

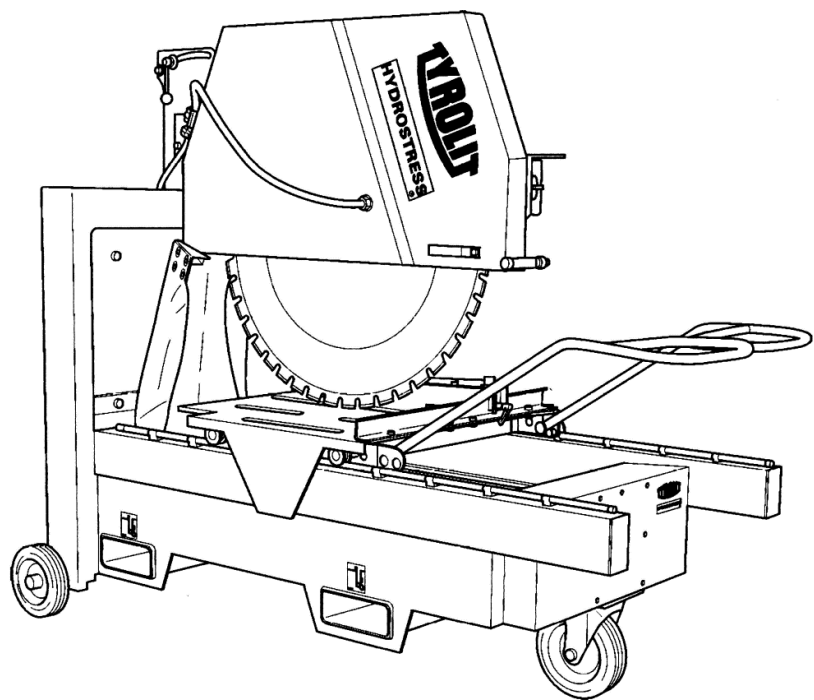
Operating manual

Spare parts list

Stone cutoff saw

TME1000P

Index «000»



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Preface to the operating manual

This operating manual makes it easier to become familiar with the machine and to use it properly.

The operating manual contains important information on how to operate the machine safely, properly and efficiently. Following the operating manual helps avoid danger, avoid repair costs and downtime, and increase the machine's reliability and life.

The operating manual must be supplemented with instructions based on national regulations for accident prevention and environmental protection.

The operating manual must always be readily available at the location where the machine is used.

The operating manual must be read and used by any person assigned tasks with the machine, such as:

- operation, including set-up, repair of malfunctions during operation, disposal of production waste, maintenance, disposal of materials
- maintenance (service, inspection, or repair) and/or Transport

In addition to the operating manual and the regulations for accident prevention in force in the country and at the location where the machine is used, recognised technical rules for safe and correct operation must be followed.

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1. Basic safety instructions

1.1 Warnings and symbols in this manual

Danger! Points out that serious or even fatal injuries may result if not followed.

Caution! Points out that injuries may result if not followed.

Notice! Points out that damage to the machine or other equipment may result if not followed.

1.2 Principle of intended use

Danger! 1.2.1 The stone cutoff saw is designed exclusively for wet sawing of building blocks made of mineral materials. Sawing of wood or metal is prohibited!

The manufacturer/supplier is not liable for damages resulting from improper use.

Compliance with the operating manual and observation of inspection and service requirements are essential components of proper use.

1.2.2 Use the machine only in correct working order and for its intended purpose. The operator must follow the instructions in the operating manual and be fully aware of the safety requirements and hazards posed by the machine. In particular, any faults that may compromise safety must be repaired immediately.

1.3 Organisational measures

1.3.1 Always keep the operating manual readily available at the location where the machine is used!

Danger! 1.3.2 Instruct users to observe supplements to the operating manual as well as all generally applicable legal and other mandatory regulations on accident prevention and environmental protection!

Obligations of this nature may also relate to the use of dangerous substances, for example, or the wearing of personal protective equipment or to road traffic regulations.

Danger! 1.3.3 Personnel assigned to work with the machine must have read the operating instructions and, in particular, the chapter on safety before beginning work. Reading the manual for the first time when working on the machine is too late. This applies especially to persons who work on the machine only occasionally, such as those performing set-up and maintenance.

