

# Operator's manual



**TruTool TKF 1100** (1A1)  
**TruTool TKF 1101** (1A1)

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## 1. Safety

### 1.1 General safety information

 **WARNING**



- Read all the safety information and instructions including those in the brochure also supplied.
- Failure to comply with the safety information and instructions can cause electric shock, burns and/or serious injury.
- Retain all the safety information and instructions for future use.

 **DANGER**

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#### Electrical voltage! Risk of fatal injury due to electric shock!

- Remove the plug from the plug socket before undertaking any maintenance work on the machine.
  - Check the plug, cable and machine for damage each time before using the machine.
  - Keep the machine dry and do not operate it in damp rooms.
  - Connect the fault current (FI) circuit breaker with a maximum breaking current of 30 mA when using the electric tool outside.
  - Only use original TRUMPF accessories.
- 

 **WARNING**

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#### Damage to the machine due to improper handling.

- Wear safety glasses, hearing protection, protective gloves and working shoes when working.
  - Connect the plug only when the machine is switched off. Pull the power plug after use.
  - Do not carry the machine by the cable.
  - Have maintenance carried out by specialists.
- 

### 1.2 Specific safety information for beveler

 **DANGER**

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#### Electrical voltage! Risk of fatal injury due to electric shock!

- Always lay the power cable away from the back of the device and do not pull it over sharp edges.
  - Do not perform any work that may cause the machine to come into contact with hidden power lines or its own cable. Contact with a live conductor can cause metallic machine parts to become live and can lead to an electric shock.
-

 **WARNING****Risk of injury to hands.**

- Do not reach into the processing line with your hands.
- Use both hands to hold the machine.

 **WARNING****Risk of injury from falling machinery**

**The entire weight of the machine must be taken up after machining the workpiece.**

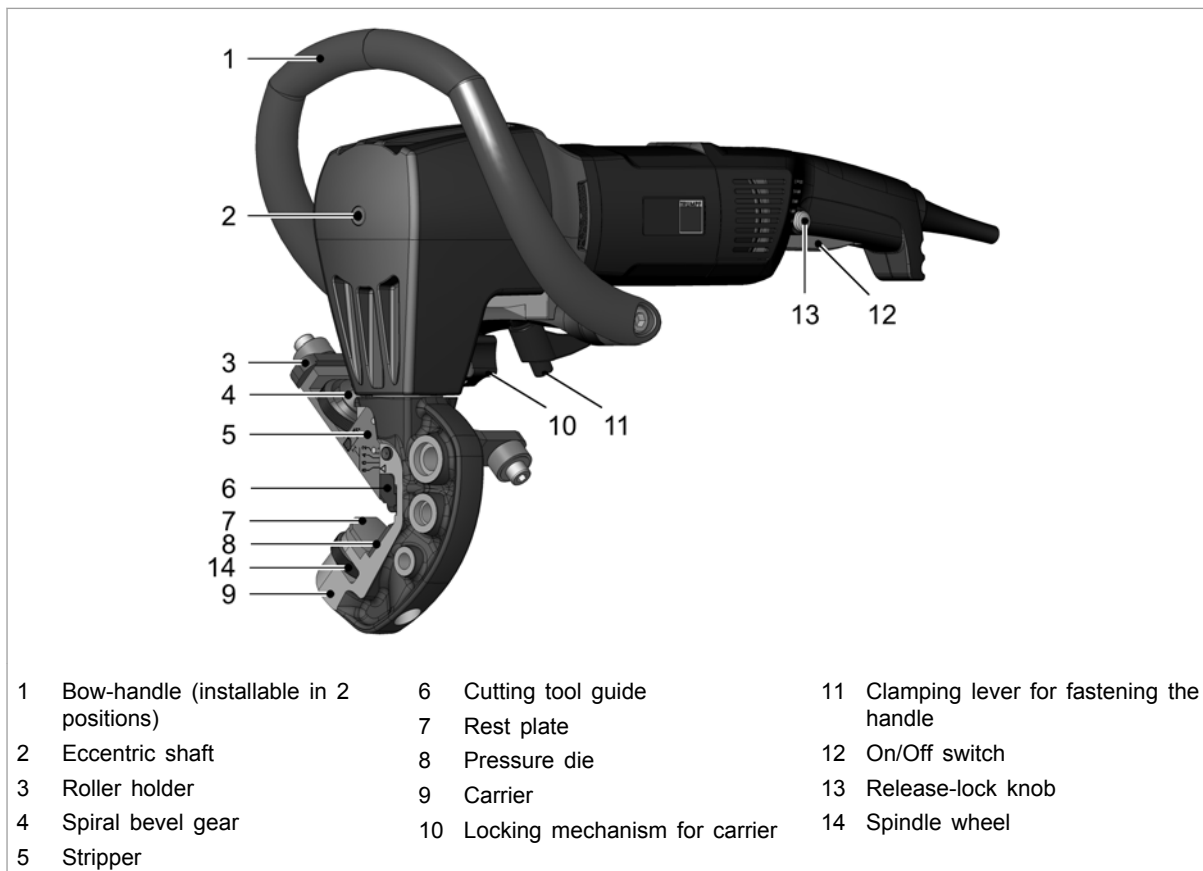
- Use the suspension bracket with balancer.
- Use the suspension cable.

