



Operating Instruction

TWIN Hobby



Type

Serial number

Date

EC Declaration of Conformity

according to EC directive 2006/42/EC on machinery
(Annex II A)

Name and address of the manufacturer

BlitzRotary GmbH

Hüfing Str.55
78199 Bräunlingen, Germany

Hier Typenschild einkleben

Typ

Baujahr

Seriennummer

This declaration relates exclusively to the machinery in the state in which it was placed on the market, and excludes components which are added and/or operations carried out subsequently by the final user. The declaration is no more valid, if the product is modified without agreement.

Herewith we declare, that the machinery described below

product denomination

Piston Compressor

model / type

VARIS
VERSA

VDZ; VDZH; VDZS; VDZHS; VDZD; VDZHD; VGZ; VGZH; VZ; VZH
DZ; DZH; DZS; DZHS; GZ; GZH; DZHP; GZHP; HV; NV;
DZNT; DZNDT; GZNT; GKTE; GKTZ; GKTZH

TWIN

Airmobil; Airstation; Hobby; Maximat; Maximat Pro; Kitty II; Whisper; Medicus; VX
DKD; DET; DEDT; GET; BKE; BKZ; BKES; BKZS; GKE; GKZ

FORMULA
TOURING

28M; 36M; 57M; 38H; 52H; 65H; 38V; 52V; 65V
GT30H; GT42H; GT50H; GT32V; GT42V; GT50V;

machinery- / serial number

Year of manufacture

is complying with all essential requirements of the Machinery Directive 2006/42/EC.

In addition the partly completed machinery is in conformity with the EC Directives 2014/30/EU relating to electromagnetic compatibility and 2014/35/EU relating to electrical equipment (Protection objectives have been met in accordance with Annex I No. 1.5.1 of the Machinery Directive 2006/42/EC)

In addition the partly completed machinery is in conformity with the EC Directives 2014/29/EU relating to simple pressure vessels directive.

Harmonised Standards used

EN 1012-1:2011-02 Compressors and vacuum pumps - Safety requirements

EN 60204-1:2014-110 EN Safety of machinery - Electrical equipment of machines

ISO 12100:2011-03 Safety of machinery - Basic concepts

Other technical standards and specifications used:

The person authorised to compile the relevant technical documentation:

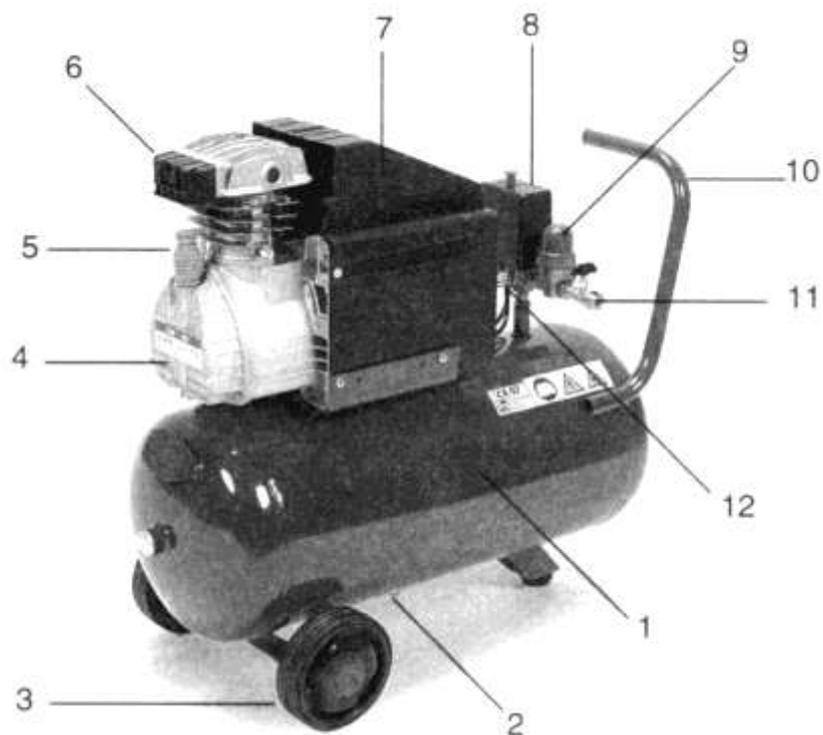
BlitzRotary GmbH; Hüfing Str. 55, 78199 Bräunlingen

Place : Bräunlingen

Date : 01.05.2019



Doris Wochner-McVey
Geschäftsführer / Managing Director



- | | | | |
|----|------------------|-----|-----------------------|
| 1: | Tank | 7: | Guard |
| 2: | Condensate Drain | 8: | Pressure switch |
| 3: | Wheel | 9: | Pressure reducer |
| 4: | Compressor unit | 10: | Handle |
| 5: | Oil level stick | 11: | Compressed air outlet |
| 6: | Air filter | 12: | Safety valve |

Technical Data: see name plate of compressor

Attention: We advise you to use the compressor at 10% maximum duty per hour at full load as this ensures efficient operation of the product long-term.

INTRODUCTION

Blitz piston compressors are the result of many years of experience. Their high quality level and superior design are your guarantee for their reliability, long service life, and economical operation. In order to avoid any unnecessary damage or danger, please read these instructions carefully and always follow them at all times.