- 1.3.4 Check at least from time to time whether personnel are performing the work in compliance with the operating manual and paying attention to risks and safety factors!
- Caution! 1.3.5 Use personal protective equipment where necessary or if required by regulations.
- Danger! 1.3.6 Obey all safety and danger notices on the machine!
- Danger! 1.3.7 Ensure that all safety and danger notices on the machine remain clearly legible!
- Danger! 1.3.8 In the event of safety-relevant changes to the machine or its operating performance, stop the machine immediately and report the malfunction to the responsible authorities/person!
- Danger! 1.3.9 Never make any modifications, additions or conversions which might affect safety without the supplier's approval!
- Danger! 1.3.10 Use only manufacturer's original parts!
- Danger! 1.3.11 Observe the stipulated periods or the periods given in the operating manual for inspections! The machine must be inspected annually by an expert.
- 1.3.12 The machine must be thoroughly cleaned before inspection.
- Danger! 1.3.13 The power cord must be unplugged before all inspection or repair work.

1.4 Personnel selection and qualification; fundamental duties

- Danger! 1.4.1 Only persons aged 18 years and over and who have been instructed on how to operate the machine may be entrusted with operating it independently.
- Danger! 1.4.2 People must not remain unnecessarily on the machine or in its area of movement!
- Danger! 1.4.3 During all machine movements, operating personnel must always ensure that they do not endanger themselves or others.
- Danger! 1.4.4 Work on electrical equipment on the machine may only be carried out by an electrician or by instructed persons under the guidance and supervision of an electrician in accordance with electrical regulations.
- Danger! 1.4.5 Personnel who are being trained, instructed or in training as part of a general education programme may only be permitted to work on the machine while under the constant supervision of an experienced person!

1.5 Safety instructions during specific operating phases

1.5.1 Normal operation

1.5.1.1 Avoid all actions and working methods which may compromise safety.

Danger! 1.5.1.2 Take steps to ensure that the machine is operated only in a safe and proper condition!

1.5.1.3 Check the machine for visible external damage and defects at least once per shift. Immediately report any changes (including in operational performance) to the appropriate office/individual! If necessary, stop the machine immediately and make it secure.

Danger! 1.5.1.4 In case of malfunction, stop the machine immediately and make it secure. Immediately repair any malfunctions!

Danger! 1.5.1.5 The stone cutoff saw is designed exclusively for wet sawing of building blocks. Sawing of wood or metal is prohibited!

Danger! 1.5.1.6 The machine must not be connected to a circuit without a ground-fault circuit interrupter (FI) in the electrical line or distribution box.

Danger! 1.5.1.7 Before beginning cutting operations each day, check the following:

- condition of the diamond saw blade (cracked saw blades must be replaced - when in doubt, by an expert)
- functional condition of the safety devices
- adequate cooling water supply - dry sawing is not permitted!

Danger! 1.5.1.8 Do not jam saw blade.

Danger! 1.5.1.9 The electrical plug must not be pulled when the machine is running.

Notice! 1.5.1.10 When there is danger of freezing, remove the water pump from the pan (do not switch on pumps that are already frozen - thaw them out slowly).

1.5.2 Special work in conjunction with use of the machine and maintenance and repairs during operation; disposal

Caution! 1.5.2.1 Observe all the setting, maintenance and inspection activities and timetables, including instructions for replacing parts/secondary devices, as described in the operating manual! Only technically qualified personnel should carry out these activities.

Caution! 1.5.2.2 Brief operating personnel before beginning special operations and maintenance work! Appoint supervisory personnel.

Danger! 1.5.2.3 If the machine is completely shut down during maintenance and repair work, it must be mechanically secured to prevent accidental activation.

Note 1.5.2.4 Before cleaning the machine with water or other cleaning agents, cover/seal all openings that, for reasons of safety and/or functioning, water/steam/cleaning agents must not be allowed to enter. Particularly endangered are electrical motors, switches and plug connections. Cleaning with a steam jet is not permitted.

Note 1.5.2.5 After cleaning, the covers and tapes must be removed completely!

Danger! 1.5.2.6 Always tighten loose screw connections during servicing and maintenance work!

Danger! 1.5.2.7 Any safety devices removed during set-up, maintenance or repair must be reinstalled and checked immediately upon completion of the maintenance and repair work!

1.5.2.8 Dispose of fuel and consumable materials and replacement parts in a safe and environmentally-friendly manner!

1.6 Notice on specific hazard types

1.6.1 Electricity

Danger! 1.6.1.1 Only use original fuses with the specified amperage! If the electrical power supply is interrupted, shut down the machine immediately!

Danger! 1.6.1.2 Perform maintenance or repair work only when the machine is separated from the electric circuit.

Danger! 1.6.1.4 The electrical equipment on the machine should be inspected/checked on a regular basis. Defects, such as loose connections or scorched cables, must be repaired immediately .