 **CAUTION****Damage to property due to improper handling.**

**Collisions could result from setting the machine incorrectly.**

- Rotate the eccentric shaft one full turn in a clockwise direction using the Allen key provided. If no more collisions occur, remove the Allen key and put the machine into operation in accordance with regulations.

## 2. Description



TruTool TKF 1100 (1A1)/ TruTool TKF 1101 (1A1)

Fig. 39412

### 2.1 Intended use



The TRUMPF TruTool TKF 1100 (1A1)/ TruTool TKF 1101 (1A1) beveler is an electrically powered hand-held device for the following applications:

- Preparation of all K-, V-, X- and Y-shaped welding grooves usual for gas and electrical fusion welding with various continuously adjustable angles of bevel and continuously adjustable lengths of bevels.
- Bevelling of straight and curved edges, provided the minimum radius of the inner curve is 40 mm.
- Bevelling of edges on level and crooked workpieces, in particular tubes with an inside diameter of at least 80 mm.
- Bevelling of edges in both directions, with the bevelling process being able to be started and finished at any point of the sheet edge.
- Bevelling of edges in normal position (carrier below the machine) and in "upside-down position" (carrier above the

- machine), which is of advantage in particular when bevelling X and K welding joints.
- Beveling of edges on large, bulky workpieces by using the beveler as a hand-held device.
  - Forming of uniform, oxide-free, bright metallic welding bevel edges in steel and aluminum.
  - For TruTool TKF 1100: machining of chromium steel and similar high-tensile materials.

## 2.2 Technical data

TruTool TKF 1100 (1A1) /  
TruTool TKF 1101 (1A1)




	Other countries			USA
	Values			
Voltage	230 V	120 V	110 V	120 V
Frequency	50/60 Hz			50/60 Hz
<b>Max. length of bevel "ls" continuously adjustable:</b>				
Mild steel with 400 N/mm <sup>2</sup>	11 mm			0.59 in
Mild steel with 600 N/mm <sup>2</sup>	9 mm			0.354 in
Mild steel with 800 N/mm <sup>2</sup>	6mm			0.236 in
Working speed	2.0 m/min 2.5 m/min			4.1 ft/min 6.55 ft/min
Nominal power consumption	1600 W	1340 W	1500 W	1340 W
Stroke rate with nominal load	340/min 440/min	340/min 440/min	320/min 410/min	340/min 440/min
Idle stroke rate	450/min 650/min	450/min 650/min	440/min 630/min	450/min 650/min
Weight	10 kg			25.7 lbs
<b>Material thicknesses:</b>				
Min.	3mm			0.12 in
Max.	25mm			0.984 in
Angle of bevel "β" continuously adjustable	30°, 37.5°, 45°			30°, 37.5°, 45°
Smallest radius with inner cutouts	40mm			1.57 in
Smallest tube inside diameter	80mm			3.15 in
Safety class	II / 			II / 

Tab. 1

## 2.3 Symbols

### Note

The following symbols are important for reading and understanding the instruction manual. The correct interpretation of the symbols will help you operate the machine better and safer.

Symbol	Name	Meaning
	Read operating manual	Read the operator's manual and safety information in their entirety before starting up the machine. Closely follow the instructions given.
	Safety class II	Indicates a doubly insulated tool.
	Alternating current	Type or property of current
V	Volt	Voltage
A	Ampere	Current, current input
Hz	Hertz	Frequency (oscillations per second)
W	Watt	Power, power input
mm	Millimeters	Dimensions e.g.: material thickness, chamfer length
in	Inch	Dimensions e.g.: material thickness, chamfer length
$n_0$	Idle speed	Revolution speed without load
.../min	Revolutions/strokes per minute	Revolution speed, stroke rate per minute

Tab. 2

## 2.4 Noise and vibration information

### WARNING

**Noise emission value may be exceeded.**

- Wear hearing protection.

