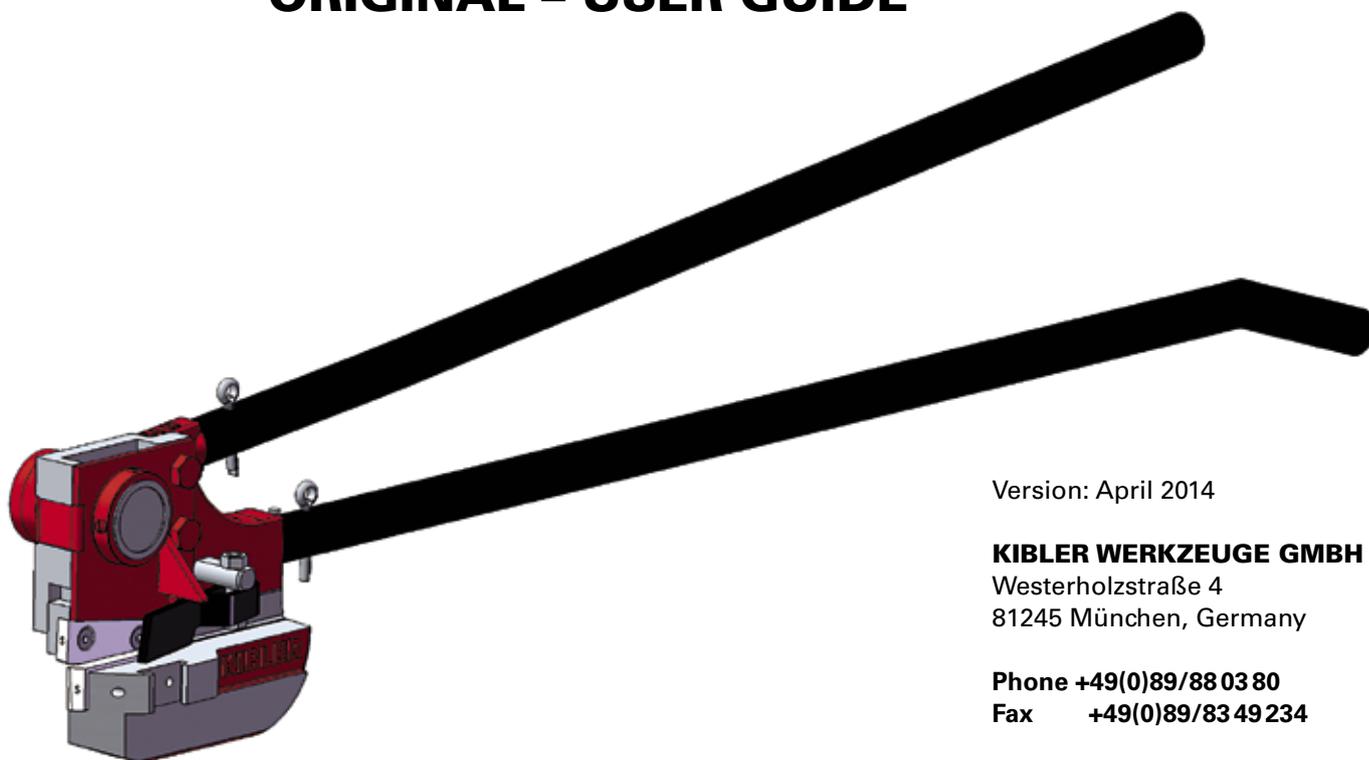


# KIBLER UNIVERSAL METAL CUTTING HAND SHEARS ORIGINAL – USER GUIDE



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## 1.1 GENERAL INFORMATION

This operating manual contains information on the operation, maintenance and care.

Carefully read through this operating manual before you take your KIBLER UNIVERSAL metal cutting hand shears into operation.

Safety, reliability and service life depend primarily on correct operation and maintenance.

KIBLER UNIVERSAL metal cutting hand shears may only be used when they are in a technically perfect condition and with full awareness of safety and risks.

### DANGER

KIBLER WERKZEUGE GMBH will not assume any liability or warranty for any type of damage that results from unauthorised repair.

Repairs to the KIBLER UNIVERSAL metal cutting hand shears as well as their dismantling may only be carried out by the manufacturer, KIBLER WERKZEUGE GMBH. Exceptions to this are the available spare parts listed in Chapter 8.

No claims, in particular constructional claims, for designing the product may be derived from this user guide.

We reserve the right to change the technical details given in the illustrations and information in this user guide.

Due to our continuous efforts to improve our products, it is possible that new information available when this user guide went to print has not been incorporated.

#### **Attention:**

The user guide is to be kept in the vicinity of the KIBLER UNIVERSAL metal cutting hand shears and must be available to potential users at all times.

When the KIBLER UNIVERSAL metal cutting hand shears are sold or transferred to a third party the user guide must be handed over to the third party. Should KIBLER WERKZEUGE GMBH publish amendments to this user guide, then the operating company is obligated to include these amendments in the operating manual.

In the event that this user guide is lost, the operating company of the KIBLER UNIVERSAL metal cutting hand shears is obligated to provide a replacement.

The current version of the user guide can be obtained from KIBLER WERKZEUGE GMBH.