1.6.2 Dust

1.6.2.1 Observe applicable national regulations when working in enclosed spaces!

1.7 Transport

- Danger! 1.7.1 Use a four ring suspension gear of sufficient carrying force when dislocating the machine.
- Danger! 1.7.2 Determine an expert to give the appropriate handling instructions for the lifting procedure!
- Danger! 1.7.3 Lift machine according to the instructions as provided in the operation manual (stop points for load carrying devices etc.) by means of the lifting gear in a workmanlike manner!
- Danger! 1.7.4 Use only suitable transport vehicles with sufficient lifting capacities!
- Danger! 1.7.5 Secure the load reliably. Use suitable lifting points!
- Danger! 1.7.6 Disconnect all power sources before moving the machine, even for very short distances! Ensure that the machine is correctly reconnected to the power supply before restarting!
- Danger! 1.7.7 Restart the machine strictly in accordance with the operating manual!

2. Machine description

2.1 Overview of components

- Item 1 Star- delta switch
- Item 2 Button start
- Item 3 Emergency switch off
- Item 4 Saw hood
- Item 5 Hexagonal cut for saw hood fixing
- Item 6 Motor
- Item 7 Lever for sawing height adjustment
- Item 8 Connection plug
- Item 9 Frame
- Item 10 Locking device for saw table
- Item 11 Saw table
- Item 12 Fixingpoints
- Item 13 Water pan
- Item 14 Forklifttaking up
- Item 15 Parking brake
- Item 16 Locking of saw arm

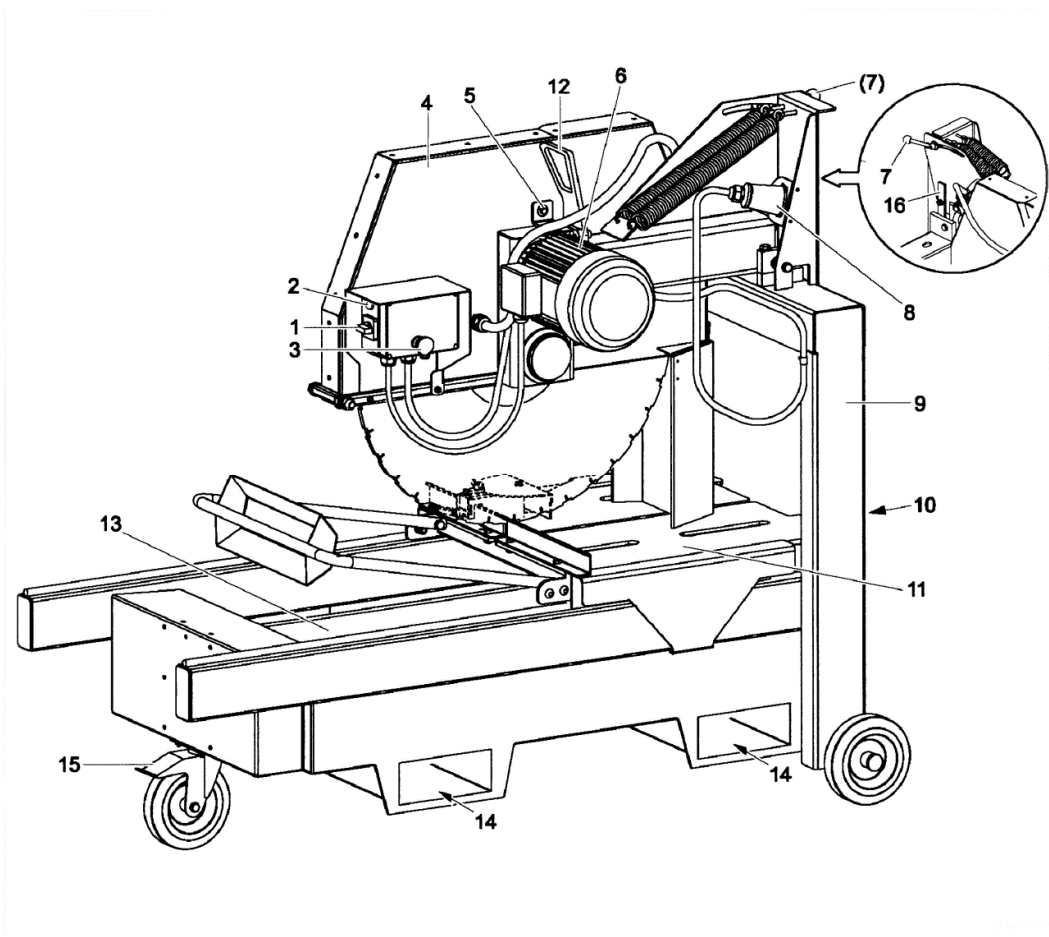
2.2 Protective equipment

- Item 4 - Saw hood

2.3 Technical data

Motor power	7,5 kW/ 400 V
Current consumption	14,9 A
Protecting kind	IP54
Saw blade wave revolutions	970 U/min
Saw blade diameter	900/1000 mm
Saw blade receptacle	60mm
Cutting depth	370/380 mm
Cutting length.	660mm
Table breadth	745mm
Height	1500 mm
Breadth	1030 mm
Weight	342 kg
Length in transport position	1800 mm with hand

Subject to technical changes!