### WARNING

**Vibration emission value may be exceeded.**

- Select tools correctly and replace them promptly when they show wear.
- Maintenance may be carried out by trained specialist technicians only.
- Establish additional safety precautions for the protection of the operator against the effects of vibrations (e.g. keeping hands warm, organizing the work sequences, machining with normal feed power).

### Notes

- The specified vibration emission value was measured in accordance with a standardized testing procedure and can be used to compare one electric tool with another.

- The specified vibration emission value can also be applied for a provisional estimate of the vibration load.
- Times during which either the machine is switched off or running but not actually in use can considerably reduce the vibration load during the entire working period.
- Times during which the machine works independently and self-propelled do not have to be calculated.

Designation of measured value	Unit	Value according to EN 60745
Vibration emission value $a_h$ (vector sum of three directions)	m/s <sup>2</sup>	8.2
Uncertainty K for vibration emission value	m/s <sup>2</sup>	2
A-class acoustic pressure level $L_{PA}$ typically	dB (A)	89
A-class acoustic power level $L_{WA}$ typically	dB (A)	100
Uncertainty K for noise emission value	dB	3

Tab. 3



### 3. Setting work

#### 3.1 Adjusting the ram length

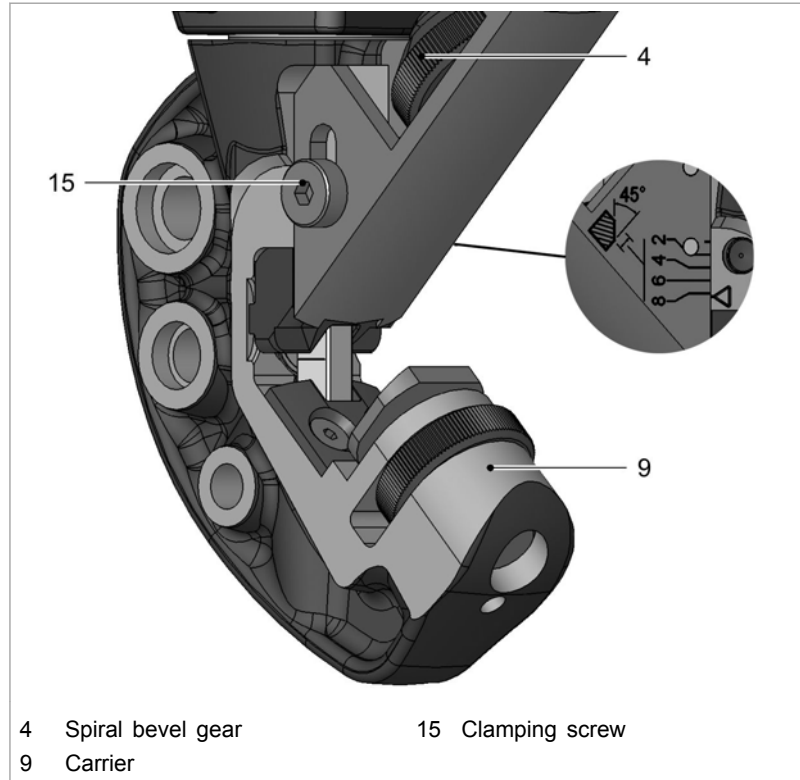
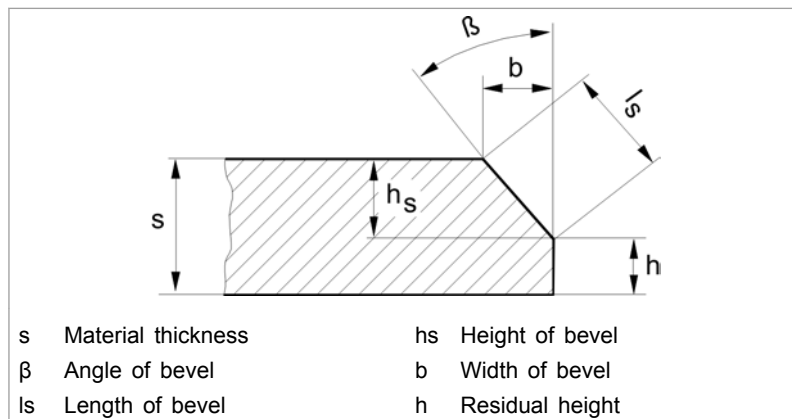


Fig. 39414

1. Undo the clamping screw (15).
2. Turn the spiral bevel gear (4) until the desired ram length (scale on stripper 5) corresponds to the marking.
3. Retighten the clamping screw (15).