Reprints, translation and reproduction, including excerpts, are only permitted with the written approval of KIBLER WERKZEUGE GMBH.

All previous user guides are hereby invalid.

## 1.2 Symbols and instructions

### DANGER

Notice that irreversible damage to health, and possibly death, may be caused when this hazard warning sign is not complied with.

### WARNING

Notice that injuries to persons and material damage including risk of injury, accident and to health may be caused when this warning sign is not complied with.

### CAUTION

Notice that material damage and possibly low risk of injury may be caused when this warning sign is not complied with.

### ATTENTION

This symbol draws attention to possible material damage.

### NOTICE

This symbol identifies useful additional information and application tips.

### ENVIRONMENTAL PROTECTION

This symbol identifies information on environmental protection.

Notice on personal protective equipment:



Hand protection



Foot protection



Protective goggles

KIBLER UNIVERSAL metal cutting hand shears are a sturdy item of equipment designed for shear cutting of non-hard-brittle materials.

The shears are designed as straight-cutting shears, so that they can endlessly cut plate-type sheet material. They can also cut rods and flat materials to length. The permissible cutting capacities are listed in Section 7.5 Specifications.

When you handle the KIBLER UNIVERSAL metal cutting hand shears, always wear your personal protective equipment (PPE) that consists of at least.



### 2.1 PROPER USE

The KIBLER UNIVERSAL metal cutting hand shears are used for shear cutting of ductile materials such as sheet metals, steel strips or round steel, and are operated with muscle power.

Also for the cutting of sealing materials, leather as well as rubber, also with metal inserts, as long as the permissible cutting capacities in Section 7.5 Specifications are complied with.

#### DANGER

A significant risk of injury may be caused from improper use.

### 2.2 IMPROPER USE

- Cutting without or with incorrectly fitted blades
- Cutting without use of the hold-down supported by the nose
- Cutting with, if used, an incorrectly fitted stop system
- Cutting of hard brittle materials such as glass, tiles, ceramics or plastics with similar properties
- Cutting of electrical cables
- Cutting of components with internal pressure, such as hydraulic and pneumatic cables
- Cutting of valve shafts
- Cutting of components under mechanical tension such as wire ropes, frames, gusset plates
- Cutting with blades that do not have the same quality
- Cutting with broken out blades
- Use of the shears by persons who do not have full sensory or physical capabilities
- Use of the shears with unapproved blades

- Use of the shears when important parts, such as the shears body, lever or blade, are not in a technically perfect condition, or are cracked, bent or broken
- Use of the shears without, with incorrectly fitted, bent, non-original operating tubes or operating tubes not secured by cotter pins; excluded from this is the test cut after fitting a blade, cf. Section 7.3
- Use of the shears under water
- Use of a power for operation other than manual muscle power
- Use as a hammer, crowbar or similar
- Use as a weight, counterweight
- Use of the shears in a technically modified condition compared to the original condition
- Use of the shears without regular maintenance and care; cf. Chapter 7

#### ATTENTION

The operating company of the shears is liable for damages that may occur or have occurred due to improper use of the KIBLER UNIVERSAL metal cutting hand shears.

#### ATTENTION

KIBLER WERKZEUGE GMBH will not assume any liability or warranty for damage that results from improper use.

#### INFORMATION

The warranty becomes void when the shears are opened as well as when components are fitted or removed except for the following

- the operating tubes including cotter pins
- the blades including screws
- the stop system

**⚠ WARNING**

The user guide for the metal cutting hand shears must be complied with.

