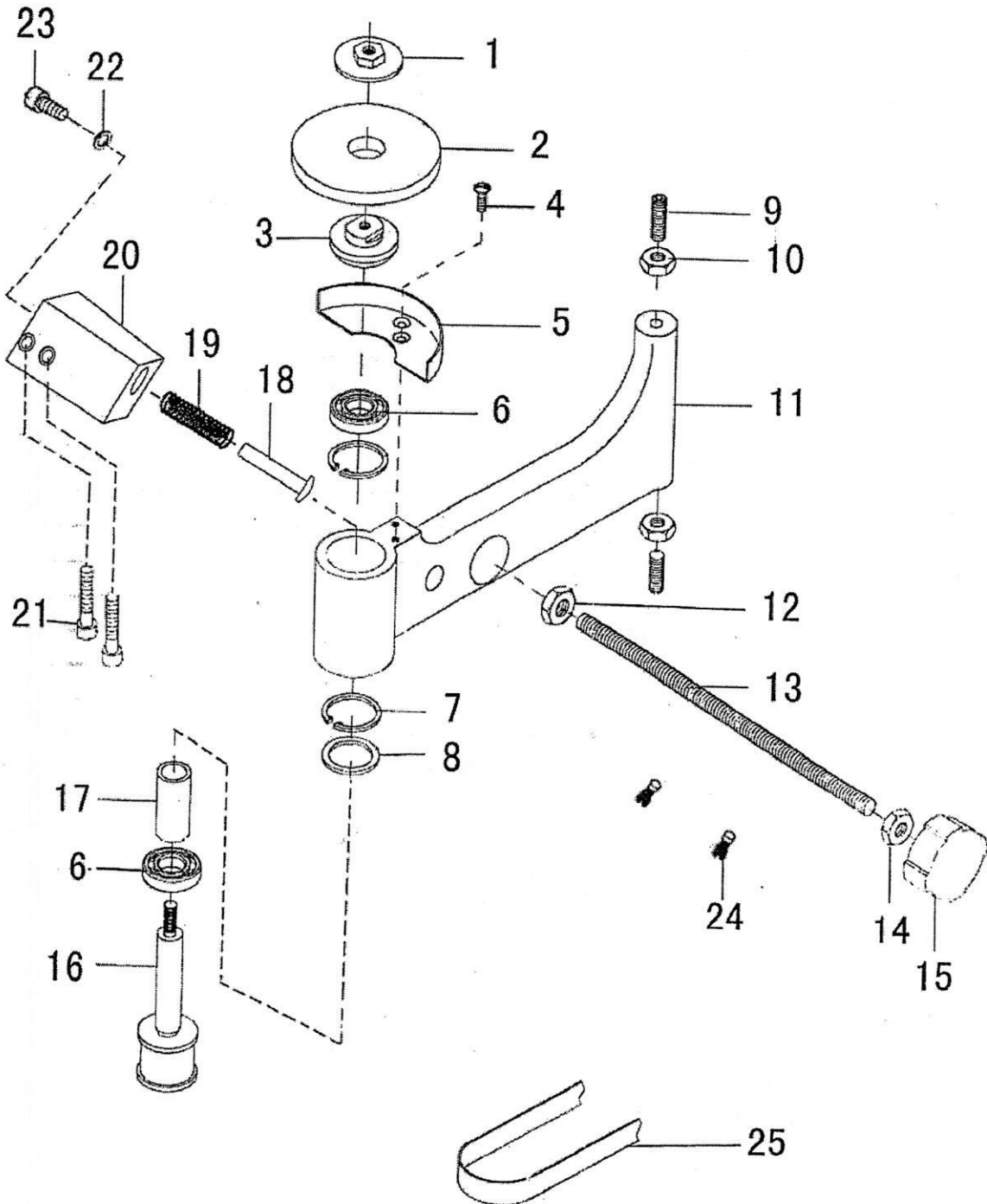
No.	Part No.	Name	Qty	Remark
F1	7.02.05.474	Setting screw	1	
F2	7.02.15.1059	Cyl.screw	2	M4×55
F3	7.02.11.532	Cover	1	
F4	7.02.05.475	Eccentric lever	1	
F5	7.02.21.175	Cyl.pin	1	
F6	7.02.05.476	Slide rod	1	
F7	7.02.15.1060	Face hole screw	1	
F8	7.02.17.446	Pressure spring	1	
F9	7.02.03.452	Guide rod	1	
F10	7.02.15.1061	Countersunk screw	1	
F11	7.02.15.1062	Cyl.screw	1	
F12	7.02.05.478	Knurled screw	1	
F13	7.02.05.485	Lick	1	
F14	7.02.17.447	Counter pin	1	
F15	7.02.02.581	Presser foot	1	
F16	7.02.05.479	Tapered bolt	1	
F17	7.02.05.477	Knurled screw	1	
F18	7.02.03.453	Copper cylinder	1	
F19	7.02.15.1049	Setting screw	1	M8×8
F20	7.02.08.502	Bushing	1	
F21	7.02.18.374	Washer	1	
F22	7.02.17.448	Leaf spring	1	
F23	7.02.18.390	Cup spring	1	Φ6.2-Φ12.2
F24	7.02.15.1063	Countersunk screw	1	
F25	7.02.15.1050	Setting screw	2	M5×12
F26	7.02.15.1051	Cyl.screw	2	M5×16