### 3.2 Adjusting the angle of bevel



Length of bevel and angle of bevel

Fig. 9664

Angle of bevel	Length of bevel ls [mm]	Height of bevel hs [mm]	Width of bevel b [mm]
β 30°	11	9.5	5.5
	9	7.8	4.5
	7.5	6.5	3.8
	6	5.2	3
	4.5	3.9	2.3
	3	2.6	1.5
β 37.5°	11	8.7	6.7
	9	7.1	5.5
	7.5	6	4.6
	6	4.8	3.7
	4.5	3.6	2.7
	3	2.4	1.8
β 45°	11	7.8	7.8
	9	6.4	6.4
	7.5	5.3	5.3
	6	4.2	4.2
	4.5	3.2	3.2
	3	2.1	2.1

Tab. 4

Three carriers with angles of 30°/37.5°/45° are available for the beveler.

The angle is selected by replacing the entire carrier (see Fig. 39415, p. 13):

1. Undo the locking mechanism (10).
2. Turn the carrier (9) 45°.
3. Pull out the carrier (9) downwards.

4. Insert a different carrier.
5. Tighten the locking mechanism (10).

### 3.3 Setting the cutting tool height

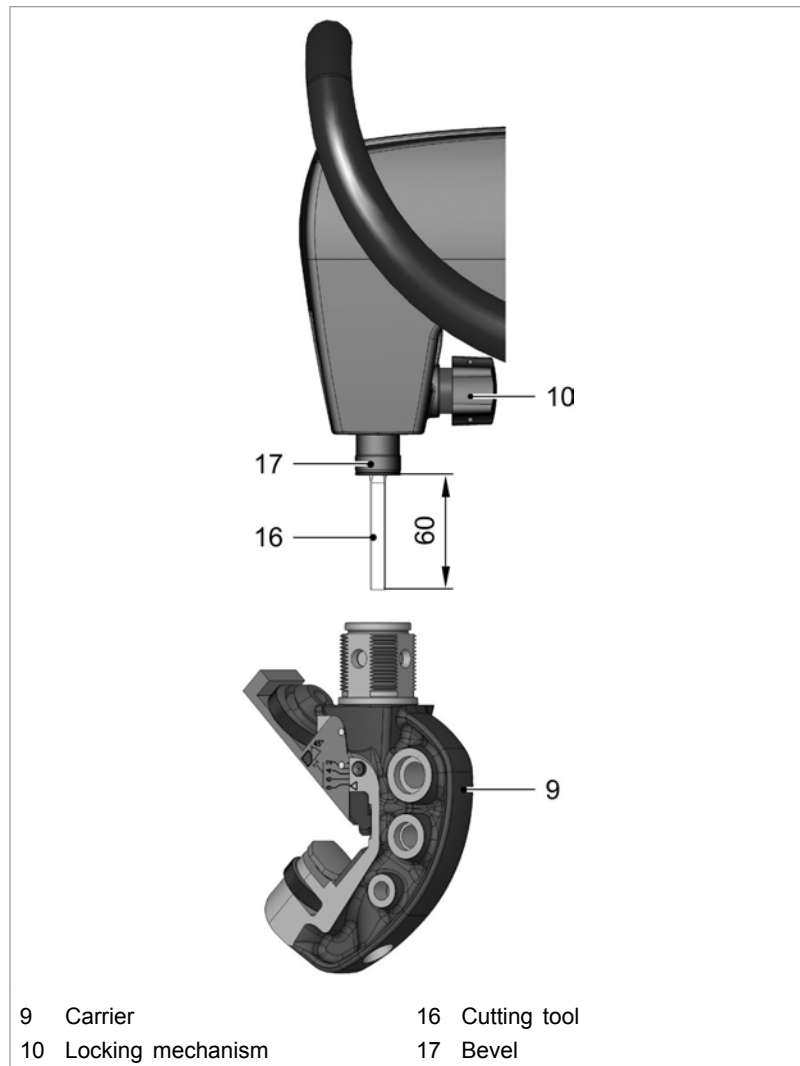


Fig. 39415

1. Undo the locking mechanism (10).
2. Remove the carrier (9).
3. Turn the cutting tool (16) until it protrudes 60 mm from the ram (17).
4. Insert the carrier (9).
5. Retighten the locking mechanism (10).

