

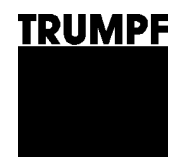
# Operator's manual



## TruTool F 301 (1A2)

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English







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**Guarantee**

**Spare parts list**

**Addresses**

# 1. Safety

## 1.1 General safety information

- Before starting-up the machine, read the operator's manual and the safety information (order no. 0373678, red document) in its entirety and carefully follow the instructions given.
- Comply with the safety regulations in accordance with DIN VDE, CEE, AFNOR as well as any other regulations that apply in the individual countries.



**Danger**

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### **Risk of fatal injury from electric shock!**

- When working with the machine do not touch any electrical lines. The machine is not insulated.
- 



**Warning**

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### **Risk of injury due to improper handling!**

- Always remove the compressed air hose from the machine prior to maintenance work.
  - Check the compressed air hose, connection coupling, and machine for damage each time before using the machine.
  - Wear safety glasses, hearing protection, protective gloves and work shoes when working at the machine.
- 

## 1.2 Specific safety information



**Warning**

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### **Risk of injury 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 move the machine during work away from your body.
  - Do not operate the machine above your head.
- 



**Caution**

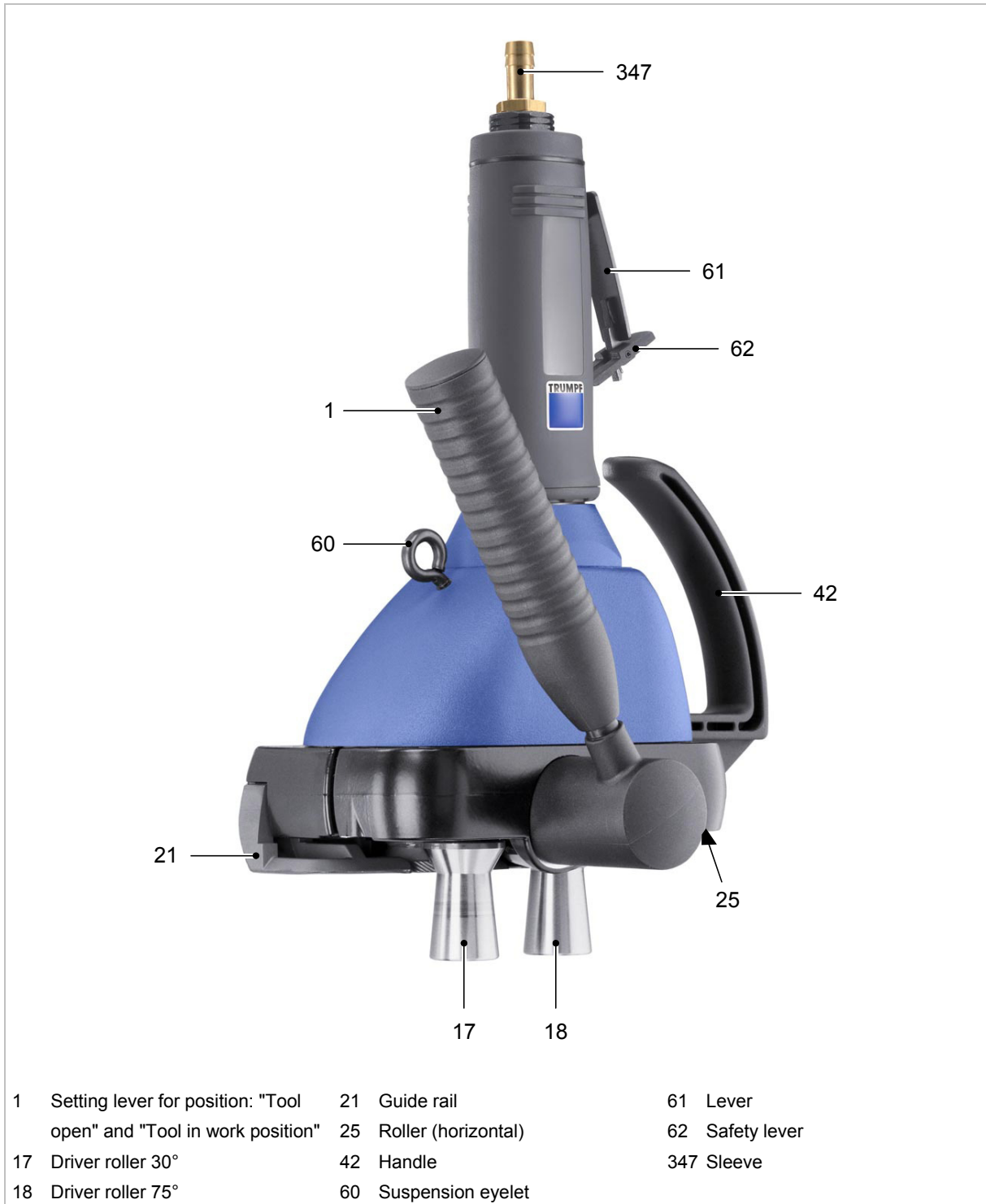
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### **Damage to property due to improper handling!**