F. STILTED LIFTING

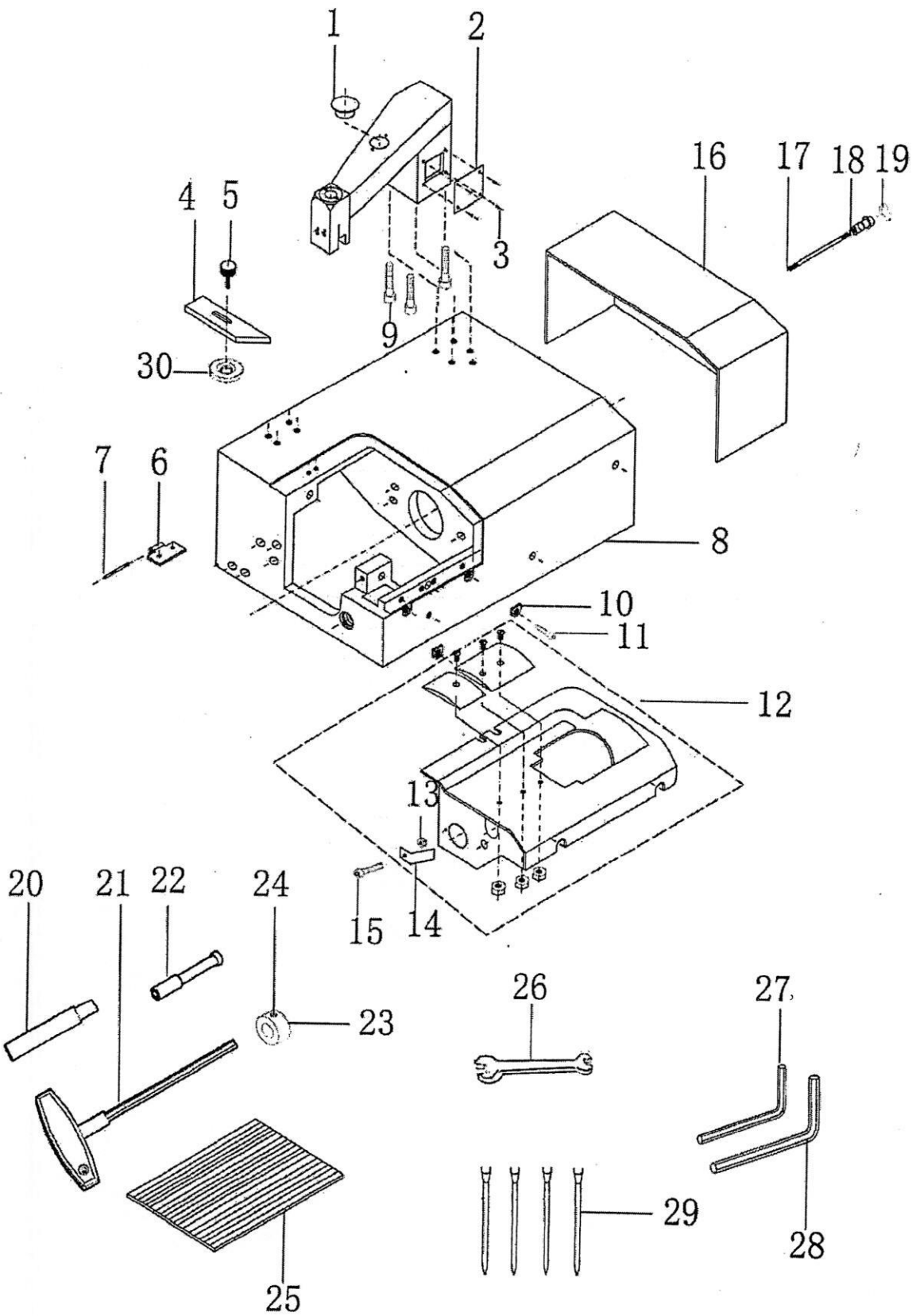


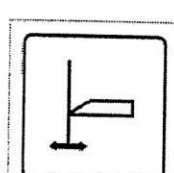
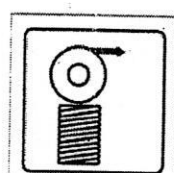
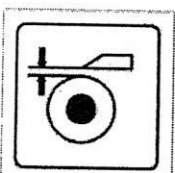
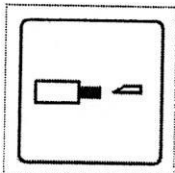
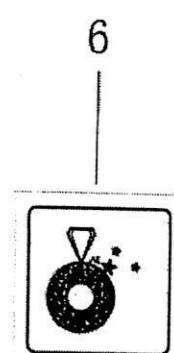
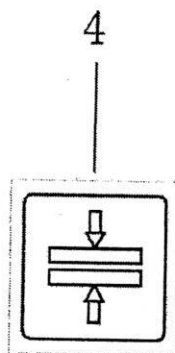