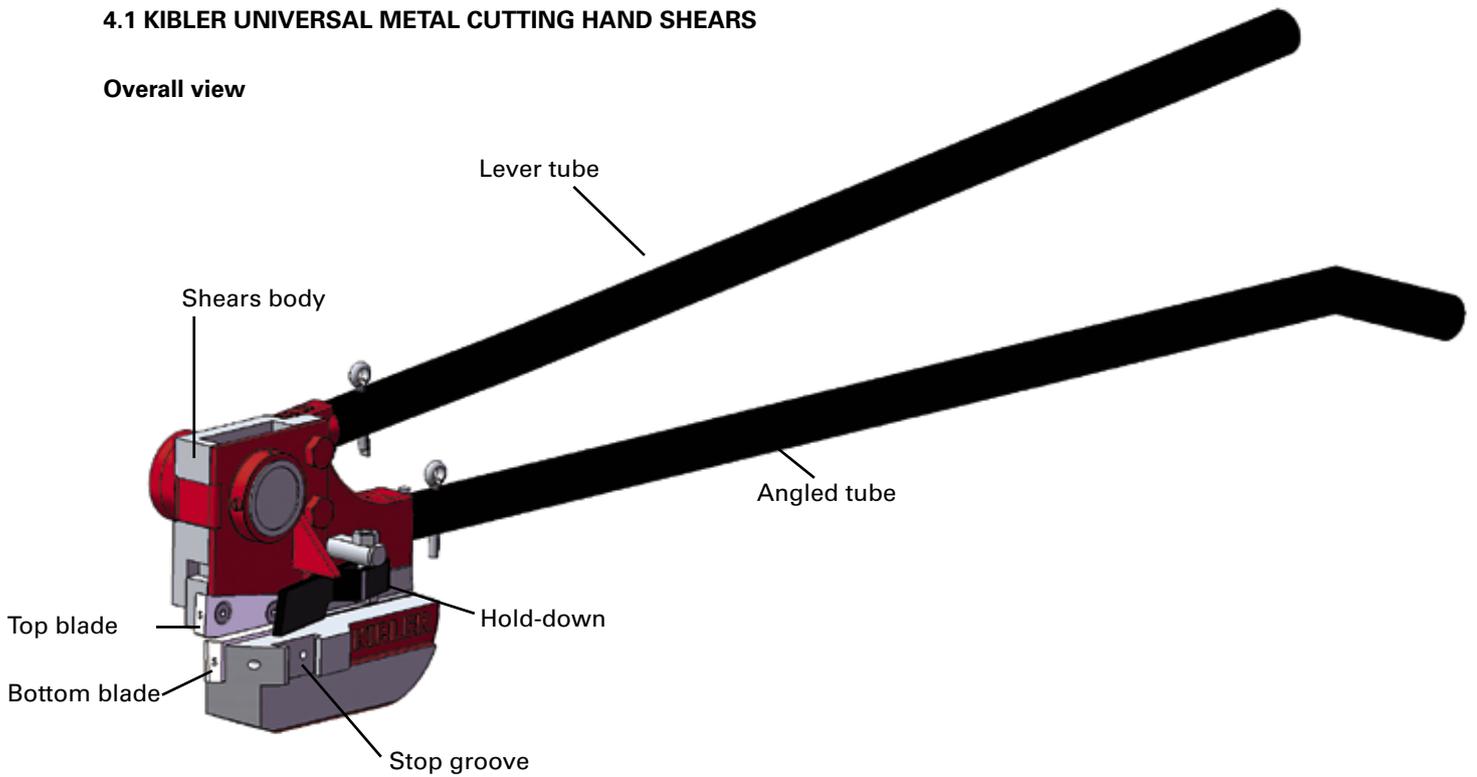
**⚠ WARNING**

The national regulations for safety at work and prevention of accidents must be complied with. Accidents are to be prevented by employing a careful and well thought-out method of working. Caution is the best accident prevention.

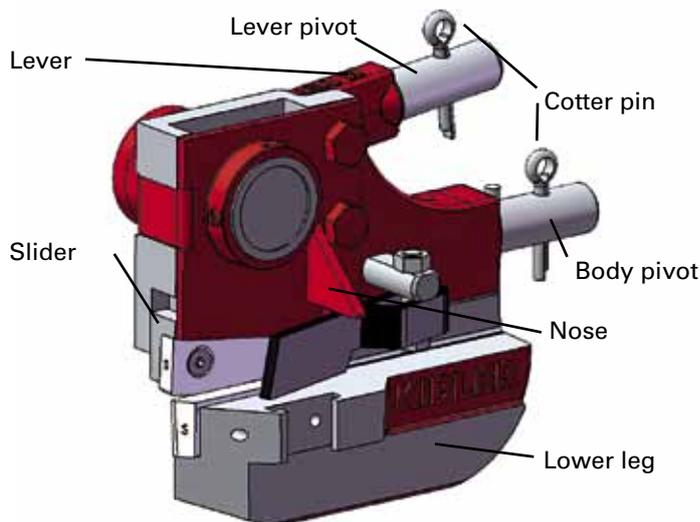
**4 OVERVIEW**

**4.1 KIBLER UNIVERSAL METAL CUTTING HAND SHEARS**

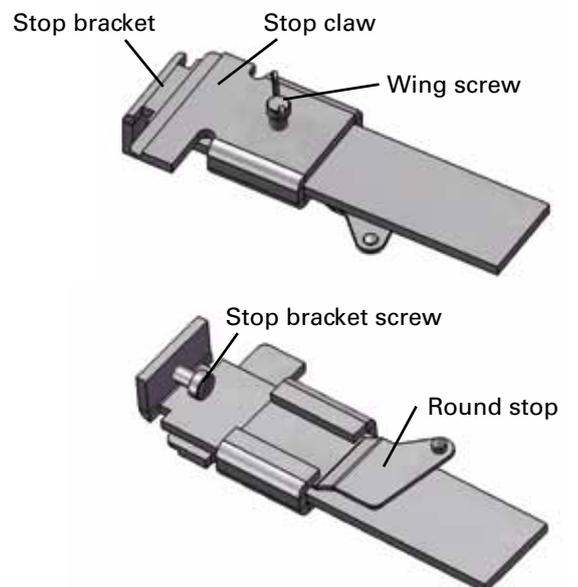
**Overall view**



**Detailed view of the shears body**



**Stop system**



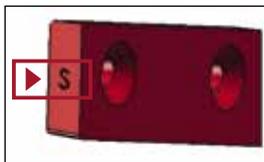
### 5.1 Unpacking

Check whether the type and quantities of items are the same as shown on the delivery note.

Unless shown otherwise on the delivery note, the items included for metal cutting hand shears have to include the parts below.

- 1 shears body with fitted blades, cotter pins in the pivots
- 1 lever tube
- 1 angled tube
- 1 stop system
- 1 user guide

Check also whether the blade quality is the same as that shown on the delivery note.