### 3.4 Setting material thickness

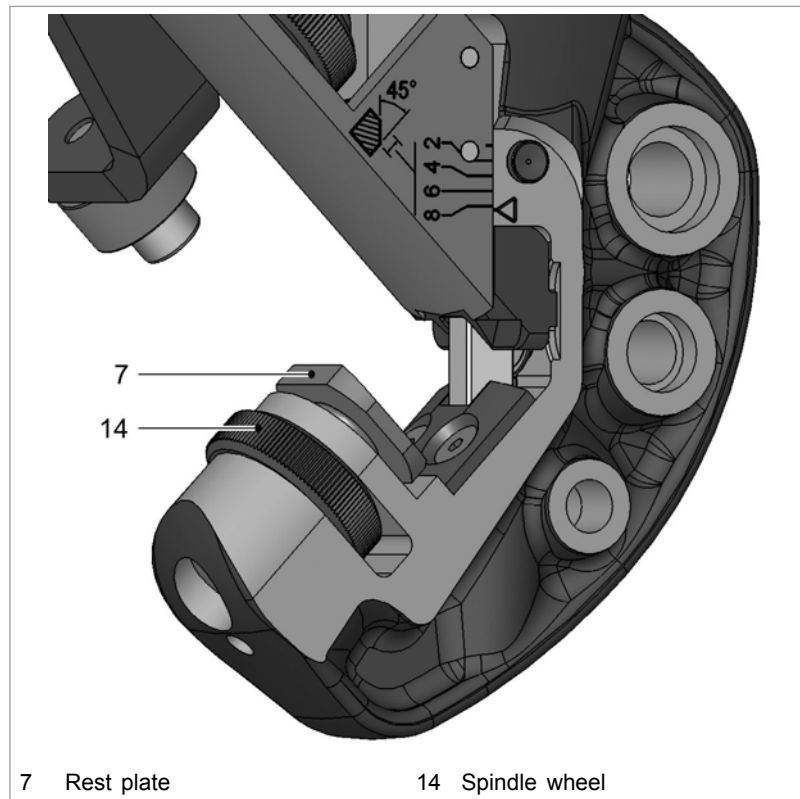


Fig. 39413

1. Position the machine on the sheet (working position).
2. Tighten the rest plate (8) against the lower sheet edge by turning the spindle (7). Leave play of 0.5 to 1 mm.

### 3.5 Selecting cutting tool

Cutting tool	Standard	High-tensile	Aluminum	High-tensile 5575	Heavy-duty cutting tool
Order number	0088503	0089335	0005014	0005575	0110399
Application	General mild steel of up to 500 N/mm <sup>2</sup>	Higher-tensile mild steel of up to 650 N/mm <sup>2</sup> , chromium steel	Aluminum alloys	High-tensile materials of up to 800 N/mm <sup>2</sup> , chromium steel	High-tensile materials

Cutting tool	Standard	High-tensile	Aluminum	High-tensile 5575	Heavy-duty cutting tool
	<p>A = direction of processing E = distinguishing feature</p>				
Regrinding diagram					
Regrinding reserve	10mm	10 mm	10 mm	10 mm	10mm

Tab. 5

## 4. Operation

### DANGER

#### Electrical voltage! Risk of fatal injury due to electric shock!

- Always lay the power cable away from the back of the device and do not pull it over sharp edges.
- Do not perform any work that may cause the machine to come into contact with hidden power lines or its own cable. Contact with a live conductor can cause metallic machine parts to become live and can lead to an electric shock.

### WARNING

#### Damage to the machine due to improper handling.

- Make sure the machine is always in a stable position when operating it.
- Never touch the tool while the machine is running.
- Always operate the machine away from your body.
- Do not operate the machine above your head.

### CAUTION

#### Damage to property due to excessively high line voltage

##### Motor damage

- Check the line voltage. The power supply voltage must correspond to the information on the nameplate of the machine.
- When using an extension cord that is longer than 5 m, the cord must have a line diameter of at least 2.5 mm<sup>2</sup>.

### CAUTION

#### Damage to property due to improper handling.

##### Collisions could result from setting the machine incorrectly.

- Rotate the eccentric shaft one full turn in a clockwise direction using the Allen key provided. If no more collisions occur, remove the Allen key and put the machine into operation in accordance with regulations.

#### Monitoring during operation

During operation, at an interval of approx. 20 m, the grease nipple on the supporting body should be lubricated with one or two squirts of grease. Doing so prolongs the service life of the cutting tool.

#### Lubricating oil

In order to improve the cutting result and increase the service life of the cutting tool, coat the cutting track with oil before machining the workpiece.

Material	Oil
Steel	Punching and nibbling oil for steel (0.5 l, order number 0103387)
Aluminum	Punching and nibbling oil for aluminum (1 l, order no. 0125874)

Tab. 6

## 4.1 Switching the TruTool TKF 1100/ TruTool TKF 1101 on and off

### Condition

- All setting work has been carried out.