PROPER USE

This compressor has been designed and built in accordance with the latest state of the technical art and the acknowledged safety regulations.

However, its use could cause potential danger to the life and limb of the user or a third party, and possibly damage to itself and other machinery, if:

- it is used for anything other than its proper purpose
- it has been tampered with or converted improperly
- the safety instructions are not observed.

This machine is intended exclusively for generating compressed air for driving machinery. Its use for any other purpose counts as improper use, and the manufacturer cannot be held responsible for any resultant damage; this risk must be borne by the user alone. Proper use also includes adherence to the operating instructions and to the service and maintenance instructions.

We reserve the right to make modifications without prior announcement as part of our programme of continuous technical improvement.

GUARANTEE

The guarantee period is six months.

You have no guarantee claim in the event of:

- operating mistakes
- inadequate maintenance
- incorrect consumable material
- installation of the wrong replacement parts (please only ever use original Blitz parts)
- improper technical alterations to the machine
- failure to adhere to the operating instructions.

INSTRUCTION SYMBOLS

DANGER SIGNS



Vital information and instructions for avoiding injury or major damage.

INSTRUCTIONS

CAUTION!

Special information and instructions for avoiding damage.

NOTE



This symbol gives instructions and suggestions on the proper operation of the compressor.

SAFETY INSTRUCTIONS

The following safety instructions and precautions should be observed in particular, and in addition to the safety regulations generally applicable to air compressors:

- Keep the operating instructions somewhere near the compressor. They have to be readily available at all times.
- Make sure the machine is in a safe operating condition at all times, and replace defective parts immediately if they could have any effect on its operating safety.
- Never reach inside the suction or air outlet openings when the machine is running. Rotating wheels, drive belts, or hot surfaces could cause very serious injury.
- Only ever use original Blitz replacement parts.
- Technical modifications or alterations to the machine are totally prohibited.
- The limit figures for pressures and temperatures must be labelled in a permanent manner and never exceeded.
- The machine is only allowed to be operated when all the protective and safety devices are in place and working perfectly.
- The warning and safety instructions for the machine must be observed, and must always be kept in a readily legible condition.

- Work on electrical machinery or drives must not be carried out except by a qualified electrician, or persons with the necessary training under the supervision of a qualified electrician, and in compliance with the regulations applicable to electrical equipment.
- Please note that for units with combustion engine special safety preventions have to be observed.
- Always switch the machine off when it is not in use.
- If you are working at any height above your normal working height, use suitable ladders and platforms that meet the relevant safety instructions. Do not use any part of the machine as support for climbing.
- Operating and maintenance personnel must wear suitable working clothes. Rings and other jewellery must be removed before work starts on the machine. Long hair must be tied up under a hair-net or similar.
- Goggles or similar eye protection must be worn for work with compressed air, as loose parts and particles of dirt can be blown into the face.
- When operating the machine, wear personal ear protection of the right kind for the noise level involved.
- Never aim compressed air at any person - you could cause injury!
- Compressed air from a compressor must never be used for inhalation without first being properly treated. The laws and industrial standards in force in your location apply.
- Keep children and animals well away from this machine.

TRANSPORTATION

Warning! - keep away from suspended loads

A suspended load could crash to the ground, and could cause very serious injury. It is strictly forbidden to move or stand in the danger area underneath a suspended load.

CAUTION! Improper lifting

Lifting the compressor in the wrong way can damage it, so only ever lift this compressor at the points provided. Never lift it by its cladding or by the compressor block.

WHEN LIFTING AND TRANSPORTING THE COMPRESSOR:

- Let the air off from the machine
- Undo the connections
- Secure loose or moving parts
- Adhere to local safety regulations
- Only ever use suitable lifting gear with sufficient lifting capacity.

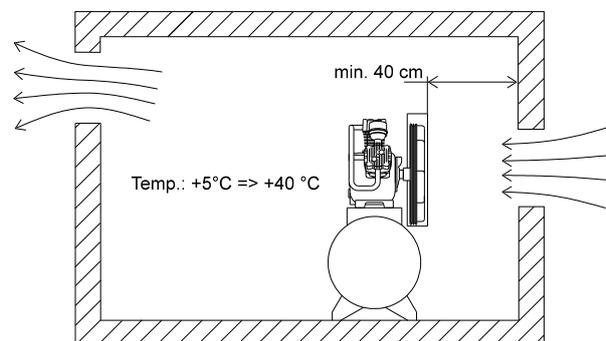
SETTING UP AND CONNECTING SETTING UP

Set the compressor up in a cool, dry place.

To dampen noise and vibration, we recommend the use of damping rubber elements or oscillating metal parts.

PLEASE PAY PARTICULAR ATTENTION TO THE FOLLOWING:

- The air receiver should be easily accessible from all sides.
- The distance between the ventilation wheel on the machine and the nearest wall must never be less than 400 mm.
- The surface on which the compressor stands must be level and capable of bearing the weight.
- The ambient temperature must lie between +5°C and +40°C.
- The room in which the compressor stands must be adequately ventilated.
- The suction air must be clean. Caustic, combustible or poisonous gases must not be suctioned.
- The filter insert of the air suction filter has a separation degree of 10 µm. All particles of more than 10µm are filtered out of the suction air. Smaller particles can pass through the filter. If the compressor is operated in a place where fine dusts exist (cement plant, gravel plant or building sites etc.)



