

Operation Manual

Beading Machine

62053



Illustration similar, may vary depending on model

Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!

Due to further developments, illustrations, functioning steps, and technical data can differ insignificantly.

Updating the documentation

If you have suggestions for improvement or have found any irregularities, please contact us.



The information contained in this document may alter at any time without previous notice. It is prohibited to copy or spread any parts of this document in any way without prior written allowance. All rights reserved.

The WilTec Wildanger Technik GmbH cannot be held accountable for any possible mistakes in this operating manual, nor in the diagrams and figures shown.

Even though, the WilTec Wildanger Technik GmbH has undergone biggest possible efforts to ensure that the operating manual is complete, faultless, and up to date, mistakes cannot be entirely avoided.

If you should find a mistake or wish to make a suggestion for improvement, we look forward to hearing from you.

Send an e-mail to:

service@wiltec.info

or use our contact form:

<https://www.wiltec.de/contacts/>

The most recent version of this manual in various languages can be found in our online shop via:

<https://www.wiltec.de/docsearch>

Our postal address is:

WilTec Wildanger Technik GmbH
Königsbenden 12
52249 Eschweiler
Germany

To return orders for exchange, repair, or other purposes, please use the following address. Attention! To allow for a smooth execution of your complaint or return, it is important to contact our customer service team before returning the goods.

Returns Department
WilTec Wildanger Technik GmbH
Königsbenden 28
52249 Eschweiler

E-mail: **service@wiltec.info**

Tel: +49 2403 55592-0

Fax: +49 2403 55592-15



Introduction

Thank you for purchasing this quality product. **To minimise the risk of injury we urge that our clients take some basic safety precautions when using this device. Please read the operation instructions carefully and make sure you have understood its content.**

Keep these operation instructions safe.

Description

- The beading machine is operated by hand and forms sheets up to a thickness of 0.8 mm. The machine is made of cast iron and steel, which ensures minimal deflection of the workpiece during forming.
- Six die sets included can be used to perform the following operations: large and small turning, beading, flanging, and milling.

Safety instructions

- Read all safety warnings and instructions before using the device. Failure to comply with the safety instructions can lead to property damage and injuries.
- Keep your work area tidy and ensure that there is adequate lighting. Untidy and poorly lit workplaces increase the risk of injury.
- Pay attention to your working conditions. Do not use the device in a damp or wet environment. Do not expose the device to rain.
- Keep children away from your work area. Do not allow them to operate the beading machine.
- Store unused devices and accessories. When not using the device, store it in a dry place. Lock it up securely and keep it out of children's reach.
- Do not use the beading machine forcibly. It works better and safer when used in the performance range for which it is intended.
- Put on appropriate protective equipment, e.g., protective goggles and safety gloves.
- Avoid loose clothing or jewellery and tie long hair together. Loose clothing, jewellery, or loose hair can get caught in moving parts and cause injury.
- Make sure that you have a secure stance and do not lean too far forward.
- Keep your hands and fingers away from moving parts. Risk of injury!
- Care for and maintain the device carefully. Keep it clean for better and safer performance. Keep the handle dry, clean, and free of oil and grease.
- Stay alert and focus your full attention on what you are doing. Do not use the device when you are tired or under the influence of alcohol, drugs, or medicine.
- Check the device for damaged parts before each use. Make sure that it can work safely. Check the beading machine for incorrectly aligned and blocked moving parts, broken parts, or defective assembly devices, as well as all other circumstances that could impair safe operation.
- If any part of the device is damaged, it should not be used any longer. Damaged parts must be properly repaired or replaced before using the beading machine again.

Unpacking

Check the parts delivered immediately upon receipt for possible damage and lacks. Refer to Fig. 1 and 3. In case of the device being damaged or parts missing, the device should not be operated until the parts have been replaced.