#### **Machine will be damaged or destroyed.**

- Have servicing and inspections of hand-held compressed air tools carried out by a qualified technician. Only use original accessories provided by TRUMPF.
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## 2. Description



Seam locker TruTool F 301

Fig. 52523

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## 2.1 Intended use



### Warning

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#### Risk of injury

- Only use the machine for the tasks and materials described in "Intended use".

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The TRUMPF TruTool F 301 seam locker is a hand-held device powered by compressed air used for the following applications:

- Closing of Pittsburgh lock joints on correspondingly pre-machined workpieces, e.g. ventilation ducts, housings, containers, etc.
- Machining of all lock seam elevations.

#### Notes

- The lock seam can be closed on straight or curved contours.
- The machine adjusts itself automatically to the material thickness to be processed.



## 2.2 Technical data of the TruTool F 301

	Other countries	USA
	Value	Value
Max. material thickness of steel 400N/mm <sup>2</sup>	0.45-1 mm	0.018-0.039 in
Height of flange	7.5-8 mm	0.295-0.315 in
Inside radiuses	min. 150 mm	5.9 in
Outside radiuses	Min. 300 mm	11.8 in
Working speed	5-8 m/min	16-26 ft/min
Nominal power consumption	600 W	600 W
Weight	5.2 kg	11.5 lbs
Max. operating pressure (flow pressure)	6.2 bar	90 psi
Air consumption at 6 bar	0.4 m <sup>3</sup> /min	28.3 cubic ft/min
Connecting thread	1/4"	1/4"
Inside diameter of the compressed air hose	10 mm	0.4 in (3/8")

Technical data

Table 1

Vibration	Specifications in accordance with EN 12096 Measured values in accordance with EN ISO 8662-10
Vibration value at the handle a	0.85 m/s <sup>2</sup>
Uncertainty K	1.5 m/s <sup>2</sup>

Table 2

Measured values were measured while machining sheet steel 400 N/mm<sup>2</sup> with max. material thickness.

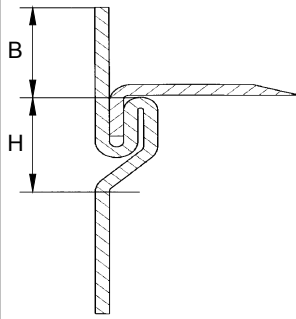
Noise emissions	Designations in accordance with EN ISO 4871 Measured values in accordance with EN ISO 15744
A-rated sound level L <sub>WA</sub>	93 dB
A-rated acoustic power level at the work place L <sub>PA</sub>	82 dB

Table 3

The noise emission values given are the sum of the measured values and the corresponding uncertainties. They represent an upper value limit which can emerge during measurements.

## 2.3 Lock seams

"Pittsburgh lock seam" geometry

Material thickness range		Height of flange (B) [mm]	Illustration
[mm]	[in]		
0.45-1	0.295-0.315	8	 <p>B Height of flange H Lock seam height</p>