2.4 Noise emission values

The measurements were made in accordance to the standards 3744, EN ISO 11201 and EN 12418. Therefore it was used a standard saw blade, 900 mm, (not a silent blade)

Parameter	Value
continuous sound pressure level at work LoA	91 dB (A)
Sound power level LwA	106 dB (A)
Sound power level at the ear of user	86,8 dB (A)

2.5. Vibration at the grab handle

When cutting the oscillation total value is under 2.5 m/s².

3. Assembly and initial preparation for operation

3.1 Assembly tools

- Combination wrench size 13/46

3.2 Setup

- Danger!
- Put the saw on a clean and horizontal ground
 - Press the parking brake (Item 15)

3.3 Installation of the saw blade (or checking the installation)

- Notice!
- High adjustment must be tighten
 - Water hose coupling is open
 - Remove the hexagon bolt
 - Turn the saw hood forward on the table
 - Remove the flange nut (left-hand thread) and thrust washer.

ATTENTION! When installing the saw blade, observe the following:

- All receptacle surfaces must be clean.
- Rotation direction arrow on the saw blade must match the one on the hood.
- Use only diamond saw blades intended by the manufacturer.

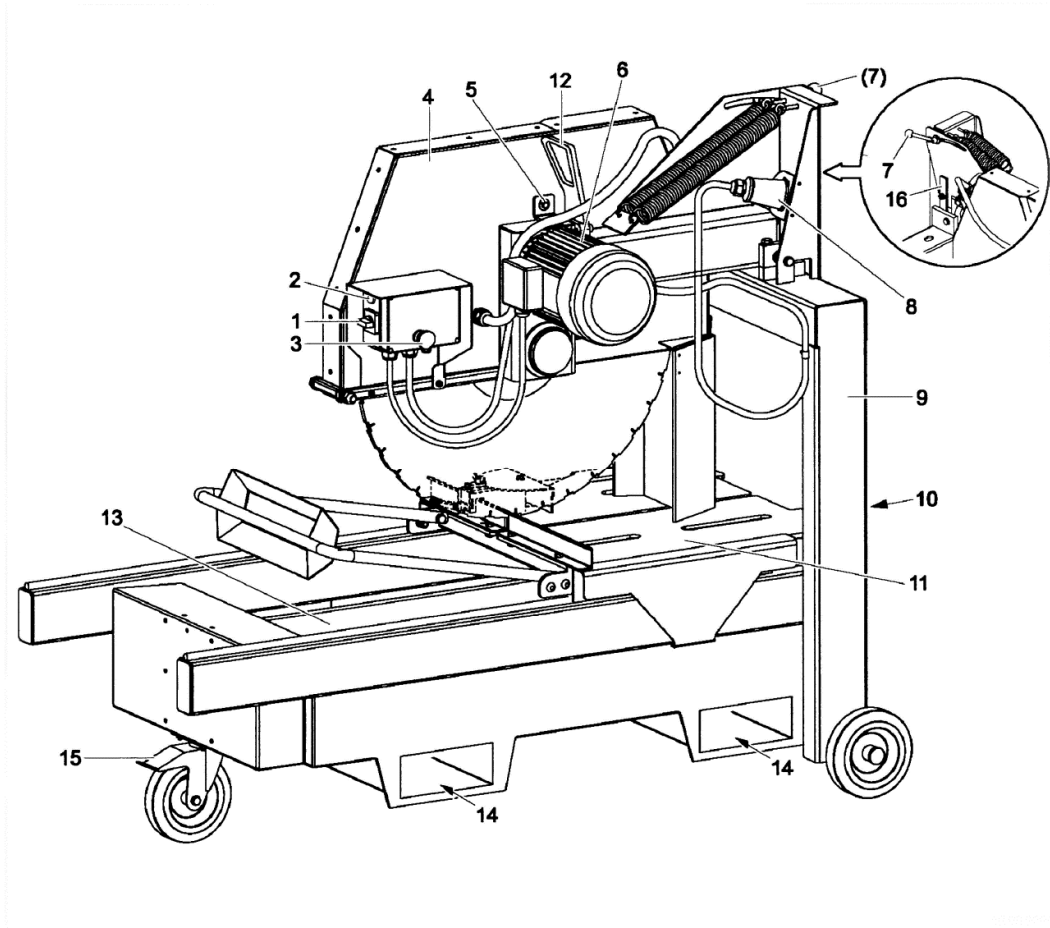
- Install thrust washer and flange nut. (Combination wrench size 13/46)
- Turn back the saw hood
- Fix the saw hoos with the hexagon bolt
- Close the water hose coupling