All original blades for KIBLER UNIVERSAL metal cutting hand shears are marked on the front with **(N)**ormal, **(S)**pecial or **(E)**xtra.

Complaints regarding completeness of the delivery must be made in writing within 3 working days from their discovery.

Subsequent complaints regarding completeness of the delivery will not be recognised.

### 5.2 Assembly of the operating tubes

To assemble the operating tubes, clamp the lower leg of the shears in a vice.

#### WARNING

Make sure there is nothing between the blades that could be inadvertently cut during assembly of the operating tubes.

Remove the cotter pins from the body and lever pivots.

#### NOTICE

For safety reasons, the operating tubes must be removed for fitting/removing the blades.

Grease the body and lever pivots.

Slide the angled tube onto the body pivot.

Make sure that

- a) the angled tube end points to the side of the hold-down,
- b) the notches on the tube align with the fixed pin in the body pivot,
- c) the angled tube is fully slid on.

 The hole in the angled tube is now aligned with the hole in the body pivot.

Knock the cotter pin through the hole in the angled tube and body pivot and secure it by bending the two cotter pin legs.

Slide the lever tube onto the lever pivot.

Make sure that

- a) the offset of the lever tube is distant from the angled tube,
- b) the lever tube is fully slid on.

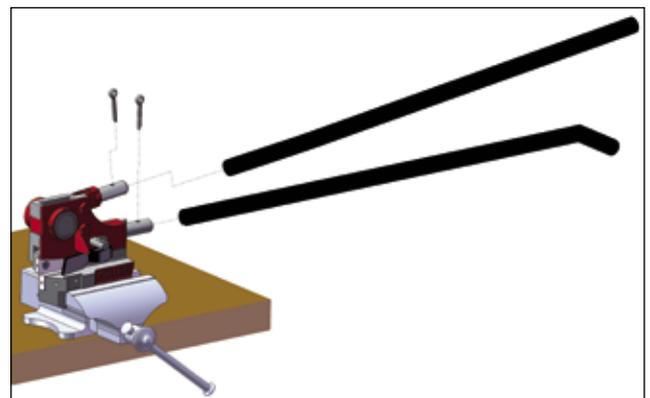
 The hole in the lever tube is now aligned with the hole in the lever pivot.

Knock the cotter pin through the hole in the lever tube and lever pivot and secure it by bending the two cotter pin legs.

Disassembly of the operating tubes is carried out in the reverse sequence.

#### DANGER

If the operating tubes are incorrectly fitted, there is a considerable risk of injury from cutting and crushing zones between the operating tubes.



Grease the body and lever pivots.  
Slide the angled tube onto the body pivot.

### 5.3 Accessories

A stop system is provided as an accessory for the KIBLER UNIVERSAL metal cutting hand shears.

It consists of

- stop bracket, as the base and for connecting the stop system to the shears body
- claw including wing screw, as adjustable width stop
- round stop, as stop point for circular cuts

Use is described in Section 6.4, Working with the stop.

## 5.4 Taking out of operation

### 5.4.1 Taking out of operation / storage

When the KIBLER UNIVERSAL metal cutting hand shears are not used for a period longer than 6 months (1 month at sea), the following points are to be complied with in accordance with Chapter 7 Maintenance and care):

1. clean thoroughly
2. carry out a lubrication service
3. preserve all unpainted points
4. store suitably protected against the effects of weather
5. suitably store the user guide, accessories and any spare parts with the shears

#### ENVIRONMENTAL PROTECTION

The national environmental regulations must be complied with for cleaning.

### 5.4.2 Taking back into operation

1. Read the user guide carefully
2. Thoroughly clean the shears (Chapter 7, Maintenance and care)
3. For further information see Chapter 5, Taking into operation

#### ENVIRONMENTAL PROTECTION

Old and excessive grease, oil and preservation agents must be disposed of in accordance with national regulations.

### 5.4.3 Final taking out of operation

KIBLER UNIVERSAL metal cutting hand shears are made out of 98% steel-iron materials.

#### ENVIRONMENTAL PROTECTION

For final taking out of operation, the metal cutting hand shears are to be disposed of in accordance with the applicably national regulations.

**DANGER**

Never hold the shears between the blades! There is a considerable risk of injury from cutting and crushing zones between the blades.

**WARNING**

Materials being cut may have sharp burrs. Always wear protective gloves.

**WARNING**

Parts of the material being cut or the blade may chip during cutting. Always wear protective goggles.

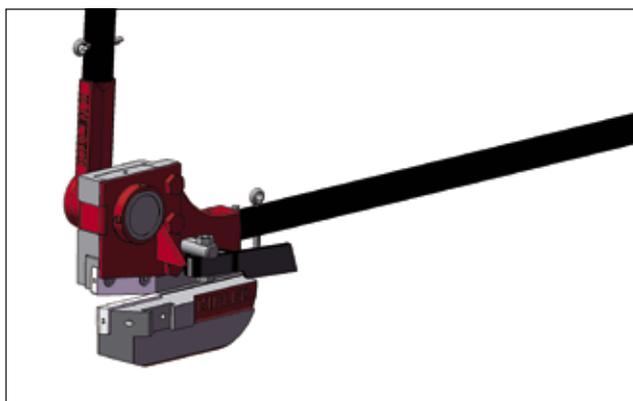
**WARNING**

Parts of the material being cut may fall down. Always wear safety shoes.