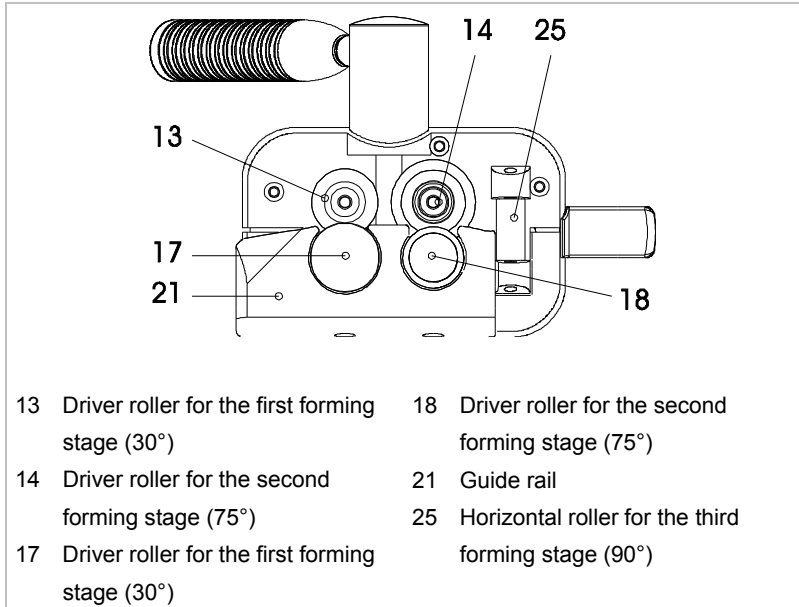
"Pittsburgh lock seam" geometry

Table 4

**Note**

The lock seam quality depends essentially on the height of the flange B. If B is too small, then the lock seam cannot be properly closed.

**Roller arrangement**

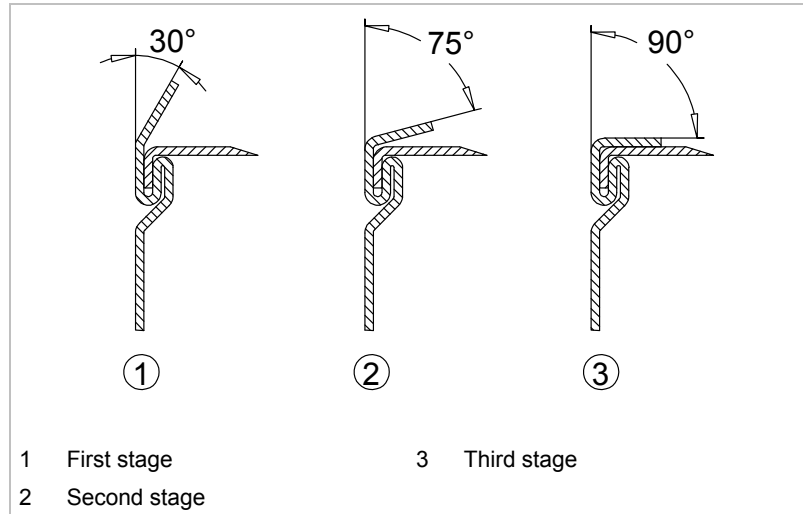


View of the machine from below: roller arrangement

Fig. 18181



Folding process sequence



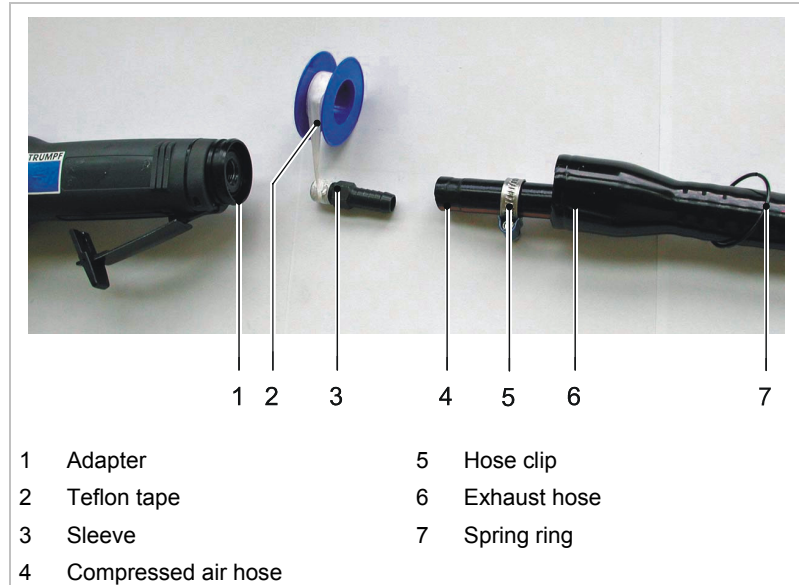
Folding process

Fig. 13416

### 3. Setting work

#### 3.1 Installing the exhaust hose

The exhaust hose reduces noise emissions and guides the exhaust air away from the operator.