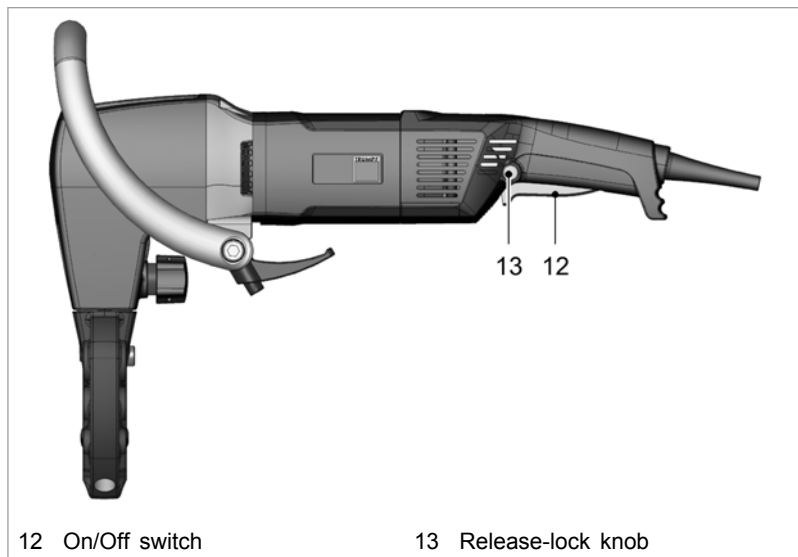


Fig. 39416

- Switching on the machine**
1. Insert the mains plug.

### Note

In order to fix the switch in On position, first release the switch and then the release button.

2. Press the release button (13) and the On/Off switch (12) on the motor.
- Switching off the machine**
3. Press the On/off switch (12) on the motor and release it again.

### Note

The machine is equipped with a restart inhibit. After a power cut, the machine must be switched off prior to work.

4. Pull out the mains plug.

## 4.2 Working with the TruTool TKF 1100/ TruTool TKF 1101

### Notes

- Do not move the machine towards the workpiece until full speed has been reached.
  - In order to improve the cutting result and increase the service life of the cutting tool, coat the cutting track with oil before machining the workpiece.
1. Processing material: position the machine on the sheet and, at first, keep a distance of a few centimeters between the cutting tool and sheet edge.
  2. Push the machine carefully as far as possible against the sheet edge i. e. "piercing".
  3. Push the machine along the sheet in such a manner that the machine axis is about parallel to the sheet edge, while pressing the machine against the sheet edge.

## 4.3 Changing the cutting direction

The tool or cutting direction can be turned 90° clockwise or counter-clockwise in the event of confined space conditions.

1. Open the locking mechanism.
2. Turn the carrier 90° in the desired direction.
3. Close the locking mechanism again.



## 5. Maintenance

**⚠ DANGER**

**Electrical voltage! Risk of fatal injury due to electric shock.**

- Remove the plug from the plug socket before undertaking any maintenance work on the machine.

**⚠ WARNING**

**Risk of injury due to incorrect repair work**

**Machine does not work properly.**

- Maintenance may be carried out by trained specialist technicians only.

**⚠ CAUTION**

**Damage to property caused by blunt tools.**

**Machine overload.**

- Check the cutting edge of the cutting tool for wear every hour. Sharp cutting tools provide good cutting performance and are easier on the machine. Replace the cutting tool promptly.

Maintenance point	Interval	Procedure	Recommended lubricants
Cutting tool	Regrind/replace as needed. Lubricate upon tool change.	-	-
Cutting tool guide	Lubricate every 50 m. Lubricate upon tool change.	Re-lubricate with a grease gun.	Lubricating grease "G1"
Wear plate	Turn if necessary. Change as needed.	-	-
Pressure die	Clean as needed.	-	-
Ventilation slots	Clean as needed.		
Motor	Approx. every 300 operating hours.	Change the carbon brushes.	-
Gearbox and gear head	After 300 operating hours, arrange for a trained specialist to relubricate or to replace the lubricating grease.	-	Lubricating grease "G1"

Maintenance positions and intervals

Tab. 7

### 5.1 Regrinding cutting tool

The aluminum cutting tools and heavy-duty cutting tools are ground at an angle on the grinding face. Observe the corresponding regrinding diagram (see "Tab. 4", pg. 10).

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The cutting tool for mild steel and high-tensile sheets has two cutting edges. It only has to be reground if both edges are blunt.

**Notes**

- Maintain the minimum length of the cutting tools (see "Tab. 4", pg. 10).
  - Do not use shorter cutting tools.
  - Dress the cutting edge with an oil stone after regrinding.
- If both cutting edges are blunt, regrind the cutting tool level (90°) on the grinding face.