3.4 Saw preparations

- Fill the pan with water until the pump is submerged.
- Open the water valve.
- Plug the supply line cable (400 VI 32 A) into the socket (item 8).
- Check protective equipment (see 2.2).

3.5 Test direction of rotation of the saw blade

- Turn Star delta switch (item 1) to "star".
 - Press button start (item 2).
 - Turn star delta switch (item 1) to "0".
 - Check the direction of rotation of the saw blade.
- * The direction of rotation is clockwise, seen from the left (direction arrow on the saw hood).



3.6 Change direction of rotation

- Turn star delta switch (item 1) to 0.
- Remove power cord from the socket (item 8).
- Change phase of the power supply plug (item 8) with a screwdriver.
- * Press and turn the black disc inside

3.7 Test run

- Place block on table.
- Push the block to the stop.
- Turn star delta switch (item 1) to "star".
- Press button start (item 2).
- Wait until the motor has a regular revolution (regular sound)
- Turn the star delta switch further to "delta"

ATTENTION! Is the saw blade adequately supplied with cooling water?

Caution!

- Dry cutting is not permitted.
- Inadequate cooling water results in early wear or malfunctioning of the saw blade.
- Start feed movement above the sliding handle on the saw table.
- * Begin cut with low feed speed.
- * Adjust feed speed to the feed force.

4. Transport

4.1 Preparation for transport

- Remove the power cord from the saw.
- Empty the water from the pan.
- Saw blade height adjustment (item 7) is tightened.
- Put the saw table on the back wall and lock the device (item 10)

4.2 Displace with the crane

- Caution! The locking of the saw arm (Pos. 16) must stand vertical. Hang up the stopper means with enough carry power to the limit stops (item 12)
- By displacing – keep the saw in your eyes

4.3 Transport with the truck

- arrest the wheels with the brake
- fix the saws on the limit stop (item 12)

4.4 Transport with the forklift

- Take up the saw with the forklift (item 14)

5. Operation

5.1 Setting up the saw

- Set up the saw on a clean and stable foundation.
- All three wheels must have a grounding contact
- Press the brake (Item 16)

