

Operation Manual

12 t and 16 t Pipe Bender

51840, 61490



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.



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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.

Safety instructions

- Read the instructions thoroughly and familiarise yourself with the application control, application procedure, and warnings.
- The device should not be exposed to moisture. Do not use this device in damp or wet locations. Keep away from rain.
- Keep the working area clean and well-lit. An untidy or dark working area increases the risk of accidents.
- Keep children away from the work area. Children must be supervised to ensure that they do not play with the appliance. Keep unused tools out of the reach of children and untrained persons.
- Do not operate this device if you are under the influence of alcohol or drugs or if you are tired.
- Always take care of self-protection while working with this item. The use of ANSI approved safety goggles (everyday glasses are not safety goggles), non-slip safety shoes, safety helmet, and ear protection is recommended.
- Stay concentrated and do not allow distractions during bending.
- Do not attempt to operate this device near flammable materials or combustibles. Failure to do so may result in serious injury.
- Do not wear loose clothing, avoid long hair during bending and take off your jewellery. Loose clothing, long hair, jewellery, etc., may pose a potential danger when operating the device, take care of your safety.
- Always check the unit before use. Make sure that all parts are in good condition and work smoothly. If in doubt, do not use the item.
- Make sure that the bottle jack stands on a level and firm surface and that it cannot slip during use.
- Keep your hands away from moving parts.
- Use the correct tool for your application. Never exceed the rated load of the item.
- Never open screw connections under pressure/load.
- Before operating your pipe bender, make sure that no air is trapped in the pipe bender. Push the ram down until it fully retracts into the jack. This should displace all air.

Main features and technical specifications

This pipe bending machine is designed to bend water pipes, rigid pipes and high wall thickness galvanised pipes used in commercial applications and other similar types of pipes. When bending thin-walled pipes (pipe or line), fill the pipe with sand and close the ends before bending.

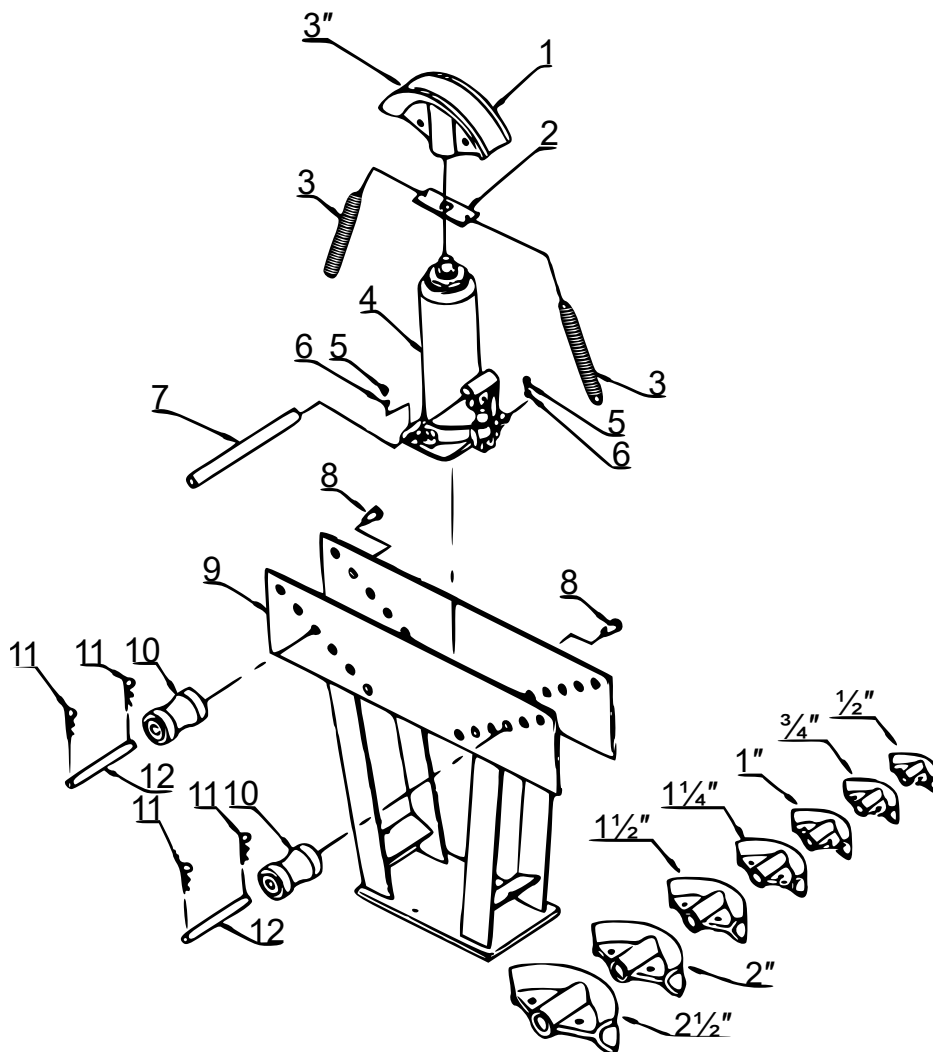
Item №	Capacity (t)	Module sizes (cm)	Net weight (kg)	Dimensions (mm)	Max. bending degree (°)
51840	12	2.13 (1/2"), 2.69 (3/4"), 3.37 (1"), 4.24 (1 1/4"), 4.83 (1 1/2"), 6.03 (2")	30	630×170×540	90
61490	16	1.27 (1/2"), 1.91 (3/4"), 2.54 (1"), 3.18 (1 1/4"), 3.81 (1 1/2"), 5.08 (2"), 6.35 (2 1/2"), 7.62 (3")	63	610×185×560	90