CONNECTION TO THE COMPRESSED AIR MAINS

Warning! - Pressure in the mains

The compressed air mains might be under pressure, and working on mains that are under pressure can result in injury. Therefore, first shut the mains off from all sources of pressure and let the air out.

Compressed air connection with flexible hosepipes

Use a suitable flexible hosepipe for connection to the compressor. This will prevent tension from causing cracks, and also noise from being transmitted.

Connecting pipes and couplings of the right size and grade for the relevant operating pressures and temperatures must always be used, and components that are in a faultless condition.

CONNECTION TO THE ELECTRIC MAINS

Warning! - drive belt guard

Wheels, drive belts, and fan blades can cause very severe injuries when they are in motion. The compressor must never be given a trial run or started up unless the drive belt guard is in place and the housing closed.

Exception: Machines with a sound-insulation hood can be run with side cover open to check the direction of rotation, but this must be done very carefully.

INSTRUCTIONS FOR MACHINES WITH SOUND-INSULATION HOOD

Machines which are fitted with a sound-insulation hood are also fitted with ventilation fan to prevent a build-up of heat. After the machine has been switched off, this fan continues to run for a short time until the machine has cooled down.

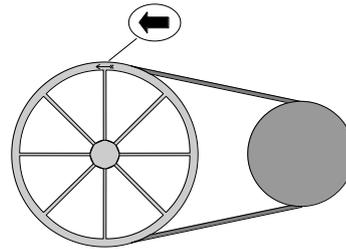
INSTRUCTIONS FOR ELECTRICAL CONNECTION

- The electrical connection and safety precautions must comply with VDE regulations and/or other regulations in force in the country of operation, including those issued by the local power supply utility.
- Always check the direction of rotation before starting the compressor up.

- Units connected without a plug connection should be fitted with a lockable main switch as well as a suitable main fuse.
- Please refer to the technical data for the necessary cross-sectional size of the wiring and the rating of the fuse.

CHECKING THE DIRECTION OF ROTATION

- ⇒ Switch the machine on or plug it in.
- ⇒ Turn the master switch on and immediately off again.
- ⇒ If the ventilator wheel turns in the direction of the arrow, this is correct; if not, reverse the poles on the motor.



STARTING UP AND OPERATING STARTER SWITCH

Warning! - hot surfaces

The compressor block and the air leads coming from it can become very hot during operation. Avoid the risk of burns, and do not touch the hot parts of the compressor.

Warning! - drive belt guard

Wheels, drive belts, and fan blades can cause very severe injuries when they are in motion. The compressor must never be started up unless the drive belt guard is in place and the housing closed.

SWITCHING THE MACHINE ON

- ⇒ Check the starter switch - it must be set at the "0" position.
- ⇒ Check the oil level.
- ⇒ Switch the master switch on or plug in.
- ⇒ Set the starter switch to the "1" position, and the machine is now ready to operated.

- The compressor starts automatically when compressed air is drawn off and the pressure in the storage tanks falls below a pre-set level. It is therefore possible that the compressor does not start up as soon as it is switched on, and that it only switches off after a certain time delay (see pressure switch).
- The compressor stops automatically as soon as full pressure is attained.

SWITCHING THE MACHINE OFF

CAUTION! Mistakes when switching off

Avoid causing damage to the electric motor, and only ever switch the machine off at the starter switch. Do not use the lockable master switch for this purpose, and never pull the main plug out when the machine is switched off.

- ⇒ Set the starter switch to the “0” position.
- The motor and the compressor will now switch off.
- The compressed air line between the compressor and the storage tank will let the air off automatically, so as to ensure that the compressor can start up again with no load against it.
- Pressure in the storage tank will be maintained.
- ⇒ Turn the lockable master switch off or plug off.

PROTECTING THE MOTOR FROM EXCESSIVE TEMPERATURE

⚠ Warning! unexpected start

Units with automatic pressure switch can start by themselves once the unit has cooled down. This means people are at risk. For this reason once the motor protection has been triggered off the unit should be turned off at the operating switch.

If an excessive load on the machine or too high an ambient temperature causes an excessively high temperature in the electric motor, the motor cut-out on the compressor will automatically shut the machine down.

THE FOLLOWING STEPS MUST BE TAKEN WHEN THE CUT-OUT HAS BEEN TRIGGERED OFF:

- ⇒ Switch the machine off at the starter switch.
- ⇒ Discover and rectify the cause of the malfunction.
- ⇒ Wait another 15 to 20 minutes for the motor to cool down.
- ⇒ Reverse the motor protection switch on units with manual motor protection.
- ⇒ Restart the machine.

MAINTENANCE

⚠ Warning! - electrical tension

Even if the machine is switched off, there will still be current in some of the circuits, and electric shocks can cause injury if work is being done on them. The master switch must be switched off or the plug pulled out of the mains socket before any maintenance work is done.

⚠ Warning! - air pressure in the machine

Even if the machine is switched off, the air in the pipes can still be under pressure, and the unexpected escape of compressed air can cause injury if work is being done on them. Pressure must always be let off from the machine before any maintenance work is done.