Exhaust hose

Fig. 52422

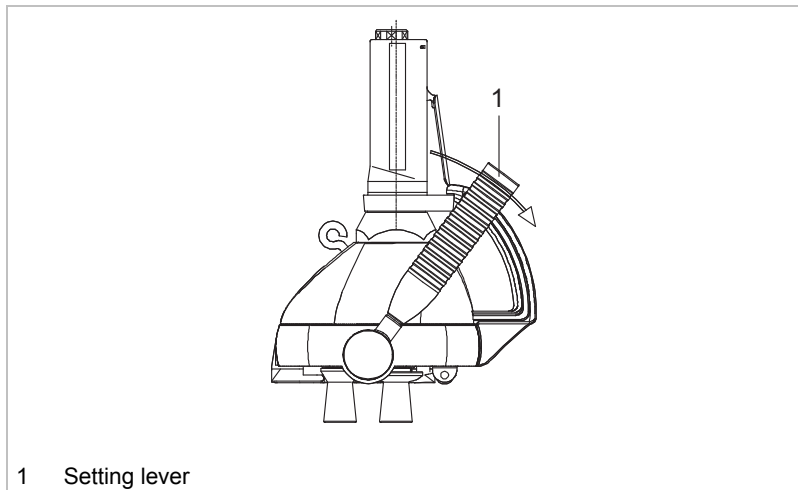
1. Put the exhaust hose (6) and the hose clip (5) over the compressed air hose (4).
2. Undo the spring ring (7) and screw the adapter (1) onto the motor.
3. Wind Teflon tape (2) around the sleeve (3).
4. Screw sleeve (3) tightly into the motor.
5. Push the compressed air hose (4) onto the sleeve (3).
6. Position the hose clip (5) and tighten.
7. Push the exhaust hose (6) on to the adapter (1).
8. Secure the exhaust hose (6) using the spring ring (7).

## 3.2 Setting the tool

The clearance between the rollers and the guide rails can be locked into place in two positions in order to be able to place the machine at the desired position of the channel or to be able to remove it from the machining position at the end of the channel:

- Setting lever (1) in position against the direction of feed: "Tool open".
- Move setting lever (1) in direction of feed in end position: "Tool in work position".

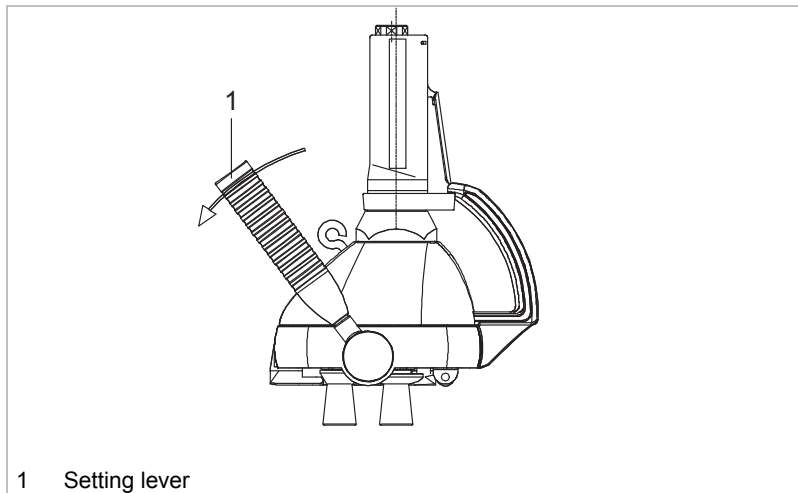
"Tool open"



"Tool open"

Fig. 18191

Tool in work position



"Tool in work position"

Fig. 18192

### Note

No adjustment for material thickness is required because the machine automatically adjusts itself to the material thickness.

## 4. Operation



**Warning**

### Risk of injury 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 move the machine during work away from your body.
- Do not operate the machine above your head.

### 4.1 Operating the TruTool F 301

#### Switch on

1. Turn the safety lever (62).
2. Press the lever (61) against the motor housing.

#### Operating the TruTool F 301

In order to improve work results, lightly oil the rollers or the sheet with universal oil (Order No. 0138648).