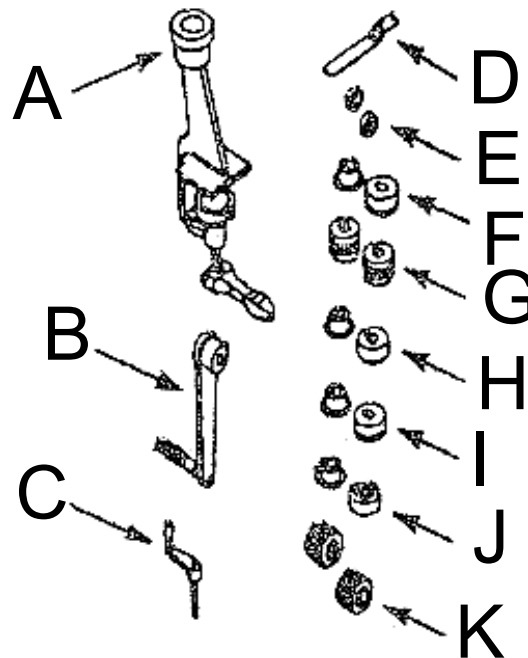


Figure 1

Nº	Name	Nº	Name
A	Base assembly group	G	Set of milling dies
B	Hand crank assembly group	H	Set of burring tools
C	Adjusting handle assembly group	I	Set of large rollers
D	Screw wrench	J	Set of flanging dies
E	Spacer (2×)	K	Set of crimping dies
F	Set of small rollers		

Important! The beading machine and dies are coated with a protective film. Remove the coating to ensure proper fit and operation. The coating can easily be cleaned with a mild solvent, e.g., mineral spirit, and a soft cloth. Avoid getting cleaning solution on paint or rubber/plastic parts. Solvents can damage these surfaces. Use soap and water to clean coloured parts or plastic/rubber parts. After cleaning, cover all exposed surfaces with a light layer of oil.

Warning! Do not use flammable detergents to avoid a possible fire hazard.



Technical specifications

Max. metal sheet thickness (mm)	0.8
Max. insertion depth (cm)	17.78
Insertion depth (cm)	0–17.78
Max. mounting surface thickness (cm)	5
Weight (kg)	22

Assembly (s. Fig. 3)

Base assembly group

Mount the base unit **(1–7)** in a suitable location on the workbench. The thickness of the mounting surface must not exceed 5.08 cm (2"). Fasten the unit with the clamping handle **(4)**.

Mounting the beading machine on the base

Mount the beading machine casing **(18)** on the base **(1)** and secure it with a hexagon screw **(7)**.

Mounting the handle on the machine

Attach the hand crank assembly **(8–12)** to the drive shaft **(53)**. Secure it with a hexagon head screw **(38–40, 60, 61)**. Install the adjustment handle assembly into the upper body **(18)**.

- Set the beading machine up on a level surface with sufficient lighting on a table or workbench.
- Make sure to have enough space to turn the hand crank.
- The area around the machine be free of debris, oil, or dirt.
- The beading machine should be on a non-slip surface.

Commissioning (s. Figs. 2 and 3)

Be sure to keep your hands away from the dies when turning the crank. The machine can process a maximum of 0.8 mm thick sheets. Below is a correspondence table for using the machine for other materials.

Material	Thickness (cm)
Soft steel	0.76 (0.30")
Stainless steel	0.58 (0.20")
Cold-rolled steel	0.60 (0.24")
Aluminium	1.39 (0.55")
Soft brass	1.16 (0.46")
Soft copper	1.16 (0.46")
Hard copper	0.86 (0.34")