5.2 Saw preparations (see 3.4)

5.3 Test the direction of rotation of the saw blade

5.4 Changing direction of rotation (see 3.6)

5.5 Sawing (see 3.7)

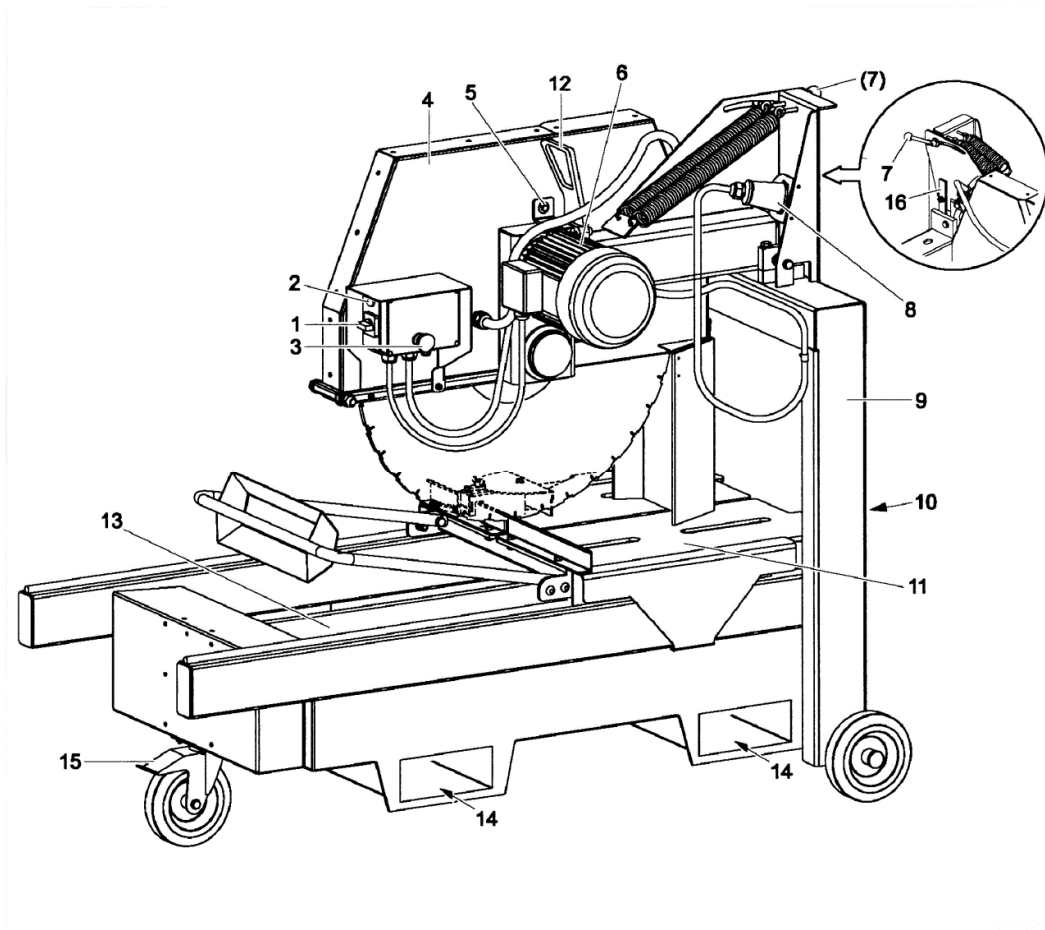
5.6 Saw blade sharpness

If the saw blade loses its sharpness after longer use, you can "sharpen" it by making some cuts in sand-lime bricks or similar material.

5.7 Cooling water

Very dirty water reduces the life of the pump and saw blade.

- With frequent use, replace the water daily and remove the saw sludge.
- Also clean the pump's suction strainer with each water change.



5.8 Height adjustment

The saw blade height adjustment is needed for:

- cutting through blocks with height over 380 mm in the reversing tool.

Performing the height adjustment.

Attention! Position the saw arm locking (Pos. 16) horizontal.

- Motor is turned off.
- Loosen the clamping lever (item 7).
- Set the saw head to the desired height.
- Tighten the clamping lever (item 7).

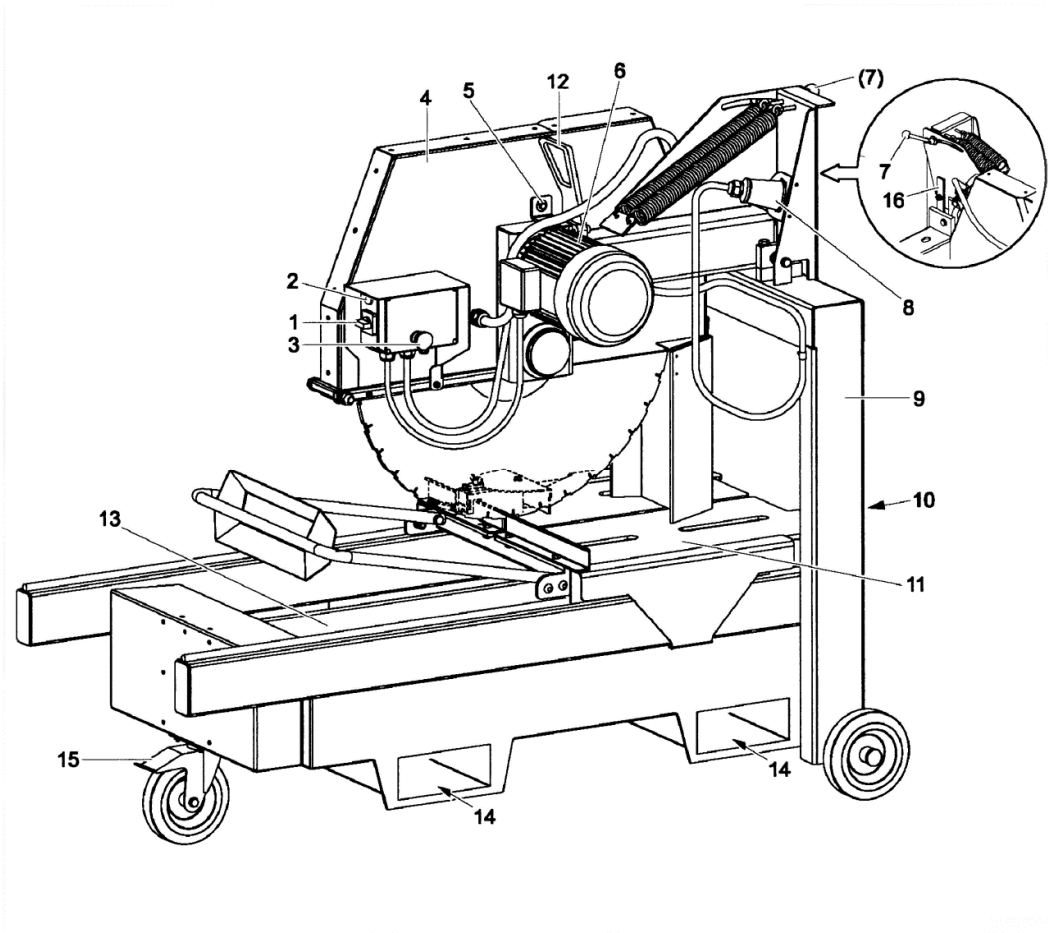
5.9 Changing the saw blade (see 3.3)