**WARNING**

When freehand cutting, always guide the shears with one hand on the angled tube and one on the lever tube.

The top blade is moved against the bottom blade by moving the lever tube. When the lever tube is vertical to the angled tube (see picture) the shears are fully open.



The blades are inclined towards each other, so that you can insert all material cross sections (that the shears can cut) up to the point where they touch the blades.

You achieve the largest possible reduction and thus the largest cutting force when you start cutting with the blades fully open.

Do this by always inserting the material being cut in such a way that it touches the blades when the shears are fully open.

As the travel increases, the reduction and therefore the cutting force decreases.

For thick or wide materials or material with high strength, therefore, reposition early and

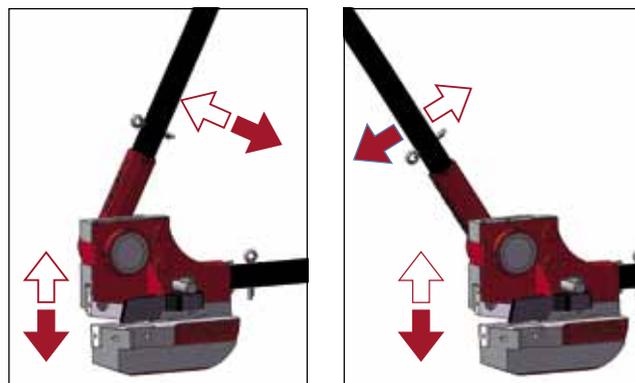
- start cutting from the top lever position
- move the blades fully apart
- reinsert the material
- start cutting again from the top lever position

**NOTICE**

Timely repositioning during cutting preserves your strength.

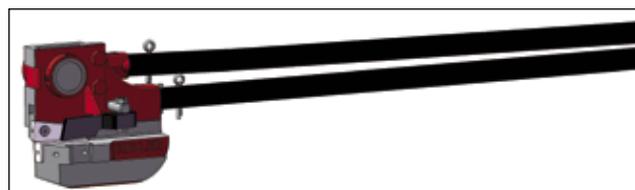
**CAUTION**

The internal transmission of force in the shears allows the blades to be moved in both lever directions from the vertical lever position.

**NOTICE**

Make cutting marks before you start work. This results in higher working accuracy.

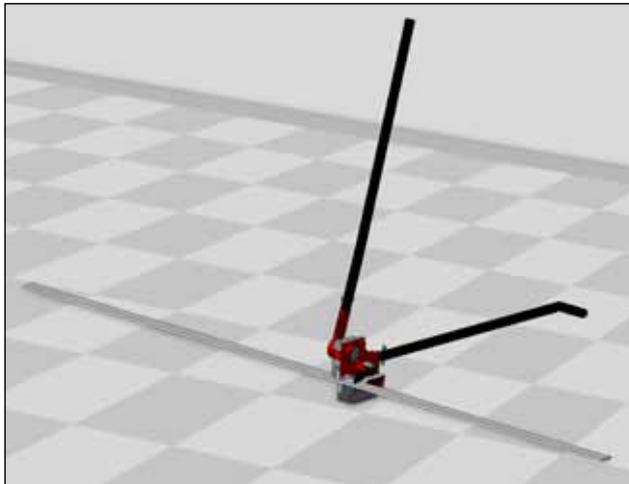
Move the lever to the original position after cutting is finished.



### 6.1 Cutting of rod material

Cut rod materials such as flat or round iron as shown with the angled tube supported on the floor. (See picture)

- place the shears on the floor
- insert the material into the open shears
- check the hold-down
- secure the shears against slipping by stepping onto the angled tube
- cut through the material by pressing down the lever, reposition as required.



#### **WARNING**

Step on the angled tube with only one foot.

### 6.2 Cutting of metal sheets

Always cut metal sheets so that the shears have free passage. The sheet metal should be on spacers (slats, bars) on a work table so that the lower leg of the shears has free passage.

#### **DANGER**

The sheet metal as well as the part cut off are also to be suitably secured against falling down.  
The material being cut and the shears can also fall down when cutting through the last part!  
There is a considerable risk of injury from parts falling down!  
Wear your personal protective equipment (PPE)

#### **WARNING**

Make sure that both operating tubes are always above the sheet metal!  
There is a risk of injury from "gripping" below the sheet metal!

#### **CAUTION**

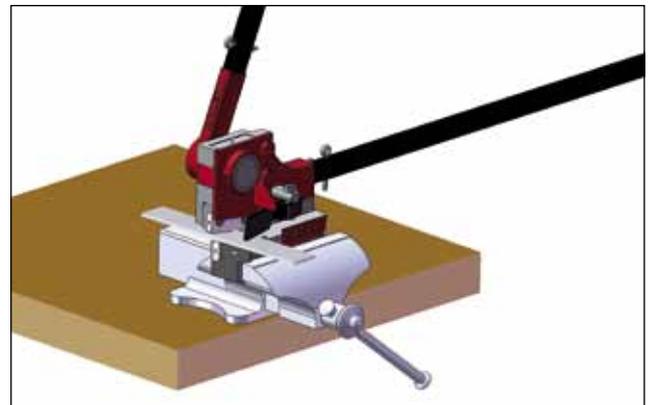
Secure the material and shears in a suitable way when you take a break from work.  
Persons or animals could be injured and objects damaged if the shears fall out of the cut sheet metal.

