metallkraft
Metallbearbeitungsmaschinen

Operating Instructions

Hydraulic workshop press

WPP 50 M

WPP 50 M

WPP 50 M

Imprint

Product identification

Metallkraft

Hydraulic workshop press	Item number
WPP 50 M	4003050

Manufacturer

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Information on the operating instructions

Original instructions

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Copyright information

Content

1 Introduction

With the purchase of the METALLKRAFT column workshop press you have made a good choice.

Read the operating instructions carefully before commissioning.

They describe correct commissioning, intended use and safe as well as efficient operation and maintenance of your hydraulic workshop press.

The operating instructions is part of the hydraulic workshop press . Keep these operating instructions at the installation location of your hydraulic workshop press. Please also note the locally applicable accident prevention regulations and general safety regulations for the use of hydraulic workshop presses.

Illustrations in this operating manual serve the general understanding and may deviate from the actual design.

1.1 Copyright

1.2 Customer service

Please contact your dealer if you have any questions about your machine or technical information. There you will be happy to help with expert advice and information.

Germany:
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D-96103 Hallstadt

Repair-Service:
Fax: 0049 (0) 951 96555-111
Email: service@stuermer-maschinen.de
Internet: www.metallkraft.de

Spare parts orders:
Fax: 0049 (0) 951 96555-119
Email: ersatzteile@stuermer-maschinen.de

We are always interested in information and experiences that arise from the application and can be valuable for the improvement of our products.

1.3 Limitation of liability

All information and instructions in the operating instructions have been compiled taking into account the applicable standards and regulations, the state of the art as well as our many years of knowledge and experience.

In the following cases the manufacturer assumes no liability for damages:

- Failure to observe the operating instructions,
- Improper use,
- Use of untrained personnel,
- Unauthorized modifications,
- Technical changes,
- Use of unauthorized spare parts

The actual scope of delivery may deviate from the descriptions and illustrations in this document as a result of special variants, optional extras or recent

The obligations agreed in the delivery contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations valid at the time of the conclusion of the contract apply.

2 Safety

This section provides an overview of all major safety packages for personal protection and safe and trouble-free operation. Further task-related safety instructions are contained in the individual chapters.

2.1 Standards and guidelines

The design adheres to the essential health and safety requirements of applicable laws, standards and guidelines. The safety of the workshop press is documented by the CE marking and the declaration of conformity.

All safety information refers to the currently valid regulations of the European Union. In other countries, the applicable laws and regulations must be complied with.

In addition to the safety instructions in this operating manual, the generally valid regulations for accident prevention and environmental protection must be observed and adhered to.

2.2 Symbol explanation

Safety instructions

Safety instructions are indicated by symbols in these operating instructions. The safety instructions are initiated by signal words that express the extent of the hazard.

DANGER!

This combination of symbol and signal word indicates an immediately dangerous situation. It leads to death or serious injury if it is not avoided.

WARNING!

This combination of symbol and signal word indicates a potentially dangerous situation. It leads to death or serious injury if it is not avoided.

CAUTION!

This combination of symbol and signal word indicates a potentially dangerous situation. It may result in minor or slight injury if not avoided.

ATTENTION!

This combination of symbol and signal word indicates a potentially hazardous situation which, if not avoided, could result in property damage and environmental damage.

NOTE!

This combination of symbol and signal word indicates a potentially dangerous situation. It can lead to material and environmental damage if it is not avoided.

Tips and recommendations

Tips and recommendations

This symbol indicates useful tips and recommendations as well as information for efficient and trouble-free operation.

To reduce the risk of personal injury and property damage and to avoid dangerous situations, the safety instructions in this manual must be observed.

The term "machine" replaces the usual trade name of the device to which these operating instructions refer (see cover sheet).

2.3 Responsibility of the operator

Operator

The operator is the person who operates the machine for commercial or economic purposes himself or leaves it to a third party for use or application and bears the legal product responsibility for the protection of the user, the personnel or third parties during operation.

Operator obligations

If the machine is used in the commercial sector, the operator of the machine is subject to the legal obligations for occupational safety. For this reason, the safety instructions in this operating manual as well as the safety, accident prevention and environmental protection regulations applicable to the area of application of the machine must be observed. The following applies in particular:

- The operator must inform himself about the applicable health and safety regulations and, in a risk assessment, also determine additional hazards that result from the special working conditions at the place of use of the machine. He must implement these in the form of operating instructions for the operation of the machine.
- The operator must check during the entire period of use of the machine whether the operating instructions he has prepared comply with the current state of the regulations and adjust them if necessary.

- The operator must clearly regulate and determine the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operator must ensure that all persons handling the machine have read and understood this manual. In addition, he must train the staff at regular intervals and inform them about the dangers.
- The operator must provide the personnel with the necessary protective equipment and bind the wearing of the required protective equipment.

Furthermore, the operator is responsible for ensuring that the machine is always in perfect technical condition. Therefore, the following applies:

- The operator must ensure that the maintenance intervals described in this manual are observed.
- The operator must have all safety equipment regularly checked for functionality and completeness.

2.4 Qualification of the staff

The different tasks described in this manual place different demands on the qualifications of the people who are entrusted with these tasks.

WARNING!

Danger due to insufficient qualification of persons!

Insufficiently qualified persons can not assess the risks involved in handling the machine and expose themselves and others to the risk of serious or fatal injuries.

- All work should only be carried out by qualified persons.
- Keep inadequately qualified persons out of the work area.

Only persons who are expected to carry out this work reliably are permitted for all work. Persons whose reactivity z. As influenced by drugs, alcohol or drugs are not allowed.

This manual identifies the qualifications of the persons listed below for the different tasks:

Operator

The operator has been instructed in a briefing by the operator about the tasks assigned to him and possible dangers of improper behavior. The operator may only carry out tasks that go beyond normal operation if this is specified in this operating manual and the operator has expressly entrusted this to him.

Electrician

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, the electrician is in a position to carry out work on electrical systems and to independently recognize and avoid possible dangers.

The electrician is specially trained for the work environment in which he works and knows the relevant standards and regulations.

Specialist staff

Due to their technical training, knowledge and experience, as well as knowledge of the relevant standards and regulations, qualified personnel are in the position to carry out the work assigned to them and to recognize possible dangers independently and to avoid hazards.

Manufacturer

Certain work may only be carried out by specialist personnel of the manufacturer. Other personnel are not authorized to carry out this work. To carry out the work, contact our customer service.

2.5 Personal protective equipment

Personal Protective Equipment is intended to protect people from compromising safety and health at work. Personnel must wear personal protective equipment during work on and with the Pillars Workshop Press, which is specifically indicated in the separate sections of this manual.

The following section explains personal protective equipment:

Eye, Ear and Head protection

The goggles protect the eyes from flying parts and liquid splashes.

Hearing protection protects ears from hearing damage caused by noise.

The industrial helmet protects the head from falling objects and knocking against fixed objects.

Safety gloves

Safety gloves are intended to protect the hands from components with sharp objects as well as friction, abrasion, and deep-cut injuries.

Safety boots

Safety boots protect feet from pinching, falling parts and slipping on slippery surfaces.

Protective clothing

Protective clothing is tight-fitting work clothing with-out-protruding parts, usually with a lower tear resistance.

2.6 Safety measures for personal protection

Please note the following:

- Work with reason and focus. Do not use the machine if you are not concentrated.
- Operation or maintenance of the machine is prohibited for persons under the age of 16 or under the influence of alcohol, drugs or medication.
- Before starting work, find out about the type of material to be processed and any health hazards.
- Take appropriate precautions, if necessary.

Wear safety goggles!

Always wear protective goggles when working with the press.

Ear protection

If necessary, protect yourself from noise by wearing suitable and approved ear protection.

Protective gloves

Workpieces can be sharp-edged. Never touch the workpieces with bare hands. Wear protective gloves if necessary.

Safety shoes

Avoid unnatural posture and maintain balance at all times. Wear work shoes to increase their stability. Wear appropriate work clothes.

DANGER!

Wearing loose clothing (ties, scarves, open jackets and tight-fitting clothing) is prohibited. There is a risk of injury from being caught or pulled. For long hair, a hairnet should be worn.