Depending on the construction type of the channel to be machined, a distinction is made between two possible ways of commencing work:

- Channel open.
- Flange at the beginning of the channel.

#### Channel open

Bevel the web at the beginning of the channel approximately 30° for a length of approximately 5 mm.

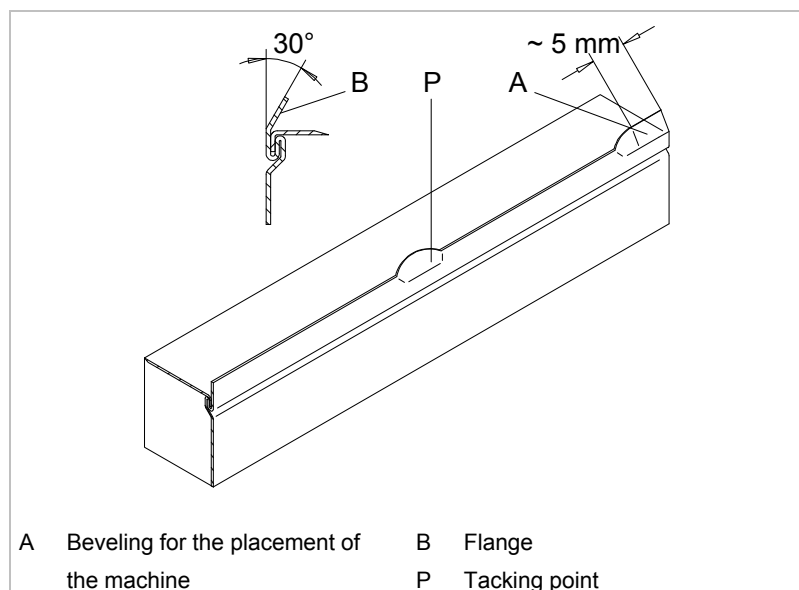


Fig. 13411

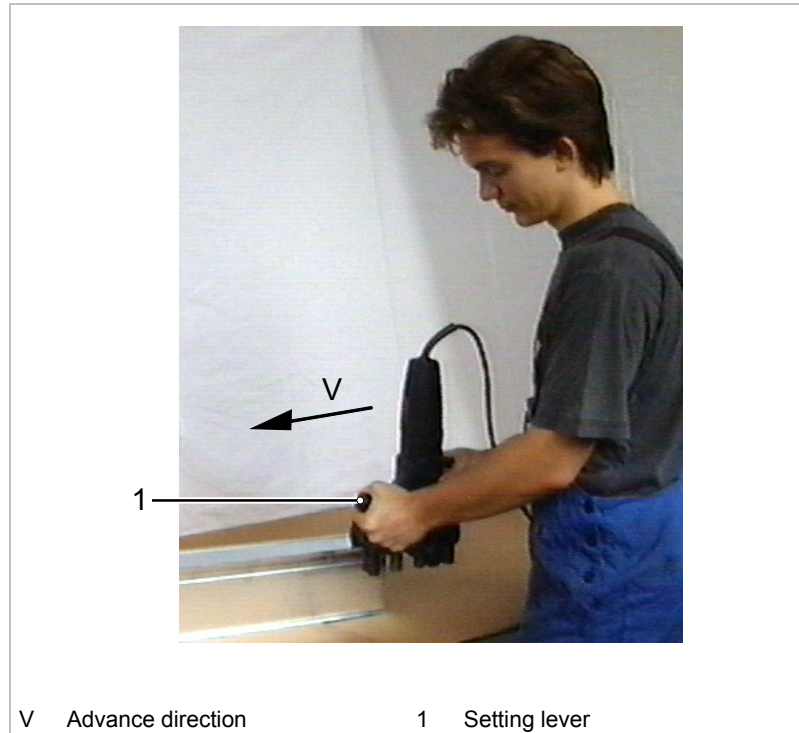


Fig. 13415

1. Move setting lever (1) in direction of feed to end position ("Tool in work position").
2. Switch on machine and place against the beginning of the channel.
  - The curved guide rail ensures a simple placement of the machine at the beginning of the machining process.
3. The machine is drawn through the driving rollers in the feed direction, meaning that lock seam closure takes place.