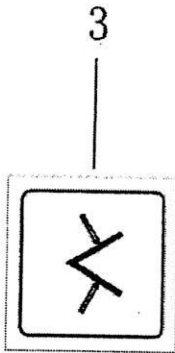
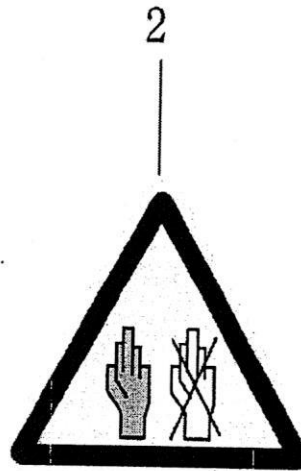
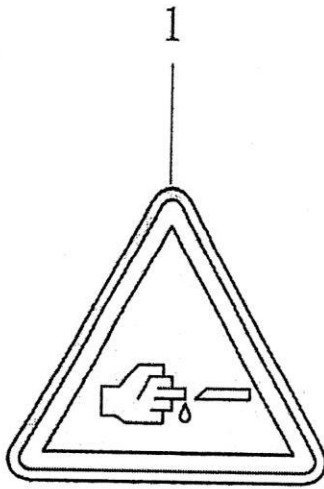


H. GRINDING DEVICE



J. OPERATING PLATFORM AND ACCESSORIES



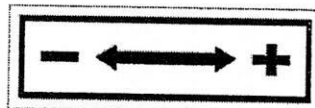


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