2.7 General safety instructions

Please note the following:

- Always keep the machine and its working environment clean. Ensure adequate lighting.
- The Hydraulic Column Workshop Press may not be modified in design and may not be used for purposes other than those foreseen by the manufacturer.
- Never work under the influence of concentration-disturbing illnesses, fatigue, drugs, alcohol or medicines.
- Keep children and persons not familiar with the Hydraulic workshop press away from their work environment.
- Switch off the machine and disconnect the mains plug as soon as you replace operating resources or wearing parts.
- Do not pull on the mains lead to pull the plug out of the socket. Protect the cable from heat, oil and sharp edges.
- Disruptions that affect safety are eliminated immediately.
- Protect the pillar workshop press from wetness.
- Before each use of the pillar shop press, make sure that no parts are damaged. Damaged parts must be replaced immediately to avoid danger sources.
- Do not overload the column workshop press! You work better and safer in the specified performance range.
- Only use original spare parts and accessories to avoid possible risks and risks of accidents.
- any manipulation protective covers and other safety devices are prohibited.
- Before each use, the machine should be checked for externally visible damage.

- After longer work breaks, the operating behavior is observed.
- In the event of safety-relevant deviations from the delivery condition, the machine must be inspected by an authorized specialist and, if necessary, repaired.
- From the point in time when the machine is no longer in the normal operating condition, the machine must be taken out of service until repaired.
- Keep the work area and the floor in the vicinity of the machine free of any objects that endanger your stability or pose a risk of tripping. Keep order in the workplace. Clutter can result in accidents.
- Never use the press to compress compression springs or similar parts together.
- Observe the maximum dimensions of the workpieces given in the technical data (see "Technical Data").
- Always maintain the maximum pressing force and always pay attention to the pressure level of the pressure gauge.
- Regularly check the stability of the machine and, if necessary, the secure screw connection with the foundation.
- Do not leave any tools stuck. Before switching on, check that all repair and adjustment tools have been removed.
- Do not work on workpieces that are not resting securely on the worktable or that are sufficiently fixed.
- Note that using tools other than those recommended by the manufacturer and other accessories may result in injury to you.
- Do not leave any tools stuck. Before switching on, check that all repair and adjustment tools have been removed.

DANGER!

Unauthorized modifications or changes, especially those that affect the safety of the machine operator, are generally prohibited.

Technical changes, alterations and extensions made by the user on the machine can invalidate the CE conformity of the machine and are the responsibility of the operator.

DANGER!

In the interest of further technical development or changing regulations, the manufacturer reserves the right to make changes to the characteristics of the product at any time without prior notice.

2.8 Safety instructions for the pillar workshop press

WARNING!

Only use the hydraulic column workshop press for its intended purpose!

1. Do not work casually on parts when the piston is in motion or under pressure.

2. The safety valve is set by the manufacturer.
   Never try to adjust the valve! Failure to follow these instructions can cause serious damage to the machine or to persons!

The manufacturer is not liable for any personal injury or property damage caused by improper handling!

2.9 Safety markings on the pillar workshop press

The pillar workshop press has safety markings (Fig. 1) which must be observed and followed.

The safety markings and instructions attached to the pillar workshop press must not be removed. Damaged or missing safety markings can lead to malfunctions, personal injury and material damage. They are to be replaced immediately.

If the safety markings are not immediately recognizable and comprehensible, the pillar workshop press must be taken out of operation until new safety markings have been applied.

Fig. 1: Safety Labels: Warning Sign: 1 Dangerous Voltage I 2 Risk of hand injuries I 3 prohibition sign: Do not enter I 4 Mandatory signs: Read operating instructions, Wear eye protection, Hand protection, Safety shoes, Wear protective clothing, Disconnect power plug before work

3 Intended Use

The hydraulic pillar workshop press WPP 50 M is intended for use in mechanical workshops in the automotive and engineering industries. It is stationary and is fixed at the bottom of the installation site.

The press is ideally suited for pressing out and pressing in bearings, bushings, shafts and bolts as well as for stamping, bending and stamping. The hydraulic energy is built up by means of an electric pump.

It convinces with its easy handling. The table height adjustment is made via the built-in cylinder.

The workshop press is a machine driven by a hydraulic system with an integrated electric motor. The machine may only be used and operated as described in this manual. It must not be altered, manipulated or used for an unintended purpose. The workshop press may only be operated by persons who have been trained and trained in the use and maintenance of these machines.

Proper use also includes compliance with all information in this manual. Any use beyond the intended use or otherwise is considered misuse.

WARNING!

Risk of misuse!

Misuse of the pillar workshop press can lead to dangerous situations.

- Only operate the hydraulic pillar workshop press within the performance range specified in the technical data.
- Never bypass or override the safety devices.
- Only operate the hydraulic column workshop press in a technically perfect condition.

NOTE!

The improper use, unauthorized modifications or alterations to the workshop press and the disregard of safety regulations or the operating instructions exclude liability of the manufacturer for resulting damage to persons or objects and cause the warranty to lapse!

3.1 Misuse

By observing the intended use, no reasonably foreseeable misuse is possible, which could lead to dangerous situations with personal injury.

3.2 Residual risks

Even if all safety regulations are followed and the machine is used correctly, there are still residual risks listed below:

- There is a risk of injury to the upper limbs (e.g., hands, fingers).
- Danger of falling workpieces
- During set-up and set-up work, it may be necessary to dismantle on-site protective devices. This creates various residual risks and potential dangers that every operator must be aware of.

3.3 Safety measures during maintenance and servicing

DANGER!

All work on electrical and hydraulic systems may only be carried out by qualified personnel who have been trained to do so and who are familiar with the dangers involved.

Please note the following:

- After servicing, repairing and cleaning, check that all panels and guards are correctly installed on the machine and that there are no more tools inside or in the working area of the machine.

Damaged protective devices and machine parts must be replaced or repaired as intended by a recognized specialist workshop.

4 Technical Data

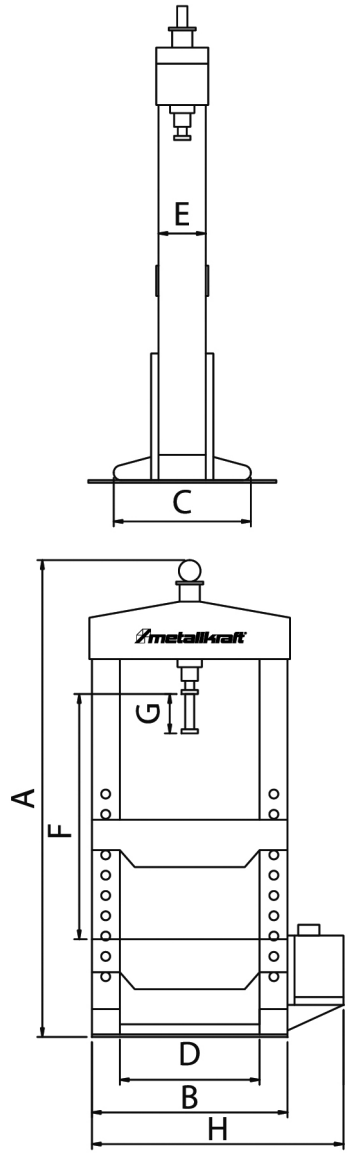


Fig. 2: Dimension

Model	WPP 50 M
Max. Pressing force	50 T
Max. Load prism jaw	12,5 T
Forward speed(mm/s)	10
Pressing speed(mm/s)	1,5
Electrical Data	
Power supply (V)	400
Engine power(kW)	1,5
Connection of supply cable (mm²)	5 x 1,5
Hydraulic system	
Pressure (bar)	400
Tank capacity(Liter)	30
Line content, incl. Cylinder (Liter)	18
Flow (Liter/min)	16 / 1,2
Dimensions	
Height [A] mm	2290
Width without pump [B] mm	985
Depth [C] mm	650
Light width[D] mm	790
Deep hole rack[E] mm	210
Light height [F] mm	1050
Stroke[G] mm	250
Width with pump [H] mm	1350
Weight (kg)	420

4.1 Type plate

The type plate with the following identification data and the CE marking are attached to the pillar workshop press (Fig. 3).