## 5.2 Changing the cutting tool

**Note**

The cutting tool can be reground.  
It can be reground if necessary.

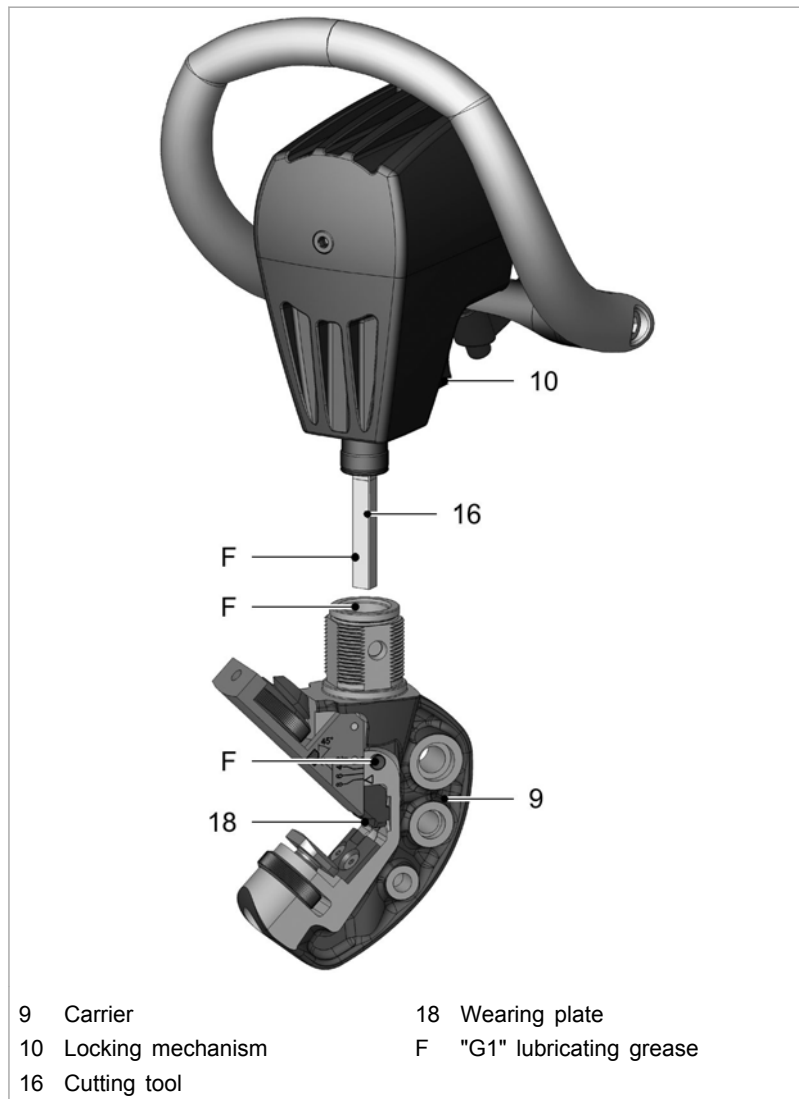


Fig. 39418

1. Undo the locking mechanism (10).
2. Turn the carrier (9) 45°.
3. Pull out the carrier (9) downwards.
4. Screw out the cutting tool (16).
5. Check the wearing plate (18).
6. Grease the square part of the new cutting tool and the bore hole of the carrier slightly with "G1" lubricating grease (order number 0139440).
- 7.
8. Align the cutting tool, observing the bevel grind while doing so.