#### **NOTICE**

Only cut fully through the material when this is possible with a single cut. You will thus prevent sharp burrs forming on the cut edges.

### 6.3 Working with a vice

When working on small components you clamp the shears in the vice with the lower leg.



#### **DANGER**

The shears may fall down if they are not firmly clamped in the vice.  
There is a considerable risk of injury from parts falling down!  
Wear your personal protective equipment (PPE).

#### **WARNING**

Check the position of the operating tubes. There is a risk of injury from additional cutting and crushing zones with other objects, such as a vice or workbench.

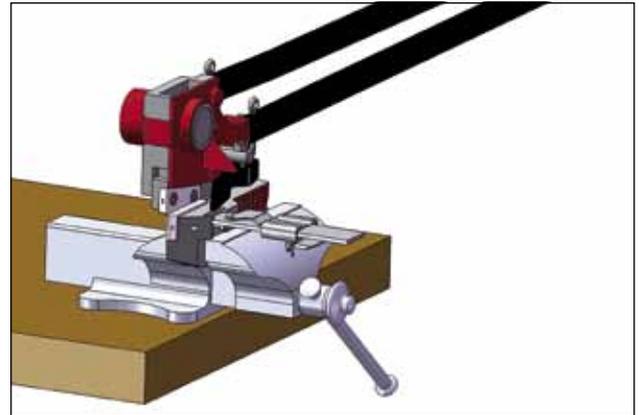
The hand lever can be used in both working directions.

#### ! ATTENTION

Secure small material being cut with a suitable tool.

#### i NOTICE

The hold-down does not have to be used for cutting thin sheets up to 0.8 mm thick.



### 6.4 Working with the stop

The stop can be inserted in the stop groove on the shear body when cutting strips, sections with equal length or for cutting of circular cuts such as circular blanks.

#### i NOTICE

The hold-down does not have to be used when the stop is used for cutting thin sheets up to 0.8 mm thick.

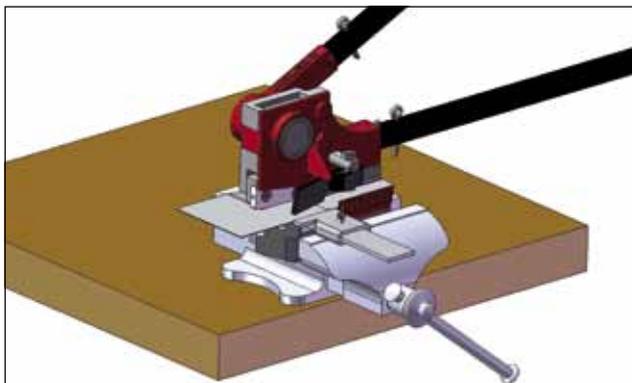
The stop bracket with the stop claw is used for cutting metal strips.

Clamp the shears in the vice with the lower leg.

Position the stop bracket in the stop groove on the shears body and clamp it with the corresponding screw.

#### ! ATTENTION

Make sure that the stop bracket has the correct height to the bottom blade.  
When the height of the stop system to the bottom blade is not correct, the material to be cut cannot be inserted at the correct position.

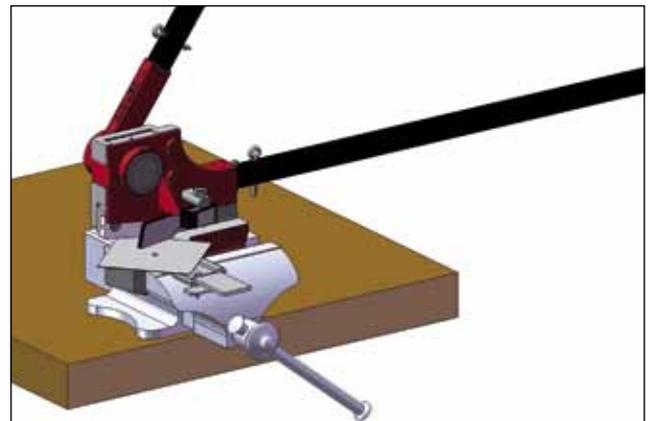


Use the round stop for cutting circular cuts or circular blanks.

Clamp the round stop with the stop claw slid on the bottom of the stop bracket.

Use a centre punch to mark a centre in the material or prepunch the material.

Use the round stop pivot as the reference centre for cutting



#### ! ATTENTION

Make sure the position of the round stop pivot is uniform to the reference centre in the circular blank.

### 7.1 Maintenance instructions

You ensure a long service life and readiness for use for your KIBLER UNIVERSAL metal cutting hand shears with maintenance and care.

The prevention of accident regulations must be complied with for all maintenance and care work. Hand, foot and eye protection must always be worn as personal protective equipment (PPE).