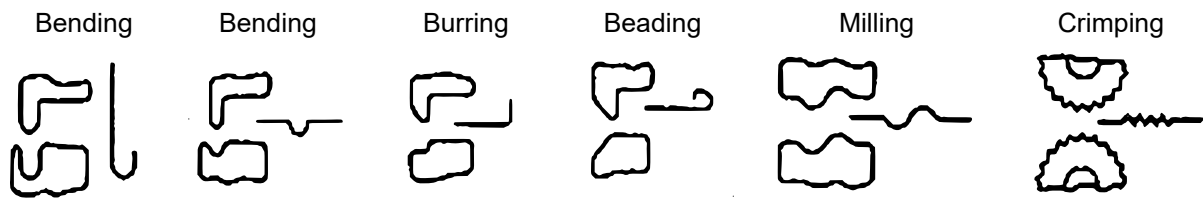


Figure 2: Side view of the dies included

1. Select the appropriate die for the work to be performed.
2. Place spacers (50), dies and retaining nuts (52) on the input and output shafts (47, 53). Tighten the retaining nuts with the wrench (59).
3. Adjust the position of the upper die according to the thickness of the workpiece using the adjustment handle (60).
4. Adjust the horizontal position of the upper punch by turning the adjusting nut (27).
5. Set the length stops (10, 15) or the stop plate (14) to the required size. The required size is the distance that the shape will have from the edge of the metal. Use the length stops for sheets and the stop plate for cylinders. The length stops can be precisely adjusted with the wing nuts (13).
6. Insert the metal between the dies and slowly rotate the crank arm (9). Check the workpiece. It may be necessary to refine the settings made in steps 3 and 4 again. Repeat steps 3 and 4 until the correct shape has been formed.

Maintaining (s. Fig. 3)

Lubricating

1. All exposed iron surfaces should be coated with light oil to prevent rust.
2. The setting block (35) should be greased.
3. Oil the drive shaft (53) monthly through the oil connections (17, 62).

Troubleshooting

Problem	Possible cause	Possible solution
Dies cut through metal	Dies have a too small distance to each other.	Adjust the position of the dies with the adjusting handle.
Dies do not shape correctly	1. Dies incorrectly adjusted	1. Adjust the position of the dies with the adjusting nut.
	2. Loose winged screw (36)	2. Re-tighten the winged screw.
	3. Material worked on too thick	3. Do not exceed the 0.8 mm max. metal sheet thickness (s. chart).
Crank arm difficult to be turned	1. Loose or incorrectly positioned setting block (35)	1. Adjust the adjusting nut (21) and fix it by tightening the lock nuts (20). Untighten the knob (22) and adjust the position of the setting block (35) by turning the adjusting screw (33), re-tighten the knob (22).
	2. Incorrect lubricating	2. Lubricate correctly (s. "Lubricating").



Parts list

№	Name	Qty.	№	Name	Qty.
1	Base	1	32	Round plate	1
2	Locking screw	1	33	Adjustment screw	1
3	6×45 mm drill bolt	1	34	M6 1.0×14 mm flat headed screw	4
4	Locking handle	1	35	Setting block	1
5	Locking ring	1	36	Winged screw	1
6	3×36 mm cotter pin	1	37	Spring	1
7	M10 1/5×25 mm claw bolt	1	38	Adjustment handle	1
8	M8 1.25×15 mm adjusting screw	1	39	1/8×7/8" drill bolt	1
9	Crank arm	1	40	Adjusting screw	1
10	Stop jig (left)	1	41	Sleeve	1
11	Handle	1	42	Spring	1
12	Handle bolt	1	43	Muffle	1
13	Winged nut	4	44	Setting block	1
14	Stop plate	1	45	6×20 mm wrench screw	1
15	Stop jig (right)	2	46	5×32 mm drill bolt	1
16	Shaft sleeve	1	47	Drive shaft	1
17	Oil connection	1	48	M8–1.25×20 mm hexagon screw	1
18	Body	1	49	6×6×25 mm wrench screw	2
19	Adjusting screw	1	50	Spacer	4
20	Lock nut	2	51	Double crimping tool sett	1
21	Adjusting screw	2	52	Retaining nut	2
22	Knob	1	53	Drive shaft	1
23	6 mm steel ball	2	54	Double tool set of small rollers	1
24	5×35 mm drill bolt	1	55	Double milling tool set	1
25	Cover	1	56	Double burring tool set	1
26	M8 1.25×35 mm hexagon screw	2	57	Double tool set of large rollers	1
27	Adjusting nut	1	58	Double flanging tool set	1
28	Gear unit	1	59	Wrench screw	1
29	Gear unit	1	60	Handle	1
30	Square plate	1	61	Handle bolt	1
31	M5 0.8×8 mm flat headed screw	3	62	Oil connection	1