Fig. 3: Type plate WPP 50 M

5 Transport, Packaging and Storage

5.1 Delivery and Transport

Delivery

Check the hydraulic pillar workshop press for visible transport damage after delivery. If the column workshop press shows damage, it must be reported immediately to the transport company or the dealer.

Transport

Improper transport is accident-prone and can cause damage or malfunctions for which we do not grant any liability or guarantee.

Transport the scope of delivery secured against shifting or tilting with a sufficiently dimensioned industrial truck to the installation site.

WARNING!

Severe or fatal injuries may occur if parts of the machine tumble or fall down from the forklift truck, pallet truck or from the transport vehicle. Follow the instructions and information on the transport box.

Note the total weight of the machine. The weight of the machine is indicated in the "Technical data" of the machine. When the machine is unpacked, the weight of the machine can also be read on the rating plate.

Only use transport devices and load suspension gear that can hold the total weight of the machine.

WARNING!

The use of unstable lifting and load suspension equipment that might break under load can cause severe injuries or even death. Check that the lifting and load suspension gear has sufficient load-bearing capacity and that it is in perfect condition.

Observe the accident prevention regulations issued by your Employers Liability Insurance Association or other competent supervisory authority, responsible for your company.

Fasten the loads properly.

General risks during internal transport

WARNING: DANGER OF TIPPING

The device may be lifted unsecured by a maximum of 2cm.

Employees must be outside the danger zone, the reach of loads.
Warn employees and, if necessary, advise employees of the hazard.

Devices may only be transported by authorized and qualified persons. Act responsibly during transport and always consider the consequences. Refrain from daring and risky actions.

Gradients and descents (e.g. driveways, ramps and the like) are particularly dangerous. If such passages are unavoidable, special caution is required.

Before starting the transport check the transport route for possible danger points, unevenness and disturban-ces as well as for sufficient strength and load capacity.

Danger points, unevenness and disturbance points must be inspected before transport. The removal of danger spots, disturbances and unevenness at the time of transport by other employees leads to considerable dangers.

Careful planning of internal transport is therefore essential.

WARNING!

Danger of life!

If the weight of the pillar garment press and the permissible lifting capacity of the lifting equipment are not observed during transport or lifting, the pillar workshop press may tip over or fall.

- During transport and lifting operations, pay attention to the weight of the pillar workshop press and the permissible load capacity of the lifting equipment.
- Check lifting gear and load attachment means for perfect condition.

The hydraulic column workshop press may only be loaded and unloaded and transported by qualified specialist personnel.

Do not stack the machines. To avoid damage, do not place other objects on the machine during transport and storage.

To protect against moisture and dirt, all bare metal parts are greased. Make sure that this corrosion protection is intact and, if necessary, renewed before it can be re-stored and transported for a long time. Protect the machine from moisture and rain anyway.

For transport, the machine must be secured in accordance with the regulations on the loading area. All loose parts must either be firmly attached to the machine, segregated separately or stowed in a separate, secure container.

Transport by crane or forklift:

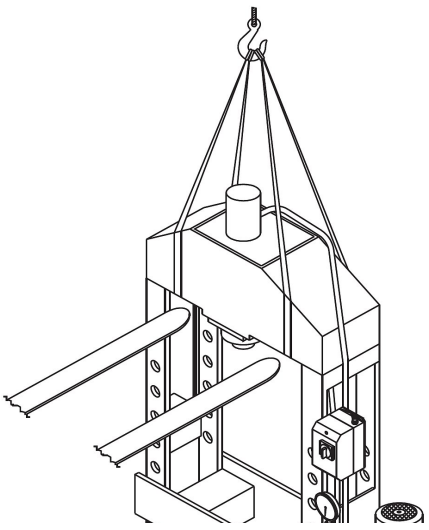


Fig. 4: Transport by crane or forklift

DANGER!

Danger to life due to falling of the load!

Falling loads can cause serious injury or even death.

- Never step under suspended loads.
- Fix loads carefully.
- When leaving the workplace, lower the load.

The hydraulic pillar workshop press can be placed in a suitable location with a crane. To do this, the column workshop press must be attached to the crane in accordance with the regulations (Fig. 4). Transport only with steel cables and hooks designed for the weight to be transported. The lifting points on the pillar workshop press intended for transport by crane or forklift must be used.

The hydraulic column workshop press must not be rocked during transport by crane.

5.2 Packaging

All packaging materials and packaging aids used in the pillar workshop press are recyclable and must always be recycled. Packaging components made of cardboard are crushed to give waste paper collection. The foils are made of polyethylene (PE) and the upholstery parts made of polystyrene (PS). These substances must be handed over to a recycling center or to the responsible disposal company.

5.3 Storage

Thoroughly clean the Hydraulic Column Workshop Press in a dry, clean, dust- and frost-free environment. It must not be shut down with chemicals in a room. During storage, all machine components should be covered with a plastic film. All bare metal surfaces are to be provided with a suitable rust protection. If the machine is stored for a long time, all bare metal parts must be greased against rusting.

Storage temperature range: -10 ° C to +40 ° C

5.4 Unpack and clean

The machine is already pre-assembled in the delivery condition with the exception of a few add-on parts. The scope of delivery also includes various accessories.

For protection, all parts of the machine that are susceptible to corrosion were factory-provided with protective waxes and greases. Before using for the first time, clean the machine with a suitable, environmentally friendly cleaning agent (we recommend kerosene for cleaning). Do not use solvents, nitro thinner or other cleaning agents that could damage the paint of the machine. Observe the information and instructions of the detergent manufacturer.

Ensure good ventilation during cleaning work to avoid any danger to health from toxic fumes. After the machine has been thoroughly cleaned, all bare machine parts must be lightly oiled. Use an acid-free lubricating oil.

6 Put up

ATTENTION!

Before setting up the machine, have the load-bearing capacity of the ground checked by a specialist. The floor or the hall ceiling must bear the weight of the machine plus all accessories and additional units, as well as operators and stored materials. If necessary, provide a necessary reinforcement of the substrate.

NOTE!

In order to achieve good functionality and long life of the machine, the site should meet certain criteria.

The following points should be noted:

- The device may only be installed and operated in dry, ventilated rooms.
- Avoid places near chips or dust generating machines.
- The place of installation must be vibration-free, ie away from presses, planing machines, etc.
- The substrate must be suitable for processing. Also pay attention to load capacity and flatness of the soil.
- There must be enough space for rust and operating personnel and material transport.
- Also consider the accessibility for adjustment and maintenance work.
- Ensure adequate lighting (minimum value at operating point: 300 lux).

6.1 Connecting to mains

DANGER!

Subsequent work for the connection of the machine to the power network may only be carried out by a trained electrician.

ATTENTION!

If the motor is connected incorrectly and therefore rotates in the wrong direction, this can lead to permanent and serious damage to the hydraulic pump.

The following points have to be carried out:

1) Before connecting the press, make sure that:

- The electrical supply is provided with the statutory protection devices;
- The supply line has the following cross-section: Voltage 400V / 50Hz Three-phase: min. 1.5 mm².
- The voltage fluctuations do not exceed the tolerances specified by the standard.

2) Connect the supply line to the terminals of the press:

The manufacturer supplies the electrical system ready for operation with 400 V three-phase.

3) Ground the machine.

4) After the press has been connected, make sure that the motor turns in the direction of the arrow.

5) Measure the oil level with the dipstick; If necessary, add hydraulic oil AGIP OSO 46 or ESSO NUTO 46 or equivalent hydraulic oil.

6) Slightly grease the pins of the winch.

7) Apply an oil film to the support pins of the work bed of the press.

7 Installation and commissioning

ATTENTION!

- Before the first start-up, the following operating points must be executed.
- Fill up only with suitable hydraulic oil. Do not use brake oil. Do not overfill oil container; an increased amount of oil can cause problems.
- If the hydraulic pump is filled with too little or too much hydraulic oil, this can lead to malfunctions and damage to the pump during operation. Make sure that the oil tank is filled correctly with the aid of the dipstick.

NOTE!

Do not build the press alone! Add at least one helper.
The workshop press is delivered as ready as possible. That that in the course of commissioning only a few work steps have to be done.