### Flange at the beginning of the channel

The machine cannot be placed up against the beginning of the channel.  
Preparation of the channel so that the machine can be brought into position.

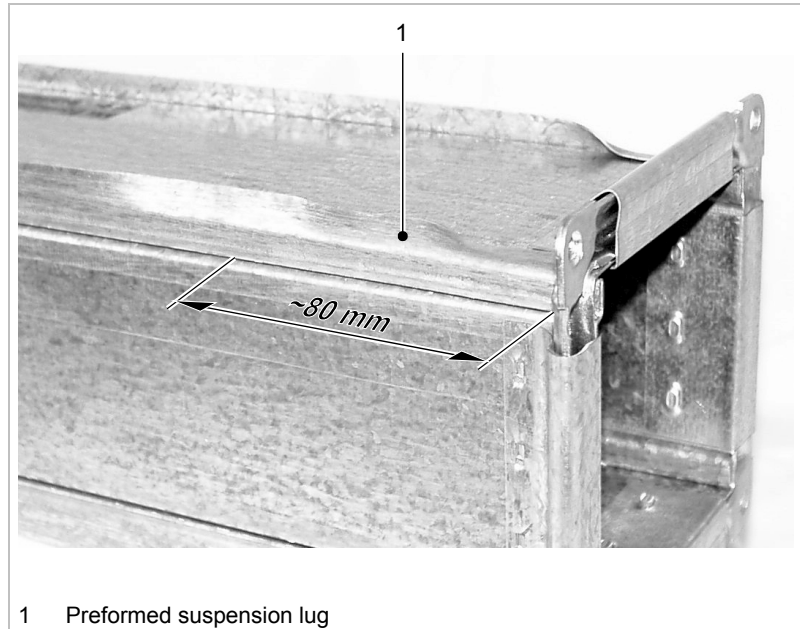


Fig. 13412

1. Move setting lever (1) into position against the direction of feed ("Tool open").
2. Set machine up against desired (prepared) position on the channel.
3. Position setting lever (1) in direction of feed ("Tool in work position").
  - The working direction (direction of feed) of the machine is determined by its design.
4. Switch on the machine.
5. Close the lock seam.
6. Move setting lever (1) into "Tool open" position.
7. Switch off machine and remove from the machining position.

#### Note

- A minor refinishing operation (length approximately 130 mm) must be carried out manually at the end of the channel following the use of the seam locker.

### Switching off ➤ Release lever.

The lever springs back to the initial position and the compressed air is interrupted.

## 5. Maintenance



**Warning**

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**Risk of injury due to uncontrolled machine movements.**

- Remove the compressed air hose when changing tools and before performing any maintenance work on the machine.
- 



**Warning**

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**Risk of injury due to repair work not being carried out properly!**

**Machine does not work properly.**

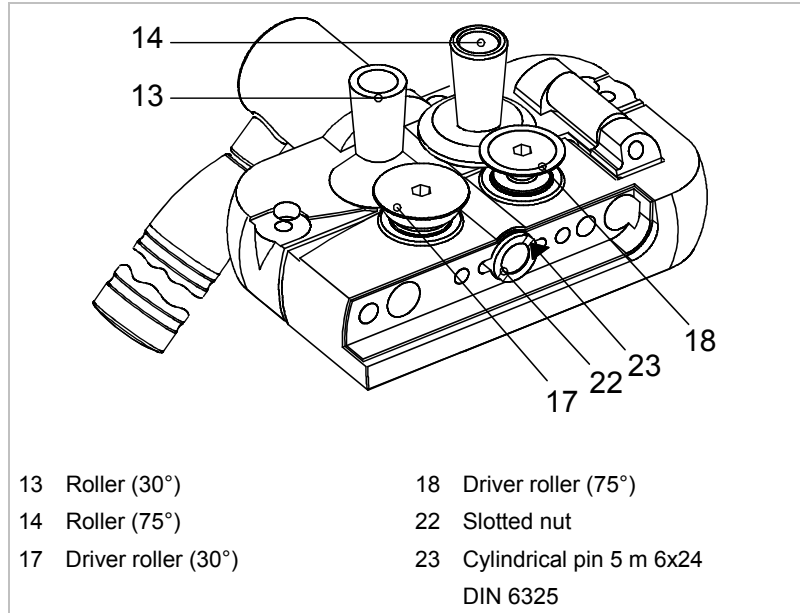
- Repair work may only be carried out by a qualified technician.
- 