LETTING AIR OFF FROM THE MACHINE

- The compressor block releases its air pressure automatically if the plant is switched off in the proper way (see “Starting up and operating”).
- To deaerate the air receiver open the condensate drain and let the total pressure off.

TO DRAIN THE AIR RECEIVER OF CONDENSATE

On units with air receiver open the condensate drain „under pressure“ until pure compressed air issues. Then close the drain again. Condensate contains oil and must therefore be disposed of in an environmentally responsible way.

CHECK THE OIL LEVEL

CAUTION! Condensation can ruin the machine completely

If the machine is set up in a cool, damp place, such as in a cellar, condensation can form in the lubricating oil. This is particularly likely to happen if the compressor is run for too short a time and thus does not reach its full operating temperature. This condensation then reduces the lubricating effect on pistons and bearings, and that could destroy them completely. The signs of condensation in the lubricating oil are an excessively high oil level, a milky colour in the oil, or drops of water in the inspection window. If any of these occur, the oil must be changed at once.

Remedy: install the compressor in a warm, dry room, or use a smaller compressor.

- Check the oil level weekly, and top up with an appropriate oil if necessary.
- Never mix oil of different types or quality grades together.

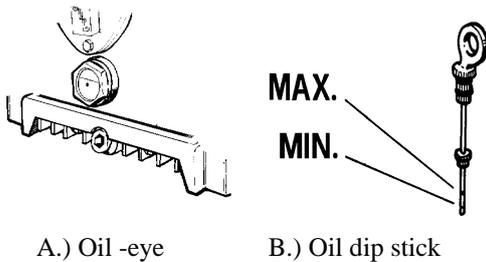
OIL-LEVEL CONTROL ON UNITS WITH OIL DIP STICK

⇒ Extract oil dip stick

- The oil level must be between the notches on the oil dip stick

OIL-LEVEL CONTROL ON UNITS WITH OIL-EYE

⇒ The oil level shown in the oil-eye must be within the circle.



SUITABLE TYPES OF OIL

	Mineral oils			Synthetic oils
	Single-grade oil		Multi-grade oil	
	Actro EP VDL 150	Actro EP VDL 100	Regis SAE 20W-20	Xenic EP VDL 100
	BP Energol RC 150	BP Energol RC 100	BP Energol HD-S SAE 20 W 20	BP Energol RC-S100
	Shell Corena Öl H150D	Shell Corena Öl H100D	Shell Rotella X 20 W 20	V-Öl 7010
	Compressor oil 3022 N	Compressor oil 3021 N	Essolube HDX Plus + 30	
	Mobil Rarus 429	Mobil Rarus 427	Mobil Rarus 829	Mobil Rarus 827
Liqui Moly				LM 500

OIL CHANGE

Warning! - hot oil

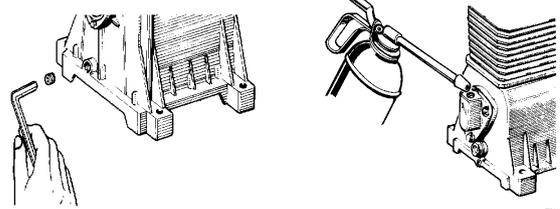
Compressor oil can be very hot, and there is a danger of being scalded. Take all necessary care with this work.

OIL-CHANGE INTERVALS

- Mineral oil: every 500 operating hours
- Synthetic oil: every 1,000 operating hours
- Carry out an oil change at least once a year.

PROCEDURE

- ⇒ Oil quantity: see technical data.
- ⇒ Let off the used oil at normal operating temperature.
- ⇒ Close the oil outlet screw.
- ⇒ Fill the fresh oil in at the spout.
- ⇒ Dispose of the used oil in an environmentally responsible manner.



Oil drain plug

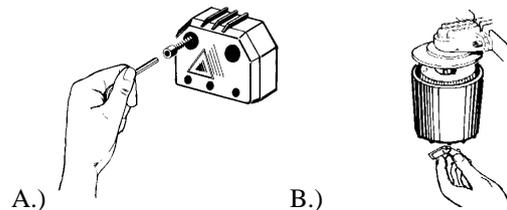
Oil filler cap

AIR SUCTION FILTER

CONTROL INTERVALS

State of soiled suction air	heavy	moderate	light
Control	daily	weekly	every 500 hours

Depending on the type, your unit is fitted accordingly with one or other of the following air filters:



CHECKING THE DRIVE BELT

After every 500 operating hours, check the condition and tension of the drive belt. If there are any cracks in it, or if it looks brittle, replace it. Tighten up the tension on it if it is too slack.

PRESSURE SWITCH

Operating instructions for the pressure switch are enclosed with it. Note the maximum values when adjusting the pressure switch.

CYLINDER HEAD SEAL

After the first 100 operating hours, the bolts on the cylinder head seal must be tightened.