The following points have to be carried out:

- The press must be installed in closed, weather-protected rooms. In addition, the safety distances of columns, walls or other machines must be observed. The min. Safety distance is 600 mm.
- All parts of the press must be uniformly illuminated. The lighting must be sufficient to illuminate the press for operation, adjustment and maintenance. There must be no glare, dark or light reflection and the view must not be fatigued.
- The lighting must be in accordance with the relevant regulations applicable to the machine lighting at the place of installation (to be carried out by a lighting expert). The press must be attached to the floor. The floor must be perfectly flat and have adequate load-bearing capacity (see weights of the press). The press is fastened by means of dowels with a diameter of 12 mm (for example Fischer FZA M12 x 40 or equivalent). Attach the workshop press with suitable ground anchors in the foundation. Pay attention to the load-bearing capacity of the substrate. A tipping of the press may not be possible even with external force.
- Use the exploded view for the construction of the workshop press (see chapter "Spare parts").
- Be sure to tighten all screw connections of the assembled press before first use!
- Fill the pump with hydraulic oil.

The correct level of the oil tank can be read off the integrated oil dipstick.

Make sure the oil level is always between the marks on the dipstick that indicate the minimum and maximum oil levels.

8 Description of device

Illustrations in this operating manual serve the general understanding and may deviate from the actual design.

1. Pressure gauge
2. Hydraulic cylinder
3. Press ram
4. Machine frame
5. Holes for support bolts
6. Winch for table height adjustment
7. Press table
8. Support bolt for press table
9. Machine foot
10. Hydraulic hose for downward movement
11. Hydraulic hose for upward movement
12. Main switch
13. Electric box

14th edition prism

15. Control lever
16. Control valve
17. Pressure control valve
18. Hydraulic unit
    with a gear pump (low pressure and high flow rate -> fast speed)
    with a piston pump (with high pressure and low flow rate -> slow speed)
19. Oil tank

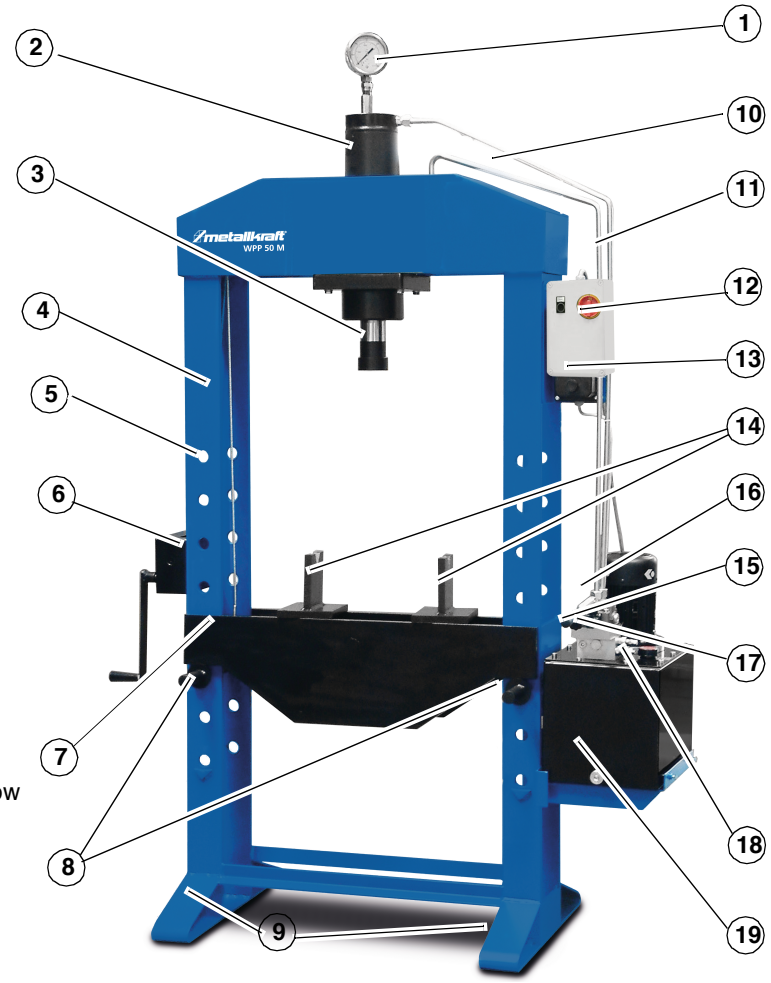
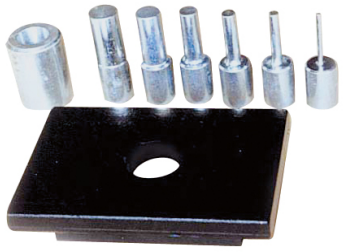


Fig. 5: Description of the pillar workshop press

8.1 Scope of delivery

- Hydraulic workshop press, pre-assembled
- 2-piece prism set for inserting round material
- Hand lever
- Winch for lifting and lowering the table
- Steel chain for table height adjustment
- Operating manual

8.2 Optional accessories

	Item	Item - Nr.
	Pressure mandrel set with perforated plate for WPP 50 M	4103050
	Perforated plate for WPP 50 M For processing flat material, press in bearings, bolts and the like, use optional perforated plate.	4104004

9 Operation

WARNING!

Keep all body parts away from the worktable and the plunger during the pressing process. Failure to comply can result in serious physical injury.

WARNING!

Never leave the loaded press unattended and do not stand directly in front of the press during the pressing process.

Never remove the mechanical, electrical or hydraulic protection devices.

IT IS PROHIBITED TO WORK WITH THE PRESS WORK BED WHEN THE WORK BED HANGS ON THE WINCH OR CHAIN LINES: WORKING ON THE PRESS SHOULD ONLY BE WHEN THE WORK BED OF THE PRESS IS FIXED TO THE FRAME WITH THE ACCORDING PINS, AND THE WINCH IS UNLOCKED.

THE WORK BED OF THE PRESS SHOULD NOT BE USED TO RAISE LOADS.

It is important to ensure that no unauthorized persons are in the vicinity of the press while working. Failure to follow the above instructions may result in serious damage to the press or personal injury.

THE MANUFACTURER IS NOT LIABLE FOR ANY DAMAGE TO THINGS OR FOR INJURIES CAUSED BY IMPROPER USE OF THE PRESS OR ITS INGREDIENTS.

9.1 Adjusting the table height

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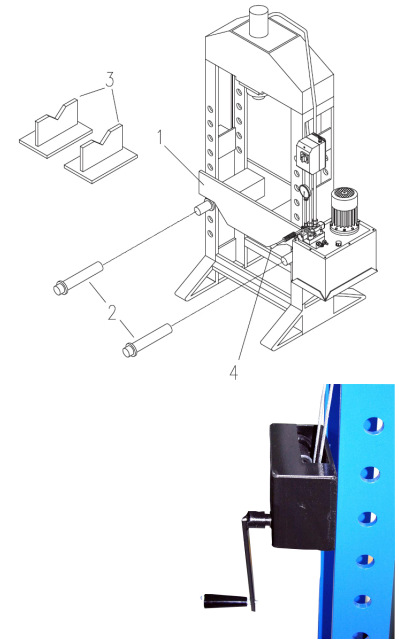


Fig. 6: Adjusting the table height

- Lift the press table by turning the winch handle clockwise.
- If the press table is to be lowered, first pull the support bolts out of the stator bores.
- Bring the table up to the desired high level. Leave space to import the support bolts.
- Insert the support bolts into the stator holes.
- Turn the crank of the winch counterclockwise and lower the press table down to the support bolts.

ATTENTION!

1.Any work may only be carried out if the press table lies completely on both support bolts and the handwheel of the winch is completely free to move. The table must not hang on the ropes..

2. Never operate the handwheel while the fingers are near the pulley. It is forbidden to remove the support bolts unless the cables are properly attached to the handwheel.

9.2 Set up the workspace

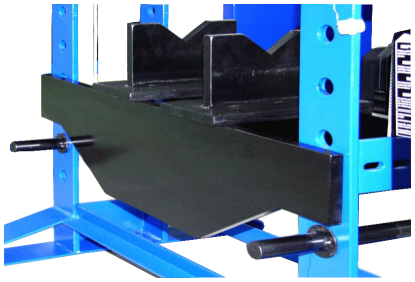


Fig. 7: Set up workspace

- Place the support prisms or other support and fixtures adapted to the workpiece on the press table.
- Place the workpiece in the working or clamping area of the press table.