Maintenance point	Procedure and interval	Recommended lubricant	Lubricant order no.
Guide rails of the machine	A trained specialist should clean with a steel brush and lubricate with oil every 10 operating hours	Universal oil	0138648
Gearbox and gear head	After 300 operating hours, arrange for a qualified technician to relubricate or to replace the lubricating grease.	Lubricating grease "G1"	139440
Filter, oil mist lubrication device	Maintain daily in accordance with the manufacturer's specifications (see "Supplying with power and guaranteeing lubrication", p. 17)	-	-
Strainer	Clean every 10 operating hours and when there has been a decline in performance (see "Cleaning the strainer", p. 19).	-	-

Maintenance table

Table 5

## 5.1 Tightening screws with torque



View of the TruTool F 301 seam locker from below, the rail is dismantled.

Fig. 14423

- If parts of the machine have been disassembled, make sure when reassembling that the screws and nuts:
  - are tightened with the correct torque.
  - are secured with Loctite 262.

Components	Torque	Threaded nut retention
Roller (30°)	24 Nm	Loctite 262
Roller (75°)	24 Nm	Loctite 262
Driver roller (30°)	24 Nm	-
Driver roller (75°)	24 Nm	-
Slotted nut	16 Nm <sup>1</sup>	Loctite 262
Cylindrical pin 5 m 6x24 DIN 6325	-	-

Table 6

<sup>1</sup> Locking mechanism must be closed (special wrench order no. 922759).



## 5.2 Supplying with power and guaranteeing lubrication



Caution

**Damage to property due to improper handling!**

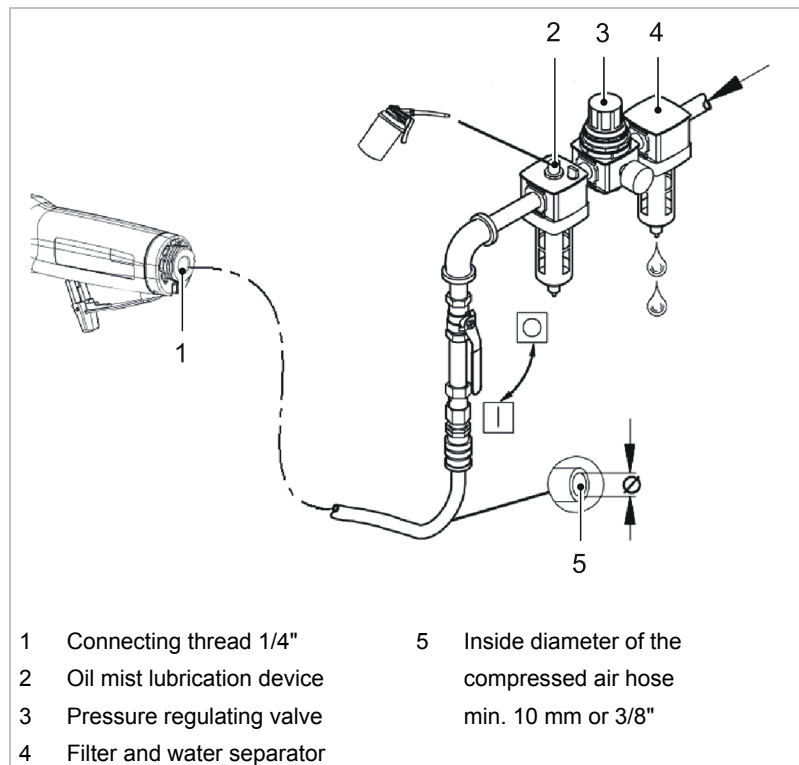
**Failure of the compressed air motor.**

- Do not exceed the maximum operating pressure.
- Regularly lubricate the compressed air motor. Install an oil mist lubrication device into the compressed air line.

### Supplying compressed air

#### Condition

- The pressure regulating valve and the connecting threads are laid out correctly (see "Technical data", section 2.2, p. 7).



Compressed air supply

Fig. 52385

1. Install the filter and water separator (4).
2. Drain/check the water separator daily.

#### Note

To ensure a supply of compressed air the tube cross-sections in the entire line system must be twice to three times the size of the inside diameter of the compressed air hose.