TORQUE WRENCH SETTINGS

Bolt	Maximum torque
M 8	25 Nm
M 10	50 Nm
M 12	85 Nm

RECTIFYING MALFUNCTIONS

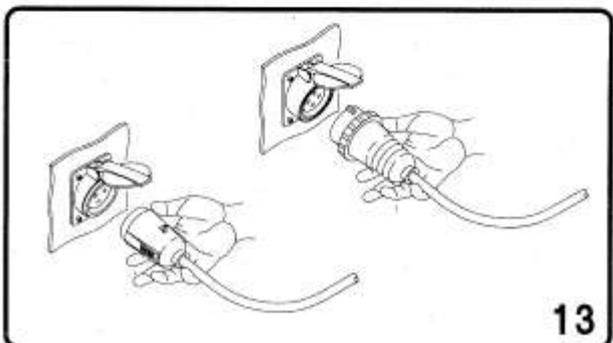
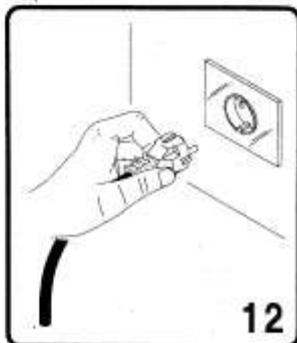
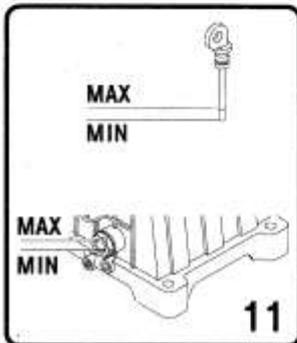
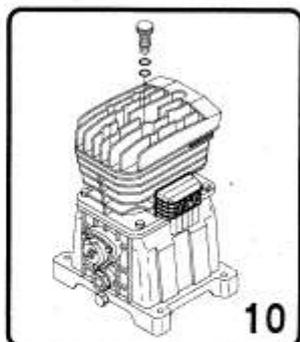
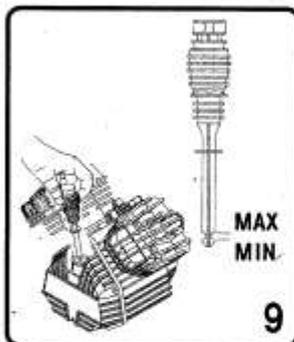
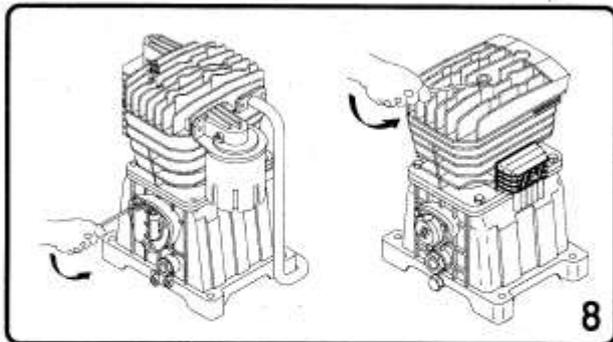
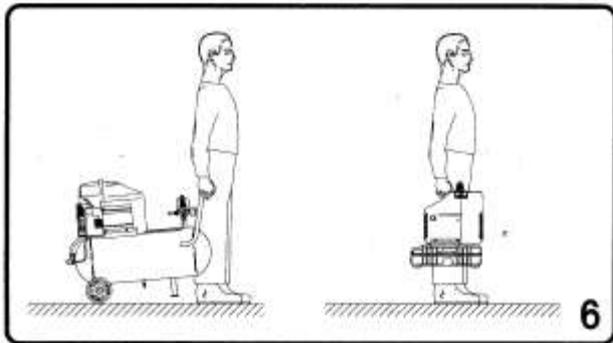
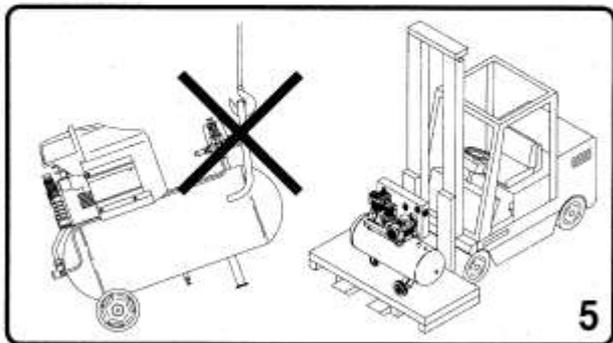
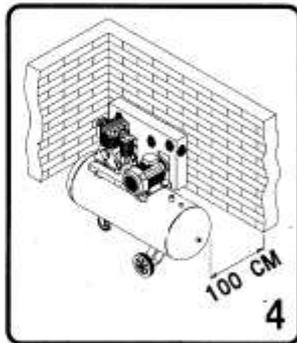
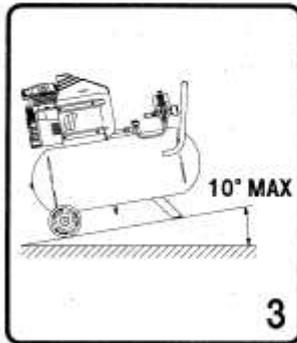
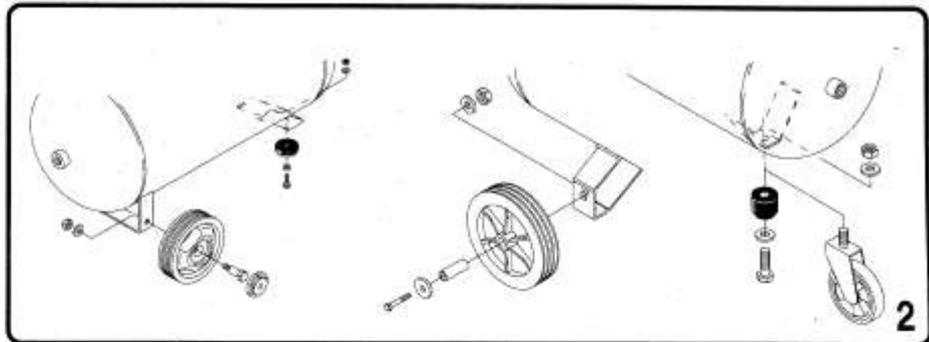
Malfunction	Cause	Remedy
<ul style="list-style-type: none"> Oil level rises Drops of water in oil Oil has milky colour 	Water has collected in the crank housing. Operating temperature is not being reached because the switch-on times are too short.	Change oil at once Use a smaller compressor if necessary
	Water has collected in the crank housing because the machine is installed in a damp place.	Change oil at once Select a dry place for installation
<ul style="list-style-type: none"> Motor cut-out has been triggered 	Ambient temperature is too high	Ventilate the room or choose a cooler place for installation
	Supply voltage is wrong	Ask a qualified electrician to check supply voltage and cross-sections of the supply wiring.
	Valves are defective	Replace the valves Recommendation: call in BLITZ Service-Department
<ul style="list-style-type: none"> Low air delivery 	Suction filter clogged	Clean / replace suction filter
<ul style="list-style-type: none"> Excessive oil consumption 	Wrong oil is being used	Check the type of oil
	Wear between the piston-rings and the cylinder walls	Replace the piston rings Recommendation: call in BLITZ Service-Department
<ul style="list-style-type: none"> Air is escaping through the safety valve on the storage tank 	Pressure switch is set too high	Check the pressure switch settings
<ul style="list-style-type: none"> Air is escaping from the depressurisation pipe on the pressure switch or the solenoid valve 	Non return valve is defective	Check the non return valve Recommendation: call in BLITZ Service-Department
<ul style="list-style-type: none"> Air is escaping from the depressurisation pipe of the pressure switch or the solenoid valve whilst compressor is running. 	Air relief valve or pressure switch dirty or defect	Check air relief valve Recommendation Call in BLITZ Service Department
<ul style="list-style-type: none"> Automatic condensate drain (option) lets out water constantly 	Automatic condensate drain is polluted	Clean condensate drain (this can not be claimed under warranty)