ATTENTION!

When selecting workpiece restraints, make sure that they can absorb the maximum press force. The workpiece support must be designed so that it gives the workpiece a sufficiently secure hold during the entire working process and can not tip over from the press table.

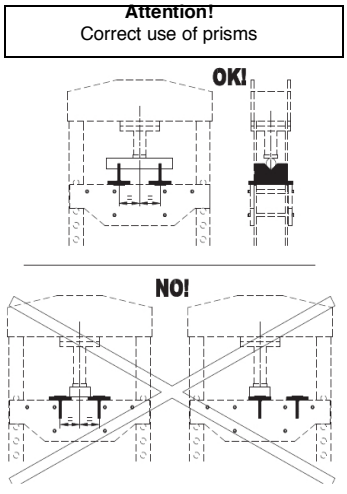


Fig. 8: Use of the prisms

ATTENTION!

Pay attention to the correct use when using the prisms.

9.3 Adjust the horizontal position

Align the chuck or workpiece so that its horizontal position is at the operating point of the hydraulic cylinder.

ATTENTION!

For even load distribution, the working point on the workpiece to be pressed should, if possible, be in the center thereof. Make sure that the force is transmitted as centrally as possible.

9.4 Build up the pump pressure

- Actuate the power switch of the hydraulic control (fig. 9, pos.1).
- Operate the operating lever 2 (Fig. 9) to lower the working cylinder; Perform the desired work and then bring the cylinder back in the opposite direction by operating the operating lever in the rest position. (2, Fig. 9).

ATTENTION!

During the pressing process, observe alternately the working area and the manometer in order to prevent possible damage to the press or workpiece due to overloading.

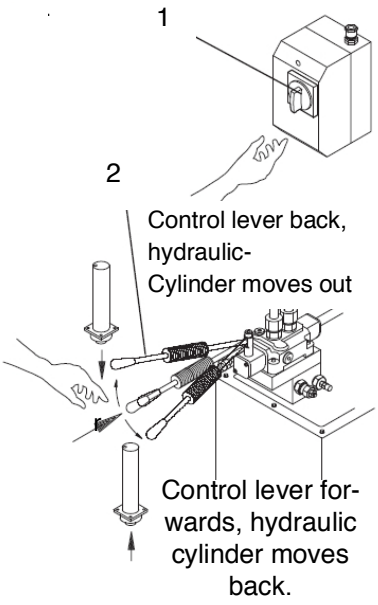


Fig. 9: Build up pump pressure

9.5 Retracting the hydraulic cylinder

Move the locked lever on the control valve to the right to clear the path for filling the hydraulic cylinder in the reverse direction. The hydraulic oil is pumped down into the cylinder. The oil above the piston automatically flows back into the oil reservoir.

Operating principle

In the approach phase (= fast speed), the hydraulic oil from the first-stage pump is drawn through the filter and pumped to the control valve, where also the oil from the second stage flows. From the hydraulic control the oil gets into the hydraulic cylinder. At the end of the approach phase, the pressure in the hydraulic circuit increases, causing the interstage valve to switch, causing the first stage oil to flow back to the tank, while the second stage builds up the pressure until the set maximum pressure is reached (= slow speed).

9.6 Setting the pressure

Both the low pressure and the high pressure of the hydraulic pump can be changed.

- To adjust the pressure of the low-pressure stage, remove the cap (Figure 11, item 1) and loosen the nut (Figure 10, item 2). The regulation takes place via the inner screw.

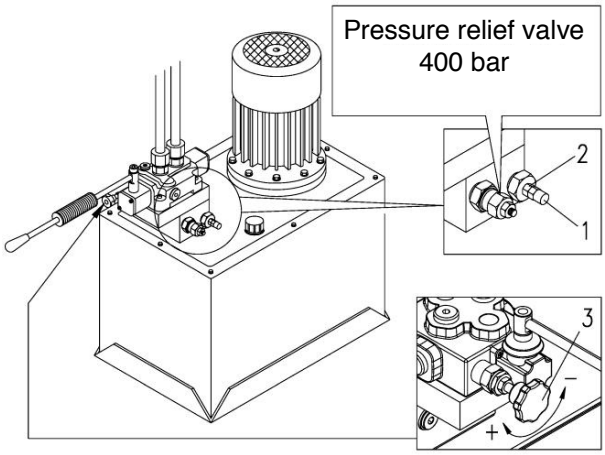


Fig. 10: Setting the press pressure

ATTENTION!

The setting of the low pressure is already preset by the manufacturer. Changes to it are only necessary or permitted after maintenance work or repairs.

- To regulate the high pressure, press the hand wheel (Fig. 10, Pos. 3) on the pressure control valve.

These settings should be made using the manometer!

ATTENTION!

Each increase in pressure causes an increase in the voltage consumption of the electric motor.

9.7 Edit workpiece

CAUTION

FIRST READ THE OPERATING INSTRUCTIONS!

Please read the operating instructions completely before you start the machine for the first time!

WARNING

Do not work on more than one piece at a time. Use the machine only for the intended purpose.

WARNING! EXPLOSION!

Never press containers for highly flammable or explosive substances, aerosols or pressurized containers.

Never press objects made of brittle materials such as concrete or stone.

Place the support prisms or other support and fixtures adapted to the workpiece on the press table.

Position the workpiece centered on the worktable or clamping area of the press table and fix it. If necessary, use a crane or suitable lifting equipment and devices to place the workpiece.

Fig. 11: Position the workpiece

The material should meet the following requirements:

- Dry and clean, free of oil.
- The diameter must correspond to the specifications.
- The material should have a degree of hardness throughout.
- Buying high quality material is advisable.

The surface of the areas to be processed should be smooth.

Wear safety boots!

Wear safety golves!

Wear protective clothing!

10 Maintenance

It is recommended to have the machine thoroughly cleaned and inspected by an approved service company at least once a year.

Once a year, visually inspect the entire press and its main components to make sure there are no defects. The hydraulic unit (cylinder / pump) is a sealed assembly, which generally only requires lubrication of its moving parts once every 6 months. If the hydraulic unit has a leak and is opened to replace the seals, add hydraulic oil through the filler neck. Add hydraulic oil to the specified oil level. Adding more oil could cause problems.

This operation must be performed on cylinders in rest and d. H. when the cylinder is fully retracted.

10.1 Visual inspection

Maintenance interval	Maintenance point
Daily	Visual inspection of the machine for contamination, clean if necessary (see chapter "Cleaning").
Weekly	Visual inspection of the machine for contamination, clean if necessary (see chapter "Cleaning").
Weekly	Visual inspection of the machine, in particular the hydraulic components on function u. Oil loss (pump, hoses, cylinders, pressure gauges, etc.), replace damaged components if necessary.
Every 2 month	Check the oil level and if necessary add hydraulic oil through the filler plug.
Every 6 month	Lubricate all moving parts of the press and check the function of the manometer. Clean the suction filter. The winch and its ropes lubricate. The ropes must be visually inspected and replaced if they show damage or other defects. Make sure that the hydraulic circuit between the hydraulic control and the cylinder as well as the cylinder itself has no leaks. In case of leaks, the seals should be checked and replaced if necessary.
200 Operating hours	Functional test of the entire machine for completeness or proper and safe operation, if necessary arrange for repair.
Every 2 years	The hydraulic fluid in the hydraulic unit must in any case be changed every two years, irrespective of the operating conditions of the press.

10.2 Maintenance tasks

Maintenance interval	Maintenance task
200 Operating hours	Lubricate the machine (see chapter "Operating materials" and "Lubrication")
3000 Operating hours	Change hydraulic oil (see chapter "Operating materials" and "Oil change")
If necessary	Top up hydraulic oil (see chapter "Operating materials" and "Oil change")

10.3 Lubrication

At the following lubrication points, lubrication of the components must take place according to the maintenance tasks:

Machine component	Smudge	Lubricating medium
Winch	Crankshaft bearings Transmission pulleys	**Grease** For lubrication, the grease should be applied to the listed components by means of a greased brush. Excess grease should be removed with a dry, non linting lint
Hydraulic hand pump	Press ram shaft at diverter valve	

10.4 Recommended supplies

Fuel	Specification	Manufacturer/Type (non-binding recommendation)	Amount
Hydraulic oil	AGIP OSO 46	ESSO NUTO 46	approx. 48 Liter
grease	ISO XM 2	OMV SIGNUM M 283	if necessary

10.5 Oil change

To drain the oil, the screwing on the retracted hydraulic cylinder must be opened. Then the hydraulic oil can be pumped out and collected at the end of the pipeline.