#### ENVIRONMENTAL PROTECTION

The national environmental regulations must be complied with for cleaning.

### 7.2 Maintenance intervals

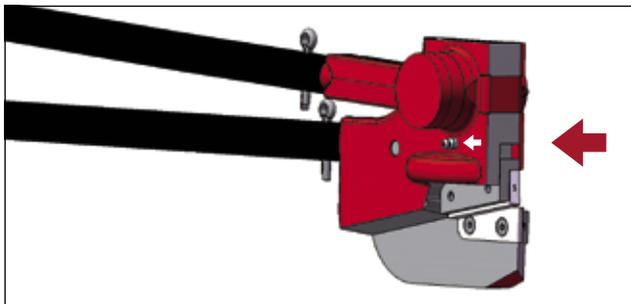
Daily cleaning:

Clean dirt from the shears daily.

Lubricate the moving parts of the KIBLER UNIVERSAL metal cutting hand shears daily with oil or grease at the following positions before you use the shears.



Alternatively, a grease nipple may be installed on the rear of the shears body. If there is one, use it as the lubrication point.



Apply a thin coat of grease or oil to unpainted surfaces on the shears as protection against corrosion

#### NOTICE

When the shears are used at sea or in coastal climates you must preserve the unpainted surfaces on the shears in a suitable way.

#### ENVIRONMENTAL PROTECTION

Old and excessive grease, oil and preservation agents must be disposed of in accordance with national regulations.

#### Checking the blade:

Check the blades for broken out places and for firm fit in the blade seat.

Replace broken out blades as described in Section 7.3. If the blades or blade screws are loose, tighten the blade screws as described in Section 7.3.

The blade screws must be tightened to  $11 \text{ Nm} \pm 0.5 \text{ Nm}$ .

#### DANGER

If the blades are broken out or loose, there is a considerable risk of injury from broken out parts as well as cutting and crushing zones between moved parts.

#### WARNING

Damaged or loose blades can damage the shears.

#### WARNING

Incorrectly ground blades may cause injuries. They always cause bad cutting results and can damage the shears

When the blades are damaged or have to be reground, replace them as described in Section 7.3 Replacing the blades.

### 7.3 Replacing the blades

Replacement of the shears blades is described below.

#### DANGER

During removal and installation of the blades when the lever tubes are fitted, there is a considerable risk of injury from cutting and crushing zones between moved parts.

#### DANGER

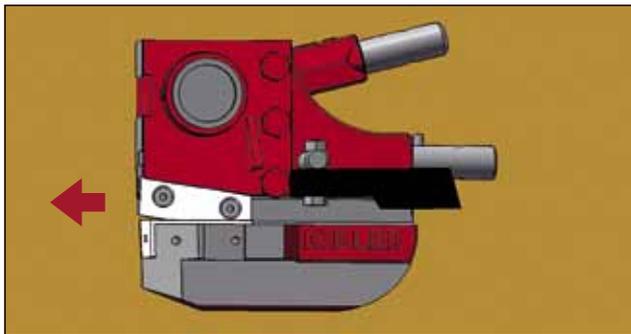
During removal of loosened blades from the shears, there is a considerable risk of injury from cutting and crushing zones between moved parts. Use a suitable tool! Wear your PPE!

For removal and installation of the blades you disassemble the operating tubes as described in Section 5.2.

#### 7.3.1 Removing the blades

Place the shears body on a stable working surface as shown.

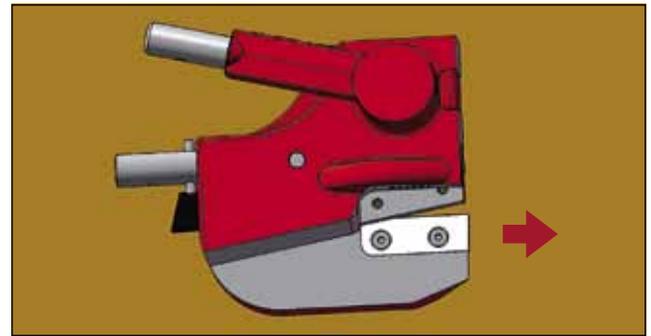
Check the position of the lever, otherwise the blade screws can not be fully screwed out.



Loosen the two screws on the top blade (hexagon socket WAF 4)

Pull out the top blade to the left (arrow) with a tool inserted through the screw holes of the blade.

Turn the shears body onto the front as shown

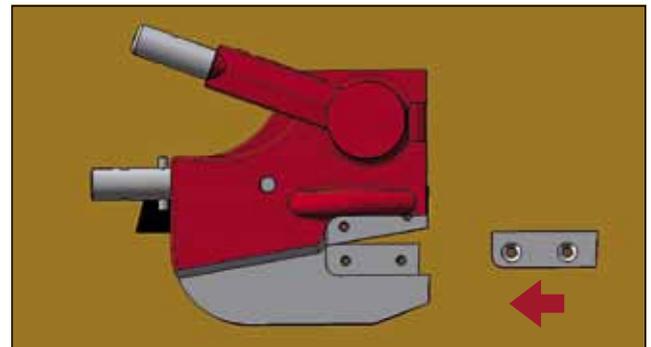


Loosen the two screws on the bottom blade (hexagon socket WAF 4)

Pull out the bottom blade to the right (arrow) with a tool inserted through the screw holes of the blade.