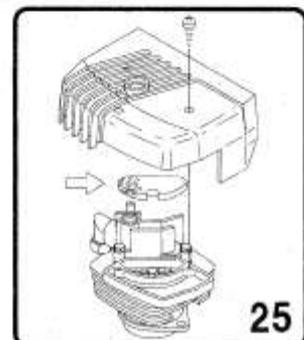
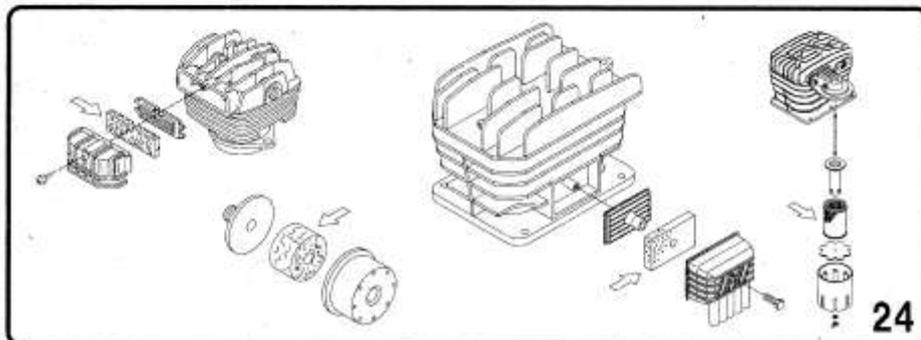
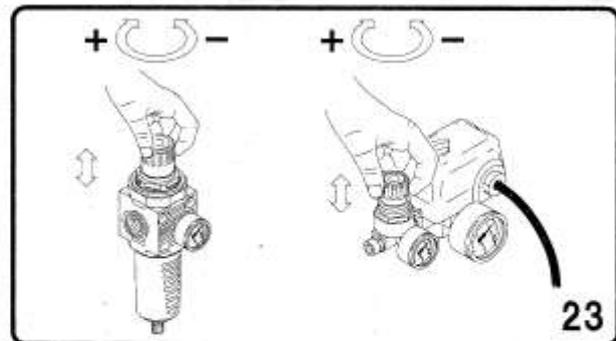
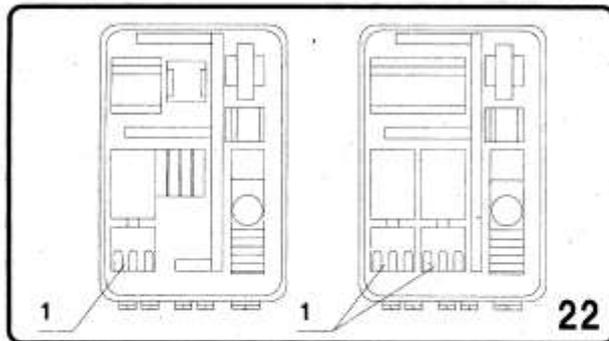
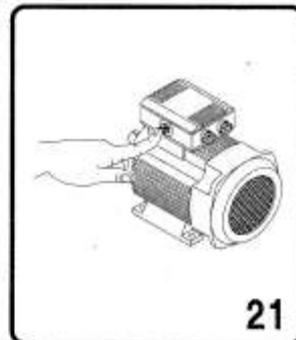
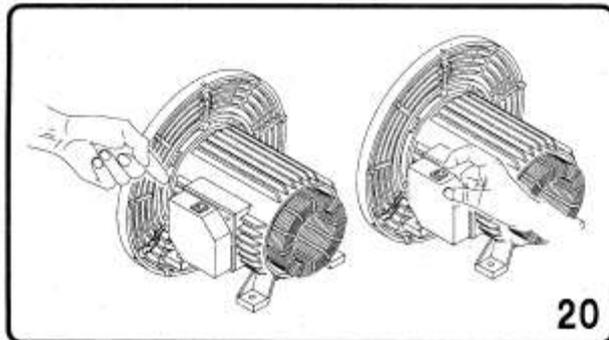
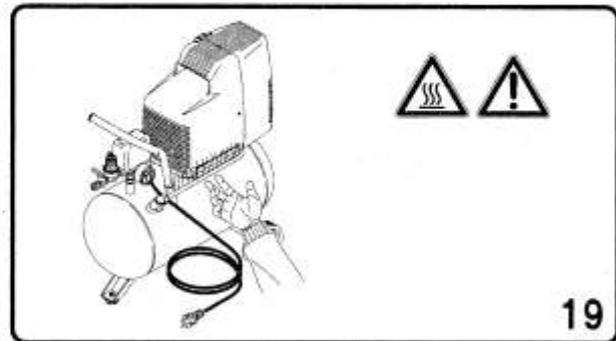
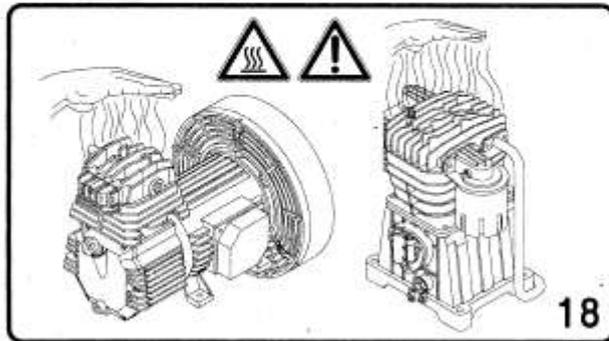
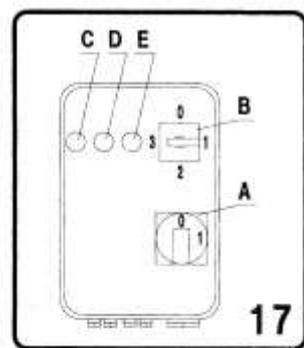
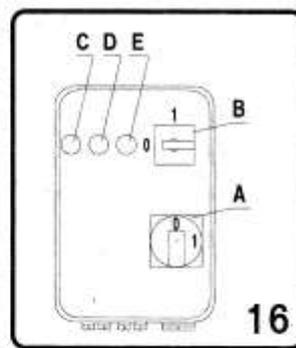
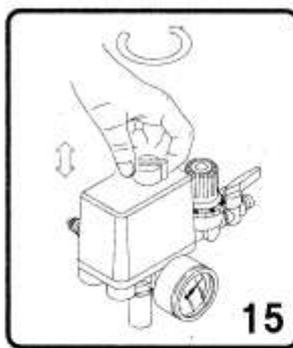
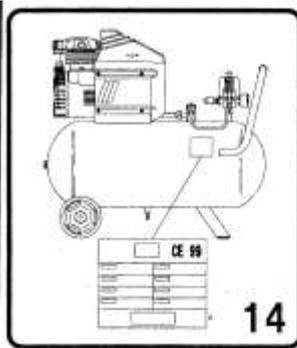
MAINTENANCE – OVERALL VIEW