In case of an oil change or if the hydraulic pump loses oil, it is necessary to refill oil through the filler hole. During the process, the piston must be in the rest position, ie fully retracted.

10.6 Cleaning

- All plastic parts and painted surfaces should be cleaned with a soft, damp cloth and some neutral detergent.
- Never use solvents to clean plastic parts and painted surfaces. Surface annulment and consequential damage may occur. You may want to test the cleaning and dissolving behavior in a small area on an inconspicuous area of the machine.
- Wipe excess grease or spilled oil with a dry, lint-free cloth.

Wear safety gloves!

11 Disruptions, Possible causes and Measures

ATTENTION!

If one of the following errors occurs, stop working with the machine immediately. Before you begin troubleshooting, turn off the machine and unplug the power cord. All repairs or replacement work may only be carried out by qualified and trained specialist personnel.

Malfunction	Possible cause	Remedy
Pump does not work.	Overpressure valve open or defective.	1. Check valve spring, replace if necessary 2. Contact the service.
Pressure loss.	1. Air in the cylinder or in the pipes.	1. For venting, raise the piston once and lower it.
1. The pressure does not reach the maximum value. 2. The hydraulic control does not build up pressure.	1. Too low hydraulic oil level. 2. Too little oil density in the oil circuit. 3. Overpressure valve open or defective. 4. Pump defective. 5. Cylinder connection defective	1. Add hydraulic oil. 2. Seal or replace lines and connections. 3. Clean pressure relief valve and valve spring, replace if necessary. 4. Repair or replace the pump. 5. Repair connection or replace cylinder.
The pressure rises jerkily.	1. Air in the hydraulics. 2. Too little hydraulic oil. 3. Check if suitable oil is used.	1. Bleed hydraulic circuit. 2. Add hydraulic oil. 3. Use suitable oil.
The engine overheats.	1. Engine failure. 2. Unsuitable supply voltage.	1. Contact Customer Service. 2. Check supply voltage.

12 Disposal, Recycling of old equipment

Please dispose of your device in an environmentally friendly manner by disposing of waste not in the environment but in a professional manner.

Please do not simply discard the packaging and later dispose of the disused device, but dispose of them according to the guidelines established by your local authority or by the responsible disposal company.

Decommission

ATTENTION!

Disused devices must be taken out of service immediately in order to avoid later misuse and endangering the environment or people

12.1 Disposal of lubricants

Lubricant manufacturer available. If necessary, ask for the product-specific data sheets. The used hydraulic oil must be disposed of in accordance with the relevant regulations of the respective countries.

Please pay attention to an environmentally friendly disposal of the used coolants and lubricants.

13 Spare parts

DANGER!

Risk of injury due to incorrect spare parts!

The use of incorrect or faulty replacement parts can be dangerous to the operator and cause damage and malfunction.

- Only original spare parts from the manufacturer or replacement parts approved by the manufacturer must be used.
- In case of doubt, always contact the manufacturer.

Tips and recommendations

It must be used bending rolls that are suitable for the material to be processed.

13.1 Spare parts order

The spare parts can be obtained from the dealer.

Please contact your dealer for ordering spare parts and ask for a spare part drawing. Mark the desired part on the drawing and send it to your dealer for ordering.

Specify the following key data for inquiries or when ordering spare parts:

- Device type
- Item number
- Part name
- Construction year
- Amount
- Desired shipping method (post, freight, sea, air, express)
- Delivery address

Spare parts orders without details given above can not be considered. If the shipping method is missing, shipping will be at the discretion of the supplier.

Information on the device type, article number and year of manufacture can be found on the type plate, which is attached to the machine.

Example

The manometer for the Hydraulic workshop press WPP 50 M must be ordered. The manometer has the number R0059 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (manometer) and marked positon number (R0059) to the dealer or spare parts department and provide the following information:

Type of device:	Hydraulic workshop press WPP 50 M
Item number:	4003050
Drawing number:	1
Position number:	R0059

The item number of your hydraulic workshop press:

Hydraulic workshop press WPP 50 M : **4003050**

13.2 Spare parts drawings

The following drawings should help in case of service to identify necessary spare parts. To order, send a copy of the parts drawing with the parts marked to your authorized dealer.