6. Disassembly

- Turn star delta switch (item 1) to "0".
- Remove the connecting cable.
- If there is danger of freezing, take the water pump out of the water and run it until empty.

ATTENTION! Frozen pumps have to be thawed out before switching them on.

- Transport (see 4)

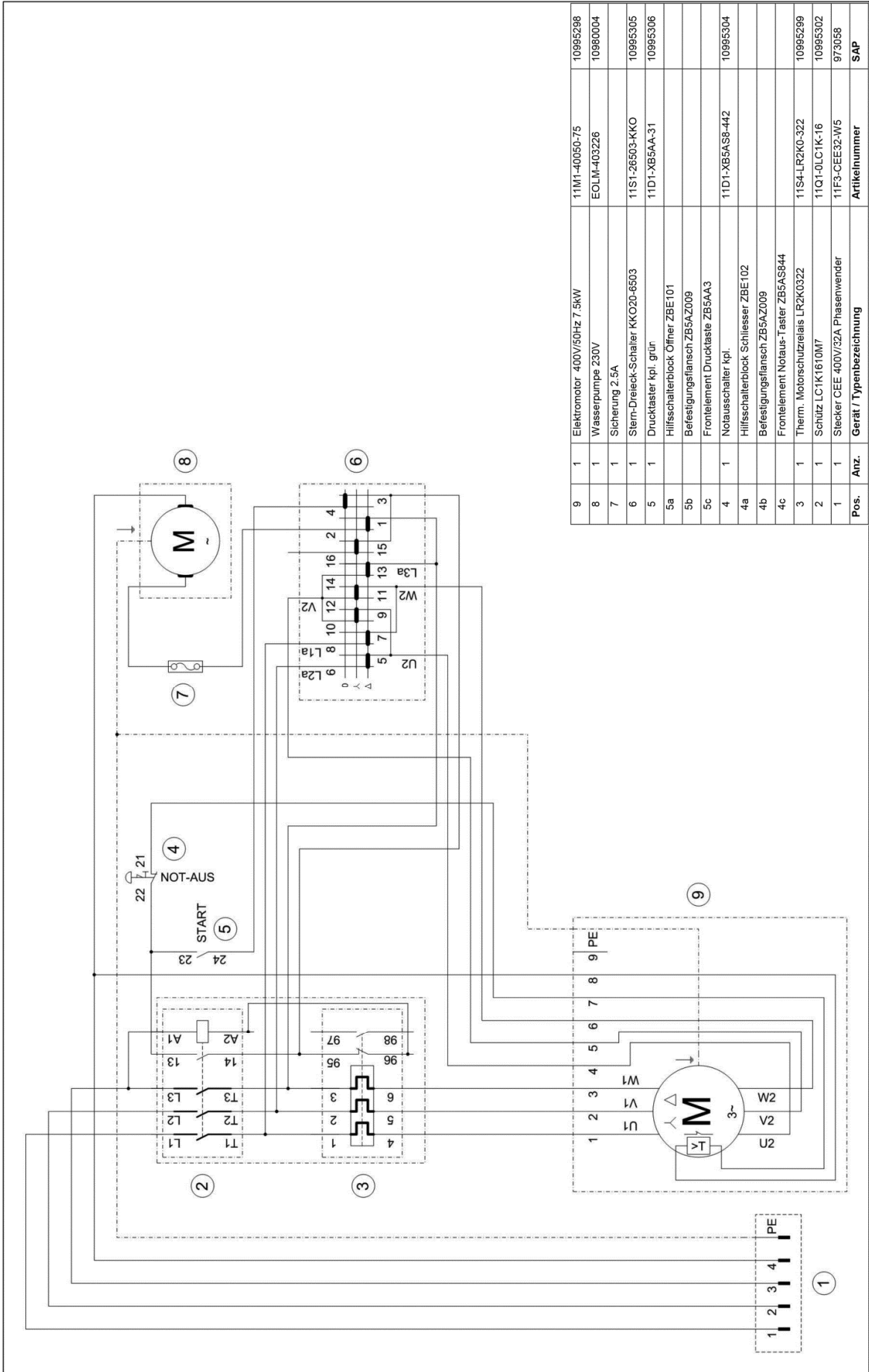


7. Maintenance

- Thoroughly clean the saw once per week (without electricity).