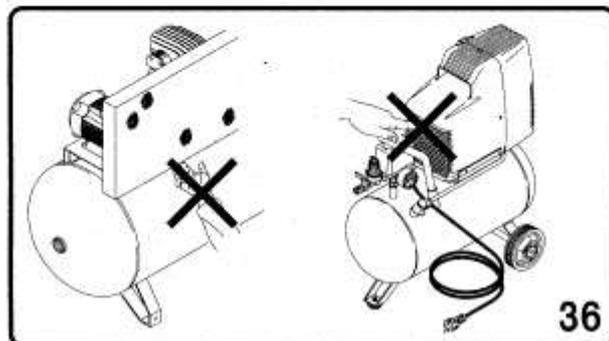
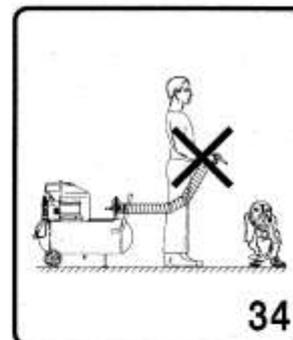
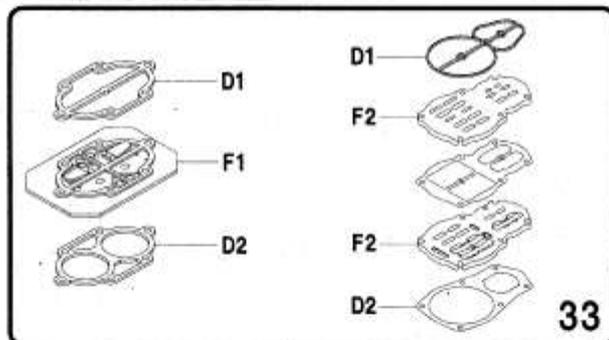
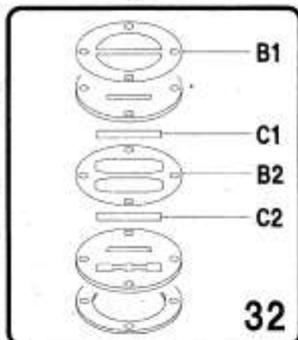
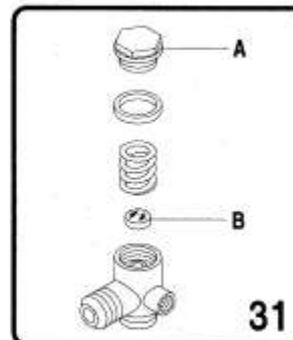
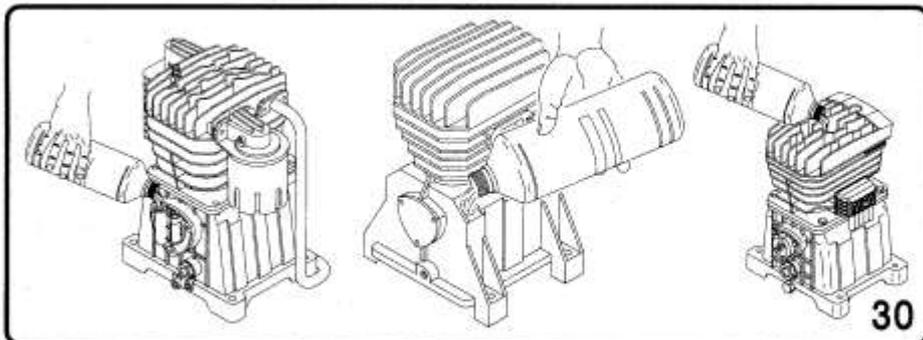
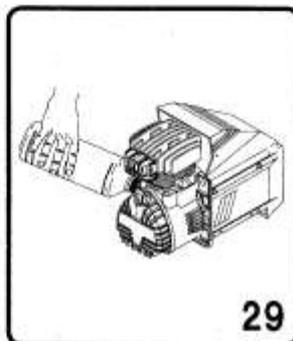
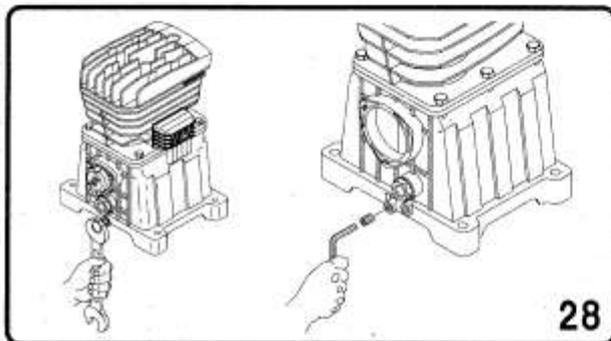
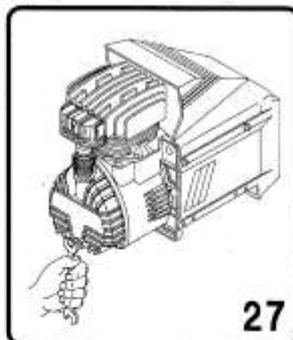
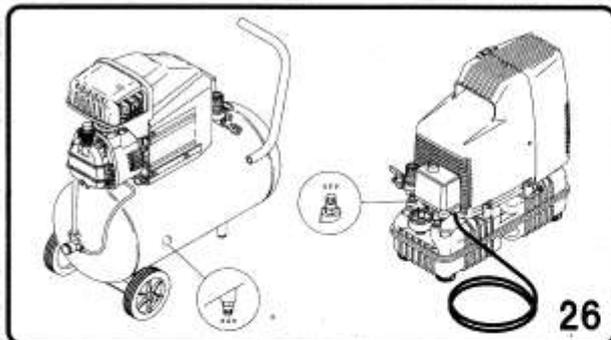
	After 100 working hours, max. 6-8 weeks after initial start	After 500 working hours, at least once a year	After 2000 working hours, at least every 2 years
Change Oil	•	•	•
Check air filter for pollution	•	•	•
Regulate tension of the V-belt	•	•	•
Clean automatic condensate drain (option) on air receiver	•	•	•
Check valve for erosion			•

 The given intervals are based on experience. They can differ considerably depending on the operating conditions.

 Always tighten all screw connections that have been loosened during maintenance work.









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