Spare parts drawing 1: Press

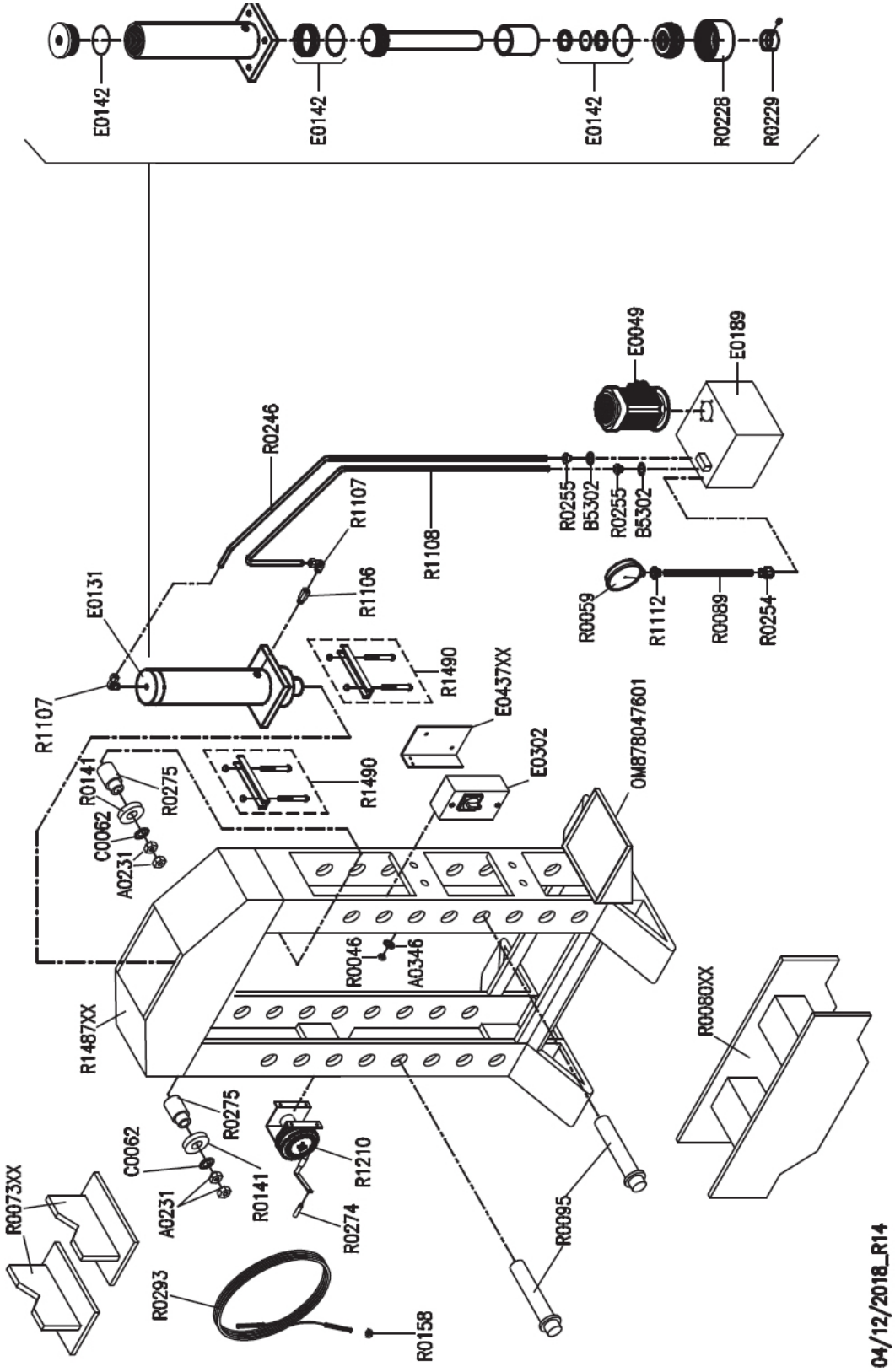


Fig. 12: Spare parts drawing 1 - WPP 50 M

Spare parts drawing 2: Electrical box

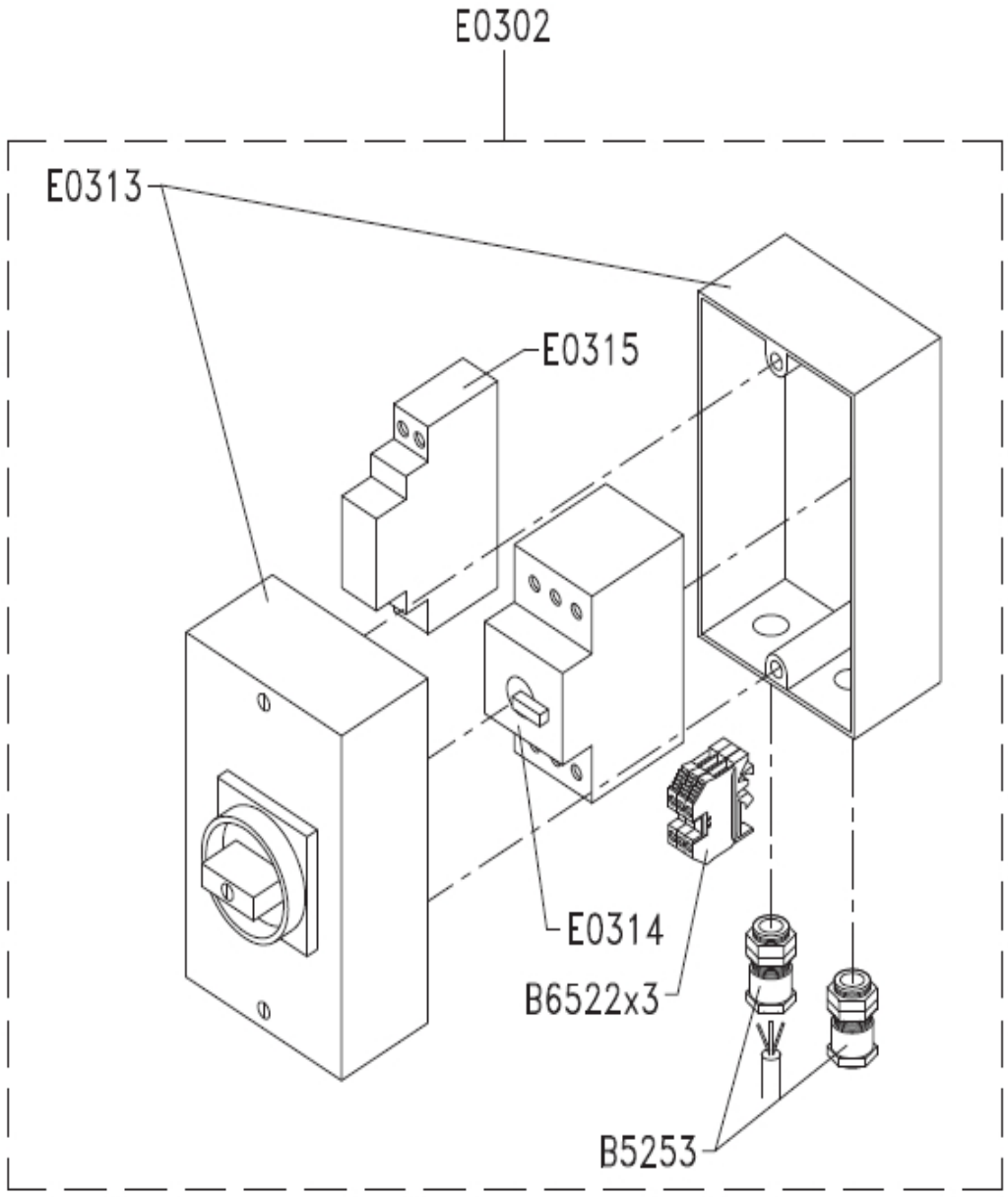
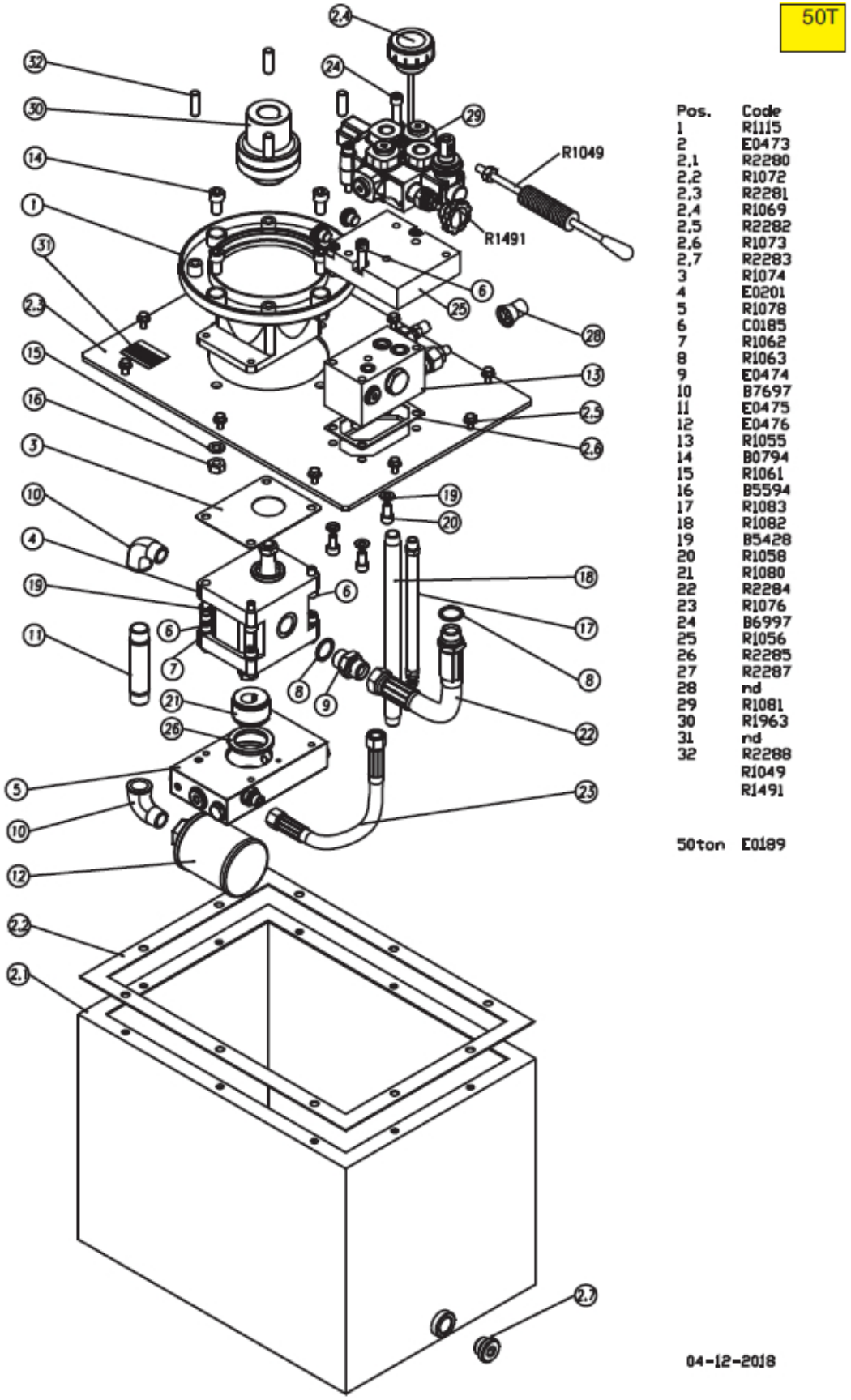