8. Malfunctions

Malfunction	Possible cause	Remedy
Motor does not run	<ul style="list-style-type: none"> - Power cord is defective - Motor is defective - Switch is defective 	<ul style="list-style-type: none"> - New power cord - May only be repaired by an electrician
Incorrect saw blade rotation direction	<ul style="list-style-type: none"> - Motor incorrectly polarised 	<ul style="list-style-type: none"> - Reverse the phase inverter
Motor shuts down during sawing, but can be restarted after a short break.	<ul style="list-style-type: none"> - Feed too fast - Saw blade blunt - Saw blade worn (coating > 2 mm) 	<ul style="list-style-type: none"> - Cut with slower feed - Sharpen saw blade with 10- 15 cuts in sand-lime bricks
No water at saw blade	<ul style="list-style-type: none"> - Pump is not running - Line system clogged 	<ul style="list-style-type: none"> - Change the safety device in the switchbox. Only by an electrician expert. - Clean line system



9	1	Elektromotor 400V/50Hz 7.5kW	11M1-40050-75	10995298
8	1	Wasserpumpe 230V	EOLM-403226	10990004
7	1	Sicherung 2.5A		
6	1	Stern-Dreieck-Schalter KKO20-6503	11S1-26503-KKO	10995305
5	1	Drucktaster kpl. grün	11D1-XB5AA-31	10995306
5a		Hilfsschalterblock Öffner ZBE101		
5b		Befestigungsflansch ZB5AZ009		
5c		Frontelement Drucktaste ZB5AA3		
4	1	Notausschalter kpl.	11D1-XB5AS8-442	10995304
4a		Hilfsschalterblock Schliesser ZBE102		
4b		Befestigungsflansch ZB5AZ009		
4c		Frontelement Notaus-Taster ZB5AS844		
3	1	Therm. Motorschutzrelais LR2K0322	11S4-LR2K0-322	10995299
2	1	Schütz LC1K1610M7	11Q1-0LC1K-16	10995302
1	1	Stecker CEE 400V/32A Phasenwender	11F3-CEE32-W5	973058
Pos.	Anz.	Gerät / Typenbezeichnung	Artikelnummer	SAP

	TYROLIT Hydrcstress AG Witzbergstrasse 18 CH-8330 Pfäffikon ZH
	Steintrennsäge TME1000P 400V / Index 000
Datum / Bearbeiter	20.11.2014 / SP

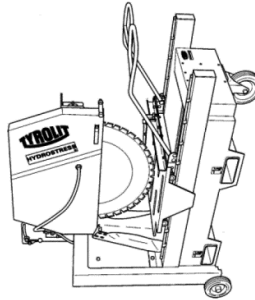
Elektroschema



Konformitätserklärung
 Declaration of conformity
 Dichiarazione di conformità
 Declaración de conformidad

Typenschild hier aufkleben

Steintrennsäge **TME1000** ★ ★ ★
 Stone cut off saw
 Scie de table
 Sega circolare con lama diamantata



Wir bestätigen in alleiniger Verantwortung, dass diese Maschine den folgenden Richtlinien und Normen entspricht

We declare under our sole responsibility that this product complies with the following directives and standards

Nous déclarons, sous notre seule responsabilité, que ce produit répond aux directives et normes suivantes

Dichiariamo sotto la nostra completa responsabilità che il presente prodotto è conforme alle seguenti direttive e norme

Declaramos bajo propia responsabilidad que este producto cumple con las siguientes directivas y normas

Angewandte Richtlinie(n)

Directive(s) applied
 Directive(s) appliquée(s)
 Direttive applicata/e
 Directiva(s) aplicada(s)

2006/42/EG 17.05.2006
 2004/109/EG 15.12.2004
 2012/19/EU 04.07.2012

Angewandte Normen

Applied standards
 Normes appliquées
 Norme applicate
 Normas aplicadas

EN ISO 12100:2010
 EN 12418/A1:2009
 EN 60204-1/A1:2009

TYROLIT Hydrestress AG

Witzbergstrasse 18
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 Switzerland

Pfäffikon, 15.12.2014

Pascal Schmid
 Leiter Entwicklung