### 5.3 Lubricating the cutting tool guide

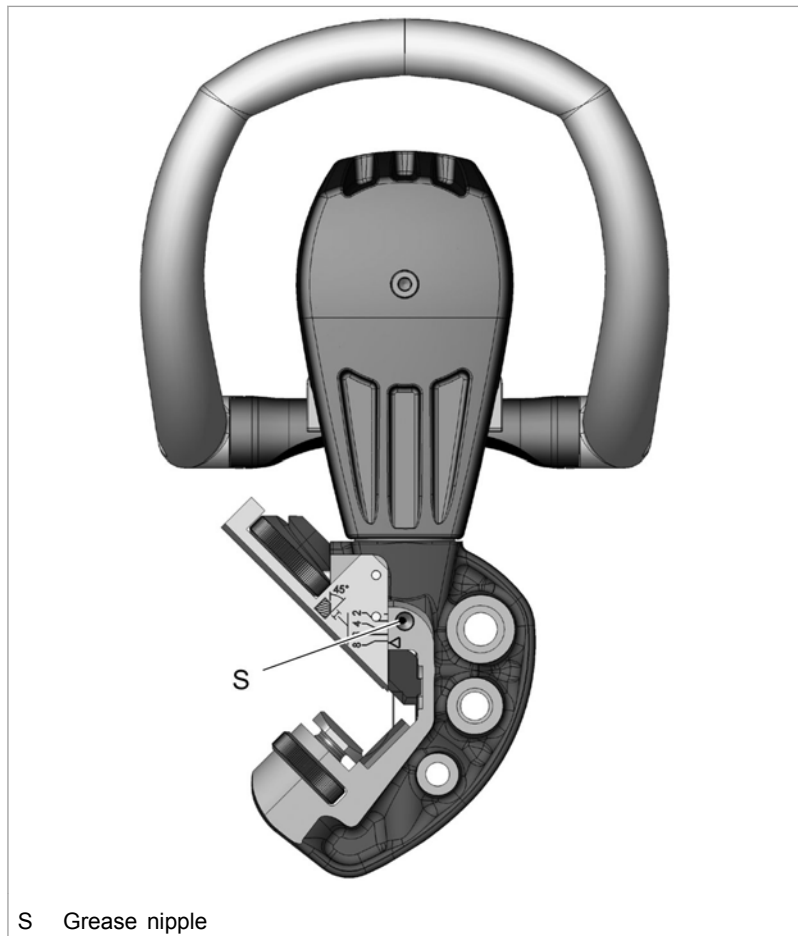


Fig. 39417

- Lubricate the grease nipple (S) on the cutting tool guide with a grease gun.

### 5.4 Checking the cutting tool guide

- Replace the cutting tool guide (6) if the play between the cutting tool guide and cutting tool exceeds 0.3 mm (see "Fig. 39412", pg. 5).

### 5.5 Checking and replacing the wearing plate

#### Checking the wearing plate

1. Remove the carrier (9) (see "Fig. 39415", pg. 11).
2. Check the wearing plate (18) for scratch marks.

**Replacing the wearing plate**

3. Lift out, turn or replace the wearing plate by squeezing it off with two screwdrivers once the running surface has receded approx. 0.2 mm (observe the outside ring = "wear mark").

## 5.6 Changing the power cable

If the power cable is to be replaced, it should be procured from the manufacturer or an authorized dealer to avoid safety hazards.

**Note**

For TRUMPF service addresses, see [www.trumpf-power-tools.com](http://www.trumpf-power-tools.com).

## 5.7 Replacing carbon brushes

The motor comes to a standstill whenever the carbon brushes are worn out.

**Note**

For TRUMPF service addresses, see [www.trumpf-power-tools.com](http://www.trumpf-power-tools.com).

- Change the carbon brushes.

## 6. Accessories and consumables

Name	Order number	Scope of delivery
Standard cutting tool TruTool TKF 1100	0089335	X
Standard cutting tool TruTool TKF 1101	0088503	X
Cutting tool for high-tensile materials 5575	0005575	-
Cutting tool for aluminum	0005014	-
Heavy-duty cutting tool specially designed for machining high-tensile materials	0110399	-
Cutting tool guide	1297406	-
Pressure die	1297327	-
Wear plate	1297370	-
Stripper 30°	1297414	-
Stripper 37.5°	1297413	-
Stripper 45°	1297412	-
Punching and nibbling oil for steel (0.5 l)	0103387	X
Punching and nibbling oil for aluminum (1 l)	0125874	-
Lubricating grease "G1" tube (25 g)	0344969	X
Lubricating grease "G1" can (900 g)	0139440	-

Consumables

Tab. 8

Name	Order number	Scope of delivery
Roller holder (56, 57, 58)	1299028	X
Allen key	0067857	X
Operator's manual, TruTool TKF 1100, TruTool TKF 1101	1302608	X
Safety information, other countries	0125699	X
Safety information (red document), USA	1239438	X
Grease gun	0068624	X
Bow-handle	1279590	X
Adjusting gauge	1411767	X
Case	1279611	X
Suspension bracket	0023210	-
Pedestal	1300382	-

Accessories

Tab. 9

### 6.1 Ordering consumables

#### Note

The following data must be specified in order to ensure that parts are delivered correctly and without delay.

- 
1. Specify the order number.
  2. Enter further order data:
    - Voltage data
    - Quantity
    - Machine type
  3. Specify the complete shipping information:
    - Correct address.
    - Desired delivery type (e.g. air mail, courier, express mail, ordinary freight, parcel post).

**Note**

For TRUMPF service addresses, see  
[www.trumpf-powertools.com](http://www.trumpf-powertools.com).

4. Send the order to the TRUMPF representative office.

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**7. Appendix: Declaration of conformity,  
guarantee, replacement parts lists**