Fig. 13: Spare parts drawing 2 - Electrical box

Spare parts drawing 3: hydraulic power unit

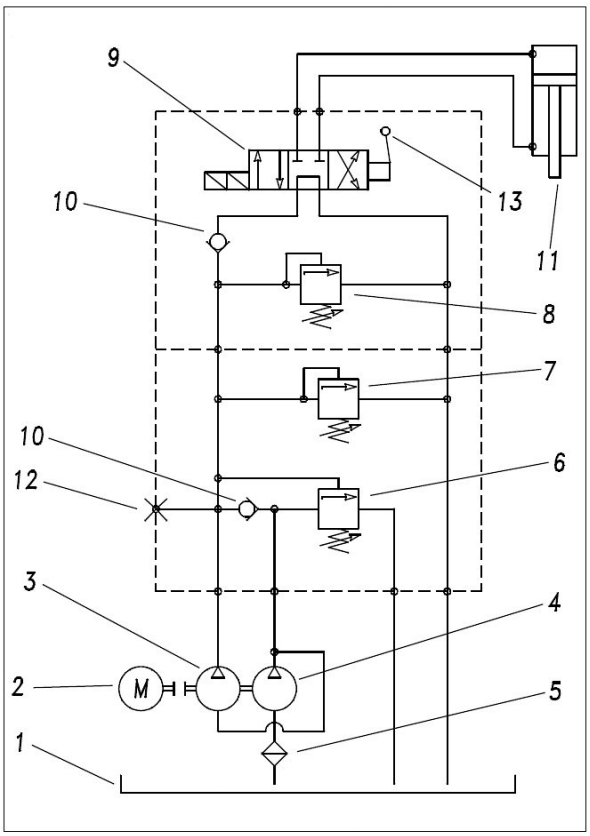


Pos.	Code
1	R1115
2	E0473
2,1	R2280
2,2	R1072
2,3	R2281
2,4	R1069
2,5	R2282
2,6	R1073
2,7	R2283
3	R1074
4	E0201
5	R1078
6	C0185
7	R1062
8	R1063
9	E0474
10	B7697
11	E0475
12	E0476
13	R1055
14	B0794
15	R1061
16	B5594
17	R1083
18	R1082
19	B5428
20	R1058
21	R1080
22	R2284
23	R1076
24	B6997
25	R1056
26	R2285
27	R2287
28	nd
29	R1081
30	R1963
31	nd
32	R2288
	R1049
	R1491
50ton	E0189

Fig. 14: Spare parts - hydraulic power unit

14 Circuit diagram

14.1 Hydraulic schematics



Pos.	Description	Beschreibung
1	Tank	Behälter
2	Motor	Motor
3	Working pump	Arbeitspumpe
4	Pump approach	Kontakt Pumpe
5	Filter	Filter
6	Interstage high pressure safety valve	Zwischenstufe-Überdruckventil
7	Pump high pressure safety valve	Pumpe-Überdruckventil
8	Distributor high pressure safety valve	Verteiler-Überdruckventil
9	Distributor	Verteiler
10	Check valve	Rückschlagventil
11	Cylinder	Zylinder
12	Manometer connection	Manometeranschluss
13	Safety lever-action maintai-ned	Sicherheits-Hebel

Fig. 15: Hydraulic schematics

14.2 Electrical wiring diagram

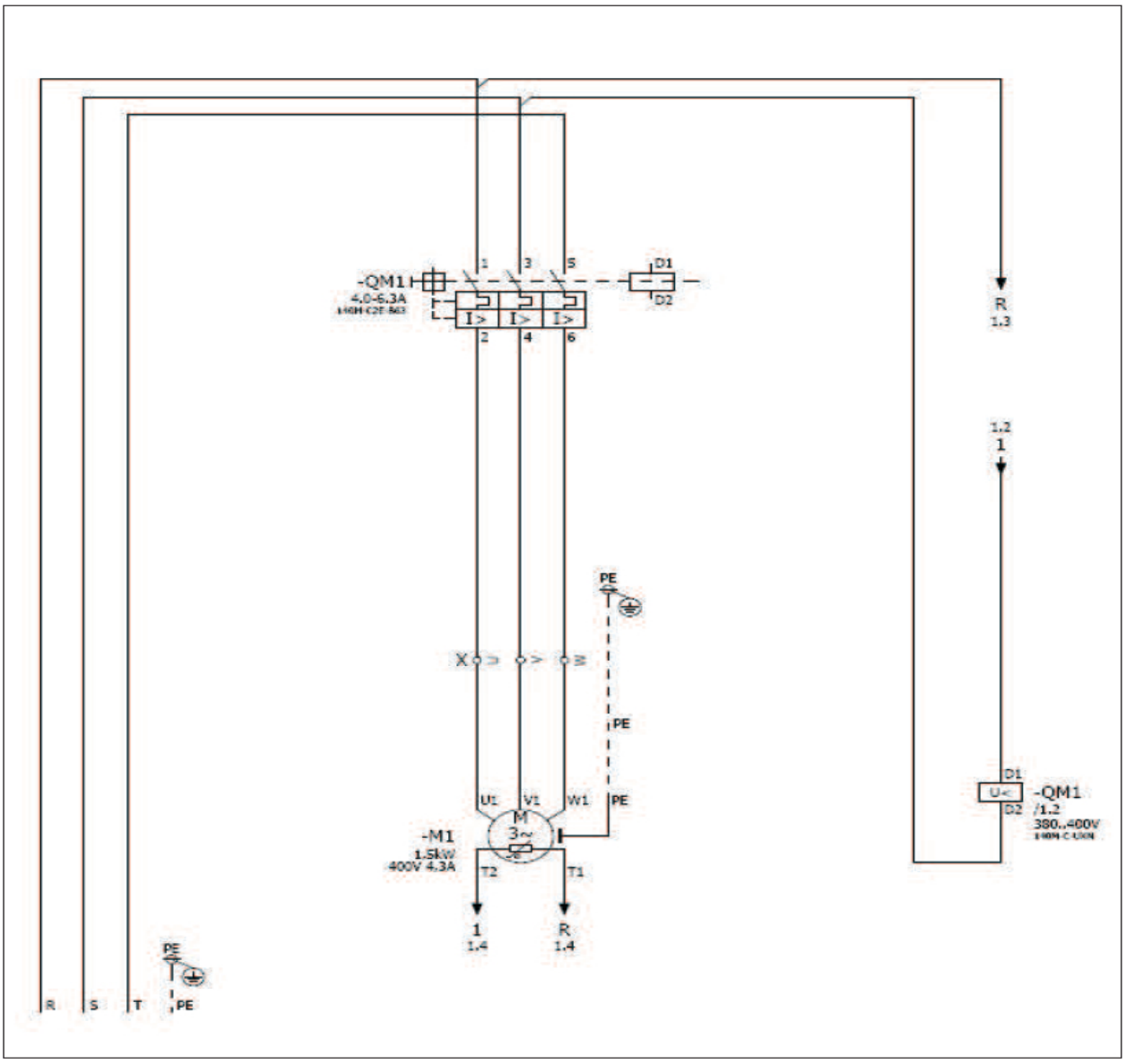


Fig. 16: Electrical wiring diagram

15 EC Declaration of Conformity

According to machine directive 2006/42/EG Annex II 1.A

Manufacturer: Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Straße 26
D-96103 Hallstadt

herewith declares that the following product

Product groupe: Metallkraft® Metalworking machines

Type of machine: Hydraulic Workshop press

Designation of machine: WPP 50 M

Item number: 4003050

Serial number*: _____

Year of construction*: 20____

* please fill in according to the information on the type plate

complies with all relevant provisions of the above-mentioned Directive as well as the other applicable Directives (hereinafter), including any changes in force at the time of declaration.

Relevant EU directives: 2014/30/EU EMC Directive

Responsible for documentation Kilian Stürmer, Stürmer Maschinen GmbH,
Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt

Hallstadt, 14.09.2020

_____
Kilian Stürmer
Manager

CE

16 Maintenance plan

	Maintenance plan							WPP 50 M			
daily	weekly	40 h	200 h	3000 h	demand	half-yearly	yearly				
Cleaning Hydraulic components	Visual inspection of the machine ggf. Reperatur veranlassen	Function control Press system	Functional test Lubricate the machine	Change hydraulic oil	Replacement Hydraulic components	Check Piston seal	Safety test Hydraulic lines	Date	Operating hours	Employee	Signature


stürmer
OPTIMUM