Assembly

1. Fasten the jack to the frame by using a hexagonal screwdriver.
2. Place the plate on the head of the jack. Connect the plate to the frame using the two springs.
3. Fully lift the jack plunger with the handle.
4. Open the outlet valve on the lift by turning it counter-clockwise.
5. Before operating your pipe bender, make sure that there is no air trapped in the pipe bender. Push the ram down until it fully retracts into the jack. This should displace all air.
6. Continue to press the top of the ram while closing the exhaust valve. Repeat if necessary.

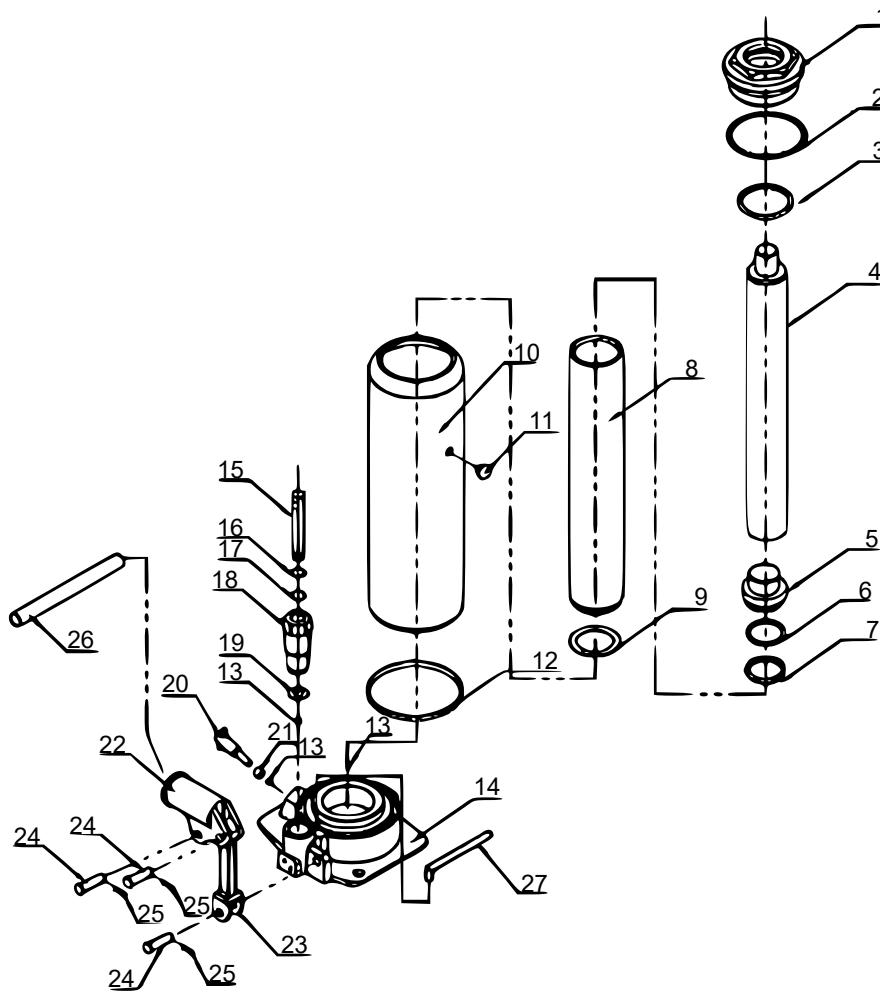
Exploded views and parts lists

16 t pipe bender



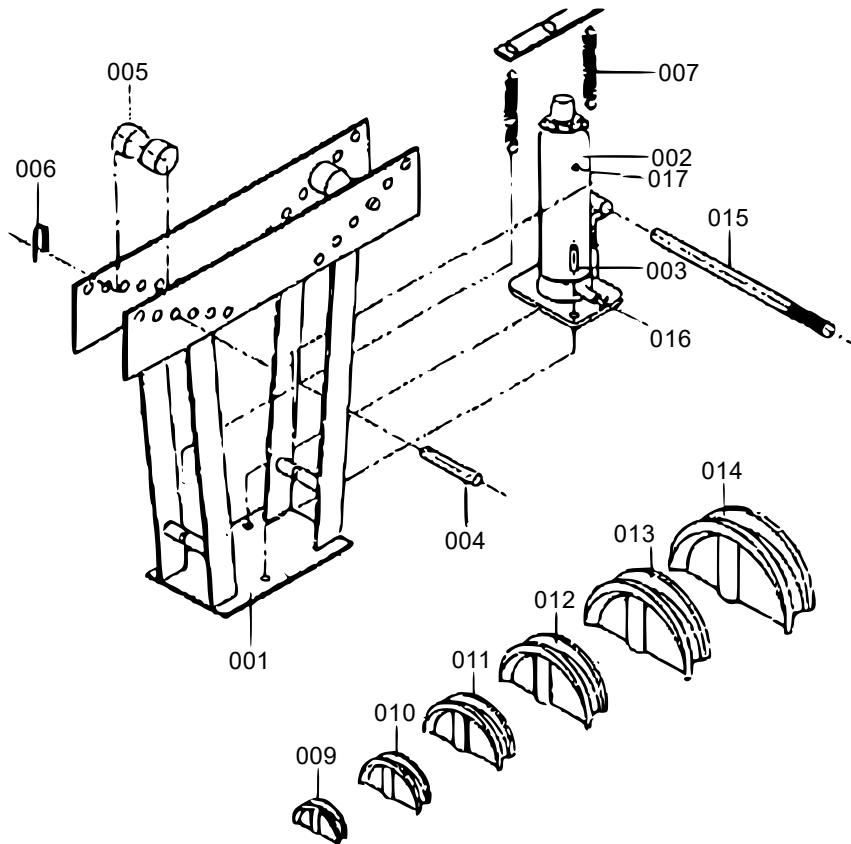
Nº	Description	Qty.	Nº	Description	Qty.
1	Bending die	8	7	Handle	1
2	Tensions spring plate	1	8	Bolt M14×35	2
3	Spring	2	9	Pin	1
4	Bottle jack	1	10	Roller	2
5	Bolt M8×20	2	11	Pin 2	4
6	Washer	2	12	Roller pin	2

Bottle jack



Nº	Description	Qty.	Nº	Description	Qty.
1	Cap	1	15	Pump core	1
2	Rectangular ring	1	16	O-ring 3	1
3	O-ring	1	17	Slotted washer	1
4	Piston Rod	1	18	Pump body	1
5	Piston	1	19	Pump washer	1
6	O-ring 2	1	20	Release valve lever	1
7	Bowl washer	1	21	Rectangular ring	1
8	Cylinder	1	22	Pump sleeve	1
9	Cylinder washer	1	23	Connecting rod	1
10	Coat	1	24	Pin	3
11	Oil plug	1	25	Steel wire pin	3
12	Trapezoidal ring	1	26	Handle	1
13	Cylinder ball	3	27	Oil suction pipe	1
14	Base	1			