#### 7.3.2 Installing the blades

Place the shears body on a stable working surface as shown.



Make sure the blade is well fitted, apply a light coat of grease.

#### NOTICE

The threads of the blade screws are slightly offset to the holes on the blades. This is necessary to pull the blade into the blade seat!

Insert the bottom blade in the blade seat and secure it with the two blade screws. Tighten the blade screws to  $11 \text{ Nm} \pm 0.5 \text{ Nm}$ .

Turn the shears onto the rear, check the position of the lever.

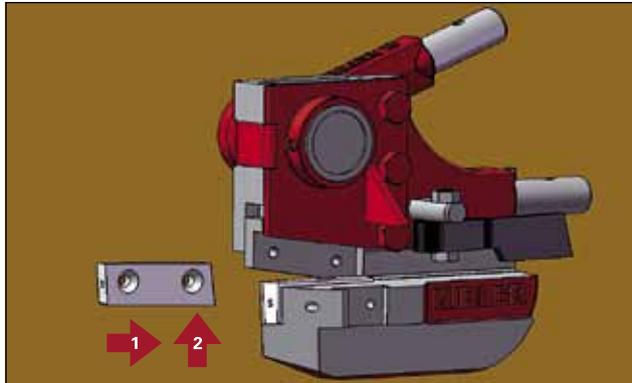
Make sure the blade is well fitted, apply a light coat of grease.

#### ATTENTION

Check the alignment of the shear blade. The punched blade quality must point to the left (see picture).

Slide the top blade into the blade seat from left to right. (Arrow 1)

Then press the blade upwards into the blade seat. (Arrow 2)



Secure the blade with the two blade screws. Tighten the blade screws to  $11 \text{ Nm} \pm 0.5 \text{ Nm}$ .

Check whether the blades can be moved freely against each other.

Clamp the shears in the vice and carry out a test cut with a thin sheet (0.4 – 0.6 mm).

#### CAUTION

Make a test cut without operating tubes. This considerably reduces the forces.

#### DANGER

Do not continue to use the shears when you notice that the blades can not be moved or the shears are very difficult to operate.

When the shears cut properly again, refit the operating tubes onto the shears as described in Section 5.2.

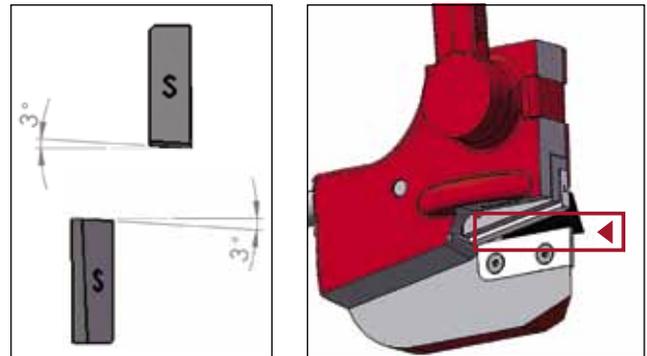
### 7.4 Regrinding the blades

If the blades are blunt, remove them as described in Section 7.3 and regrind them.

Regrind the blades only on the top of the cutting edge below  $3^\circ$ .

#### DANGER

The blades must slightly overlap when the shears are fully open. Otherwise there is a risk that parts of the blades may chip.



#### NOTICE

The blades have a clearance angle. The cutting gap will therefore be larger during regrinding, which is not relevant.

### 7.5 Specifications

MODEL	i	II
Overall length	780 mm	980 mm
Approx. weight	7.4 kg	8.6 kg
Blade length	70 mm	70 mm

Cutting capacities with **Normal** blades for material made from S235J0 (St 37-3 U) or 1.0114

Flat material	6 mm	8 mm
Round material	8 mm	10 mm
T- and L-iron	4 mm	5 mm
Sheet metal	3 mm	4 mm

Blades with the Special and Extra qualities can cut higher strength materials with the above material cross sections when higher operating forces are accepted.

With Special blades up to  $130 \text{ daN/mm}^2$

With Extra blades up to  $170 \text{ daN/mm}^2$

When you order spare parts, please always quote

- the shears type, I or II
- the blade quality, Normal, Special or Extra
- the serial number

The serial number is punched on the rear of the shears body.



Use only spare parts suitable for the shears type and which are approved by KIBLER WERKZEUGE GMBH. All claims under guaranty and warranty will become void when other spare parts are used.

The following spare parts are available:

- Spare blades, in pairs in the qualities Normal, Special or Extra
- Set of blade screws
- Operating tubes, in pairs, for size I or II depending on the model
- Set of cotter pins
- Stop system, complete

Exclusively the manufacturer's works is responsible for repairs that entail more than installation of the listed spare parts.

**!** ATTENTION

KIBLER WERKZEUGE GMBH will not assume any liability or warranty for any type of damage that results from unauthorised repair.

For spare parts or repairs, please contact your specialist dealer or us directly at.

Tel: +49 89 880380

Fax: +49 89 8349234

verkauf@kibler-werkzeuge.de