Exploded view

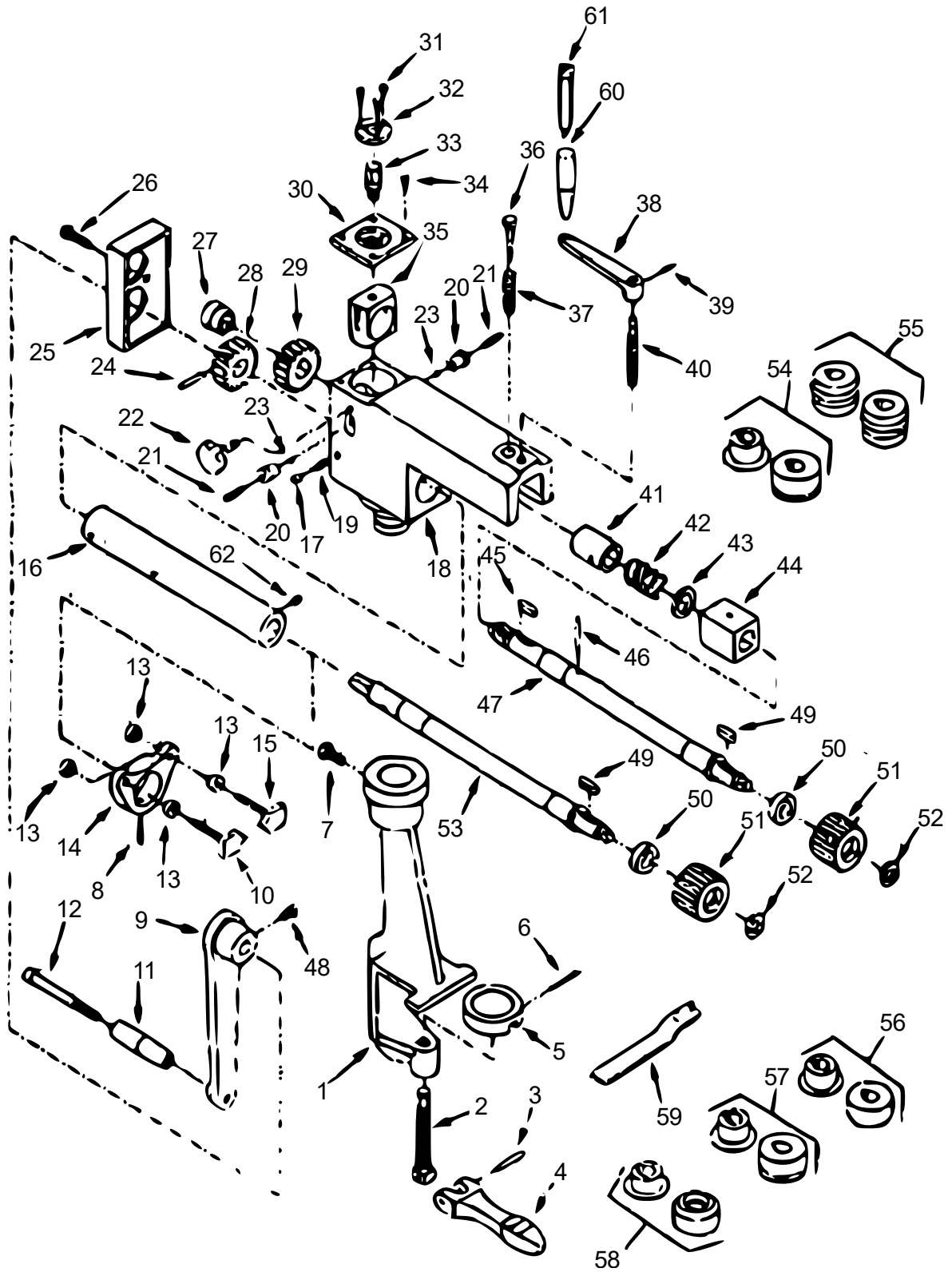


Figure 3

Important notice:

The reprint or reproduction, even of excerpts, and any commercial use, even in part, of this instruction manual require the written permission of WilTec Wildanger Technik GmbH.