### Checking the oil supply

- Hold a piece of paper in front of the exhaust air vent in the motor housing when the machine is running.

The oil supply is sufficient when oil spots appear.

When there is no oil mist lubrication device available:

- Fill the air inlet bore hole with 0.5-1 ccm of oil every two hours.

Recommended lubricant

- BP Energol RD 80 (-15° to +10°C / +5° to +50°F).
- BP Energol RD-E80 (+10° to +30°C/+50° to +86°F).
- Shell Tellus Oil 15 (-15° to +10°C / +5° to +50°F).
- Torculla 33 (+10° to +30°C / +50° to +86°F).

#### Note

Secure the compressed air hose against undesired movements using a compressed air safety device.

## 5.3 Replacing fins

Worn fins decrease machine performance.

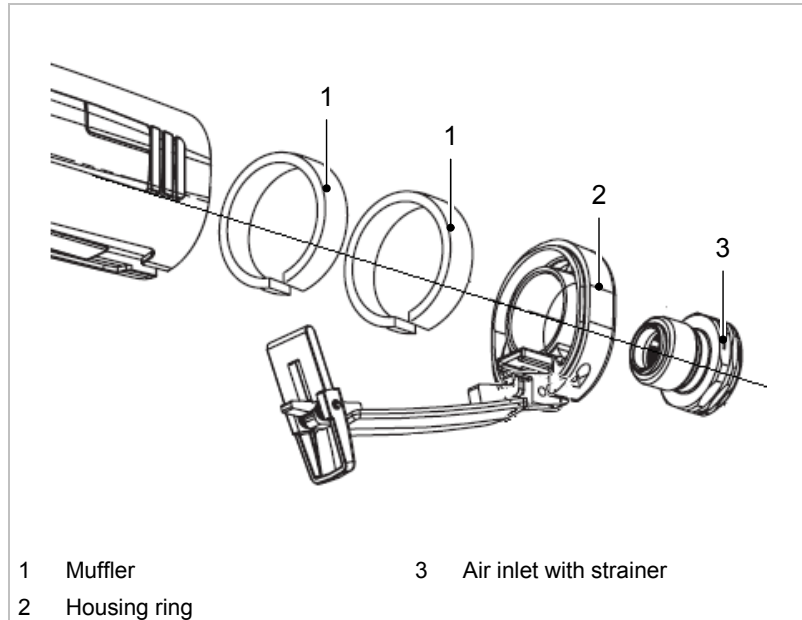
- Have the fin set checked and replaced as needed by a qualified technician.

#### Note

Only use original replacement parts and observe the information on the rating plate.

## 5.4 Cleaning the strainer

Dirty strainers decrease machine performance.



Air inlet

Fig. 52402

1. Remove the air inlet with strainer.
2. Clean the strainer or replace the complete air inlet.
3. Reinstall the air inlet.

## 5.5 Changing mufflers

Change the mufflers as needed (see Fig. 52402, p. 19).

1. Remove the air inlet (3).
2. Pull off the housing ring (2).
3. Replace mufflers (1).
4. Reinstall the housing ring and the air inlet.

## 6. Original accessories and wearing parts

Designation	Supplied original accessories	Wearing parts	Options	Order no.
Guide rail	+	+		920881
Driver roller 30°	+	+		145769
Driver roller 75°	+	+		135478
Roller (horizontal)	+	+		135791
Suspension eyelet	+			107666
Allen key DIN 911-4	+			067849
Case	+			982582
Sleeve	+			0376078
Fin set (4 x)		+		1440002
Operator's manual	+			1440928
Safety information (red document)	+			0373678
Lubricating grease "G1" (900 g/1.98 lbs)			+	139440

Table 7

**Ordering wearing parts** To ensure the correct and fast delivery of original parts and wearing parts:

1. Specify the order number.
2. Enter further order information:
  - Voltage data.
  - Quantity
  - Machine type.
3. Provide complete shipping information:
  - Correct address.
  - Desired delivery type (e.g. air mail, courier, express mail, ordinary freight, parcel post).
4. Send the order to your TRUMPF representative. Refer to the address list at the end of the document for TRUMPF service addresses.

## 7. Disposal

For disposal, completely disassemble the machine, degrease and recycle according to the type of material.