12 t pipe bender



No	Name	Qty.	No	Name	Qty.
1	Bottom case	1	10	3/4" module	1
2	Hydraulic bottle jack	1	11	1" module	1
3	Bolt	2	12	1 1/4" module	1
4	Pin	2	13	1 1/2" module	1
5	Guide wheel	2	14	2" module	1
6	Jump ring	2	15	Handle bar	1
7	Spring	2	16	Oil outlet valve	1
8	Top tray	1	17	Oil injection hole	1
9	1/2" module	1			

Operation

- Read the entire section of the safety instructions at the beginning of this manual, including all relevant information.
- Check the tool for damaged, loose, and missing parts before use. If any problems are found, do not use the tool.
- **Note:** You may want to practice using the tube bending machine on scrap parts first.

IMPORTANT! Check the correct level of hydraulic oil in the jack before using the machine for the first time. Also check that the unit is functioning properly. If it does not work, remove air from the hydraulic system according to the instructions.



Remove excess air from the hydraulic system

1. Open the exhaust valve.
2. Remove the oil filler plug and fill the jack with hydraulic oil to the full level.
3. Exert pressure on the saddle and pump the handle several times quickly.
4. Check the oil filling opening and top up the oil filling opening with hydraulic oil if necessary.
5. Replace the oil filler plug and close the drain valve.

The pipe bending machine is designed to bend water pipes and heavily galvanised pipes. With thin-walled pipes, you may have problems with kinks or folds. To prevent this, fill the pipe with sand and close both ends before bending.

Instructions for use

1. Always use this pipe bending machine only in the upright position. Make sure that there is enough space on all sides of the pipe bending machine for the length of the pipe you want to bend.
2. Place the machine on a firm, level, even surface that can support the weight of the pipe bending machine. When used on a workbench, we recommend screwing or clamping the machine.
3. Select the bending die that corresponds to the size of the pipe you want to bend. Place the selected bending die on the bottle holder.
4. The rollers must be adjusted so that the top of the pipe to be bent presses against the bottom of the rollers. The pipe can be bent from a flat curve to a 90° angle.

Adjusting the rollers

1. Remove the pins of the two roller rails and slide the roller rails out of the rollers and release the rollers from the frame.
2. Place the pipe to be bent on the die and determine where to place the pipe at the holes in the frame.
3. Remove the pipe.
4. Hold one of the rollers over the selected hole and fix it with the pin. Repeat this procedure for the remaining roller and for the roller rails.

General operation

1. Push the pipe that you want to bend through the pipe bender between the die and the rollers.
2. Tighten the outlet valve on the bottle lifter with the slotted end of the handle clockwise.
3. Insert the handle into the pump sleeve and pump it up and down to lift the jack and bend the pipe.
4. When the tube has been bent to the desired angle, remove the handle from the jack.
5. Loosen the valve loosening screw one full turn (counter-clockwise). This loosens the pipe and makes it easy to remove.

Maintenance

1. Check the general condition of the pipe bending machine before each use. Check for breaks, cracks, loose, or missing parts and any conditions that may affect the proper operation of the machine.
2. Before each use, thoroughly test the lift for proper operation before using it. If the lift does not appear to be functioning properly, follow the ventilation instructions.
3. Change the hydraulic oil at least once every three years. How to change the hydraulic oil:
 - When the jack is fully lowered, remove the oil filler plug.
 - Tilt the pipe bending machine so that the old hydraulic fluid can drain completely out of the housing and dispose of the old hydraulic fluid in accordance with local regulations.
 - Fill the housing completely with a high-quality hydraulic jack oil (not supplied) until the oil level reaches the mark.
 - Refit the oil filler plug.



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- Clean with a clean cloth using a cleaning agent or mild solvent and wipe dry.

Storage

Store the bending machine in a safe, dry, upright position out of the reach of children and other unauthorised persons.

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