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INSTRUCTION MANUAL

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**LW 570 E**

**BREATHING AIR  
COMPRESSOR**



## S A F E T Y P R E C A U T I O N S

### General Notice

This instruction manual contains the operation and maintenance procedures necessary to safely run your L&W compressor.

We strongly recommend to read this manual thoroughly prior to operation and follow all the safety precautions precisely. Damage resulting from any deviation from these instructions is excluded from warranty and liability for this product. Be sure to pay attention to the following points:

- Fill only tanks with a valid hydrostatic test date
- Never exceed the working-pressure rating indicated on the tank
- Carry out proper maintenance on the compressor and filtration system
- Care must be taken to avoid the intake of contaminated air in to the compressor
- Do not exceed maximum operating temperatures

### Safety Precautions

- Read the operation manual of your compressor carefully
  - Allow only qualified personnel to run the compressor
  - Do not place any objects on compressor while in operation
  - Make sure no person or object can accidentally touch any moving parts while running
  - Take care that the intake-air is pure and free of toxic gases
  - All work on compressor must be carried out while compressor is disconnected for the power supply and depressurized
  - Check unit regularly for air- & oil leaks
  - Never weld damaged high-pressure tubes
  - Filling-hoses must be in perfect condition; special attention should be paid to the connecting fittings
  - Do not touch any hot compressor / engine parts while doing maintenance work as these may cause injury by burning. Wait until unit has cooled down.
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Technical Data	LW 570 E
Delivery Capacity:	570 l/min
Max. Pressure:	350 bar (420 bar on request)
RPM Compressor:	1,060 min <sup>-1</sup>
No of Pressure Stages:	4
Cylinder Bore 1st Stage::	Ø 105 mm
Cylinder Bore 2nd Stage:	Ø 50 mm
Cylinder Bore 3rd Stage:	Ø 25 mm
Cylinder Bore 4th Stage:	Ø 14 mm
Medium:	Air
Intake Pressure:	atmospheric
Oil Pressure:	+2.0 bar
Oil Capacity:	2.5 ltr
Intake Temperature:	0 < +45°C
Ambient Temperature:	+5 < +45°C
Cooling Air Requirement:	> 4,500 m <sup>3</sup> /h
Voltage: (Special Windings on Request)	400 V / 3-Phase / 50 Hz
Protection Class Drive Motor	IP 55
Motor Power:	15 kW
RPM Motor:	2,890 min <sup>-1</sup>
Start:	Star / Delta
Noise level:	83 dB[A] at 1m distance
<b>Dimensions:</b>	
Depth:	680 mm (26.7")
Length:	1,230 mm (48.4")
Height:	1,000 mm (39.4")
Weight:	approx. 310 kg
Capacity Filter Housing:	2.3 ltr.

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**Application:**

Breathing air compressor. Large capacity, slow running stationary compressor ideal for professional applications. Low noise levels for working areas, can be placed in a corner for space economy.

**Specifications:**

- Ready to connect, fully wired with pneumatic/electric compressor control and start/delta start cycle, automatic stop and automatic condensation drain
- Operating panel with start/stop buttons and drain test button, final pressure gauge and hours counter
- Sturdy steel housing, powder coated in RAL 6026
- All pistons with piston rings
- Low pressure oil pump
- Oil/water separators after each stage, safety valve for each stage
- Inlet pressure control and cut-off (ECC version only)
- Air purification in accordance with EN 12021, capacity of cartridge: 900m<sup>3</sup> @ +20°C
- Pressure maintaining and non-return valve
- 4 filling hoses with filling valves and connections (DIN, CGA or YOKE)

**Options:**

ECC Control

Motor overload protection switches

Filling module in the front panel, 4 self venting filling valves, hoses and connections

Dual pressure filling module, 200 and 300 bar, pressure reducer, safety valve

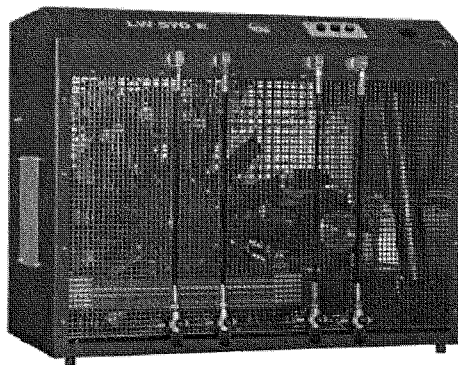
Special windings for electric motor and control (e.g. 220V / 60Hz)

Puracon Air Controller, sensor and display mounted on the compressor, power supply from compressor

Oil pressure control

420 bar version

HP-Outlet

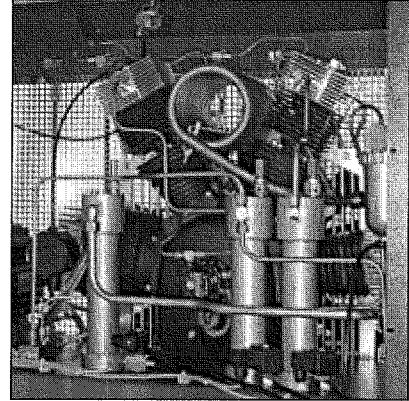


LW 570 E (Standard Specification)

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## Method of Operation

Air comes through a micro filter into the first stage, gets compressed and leaves through the heat exchanger into a water / oil separator. A short pipe leads the air into the second cylinder and is further compressed, leaving again through a heat exchanger and the second water /oil separator and then compressed in the third stage to the final pressure. The air then goes through the after cooler and into the mole carbon filter. The purified air goes through a safety valve and into the pressure maintaining valve, there to the air manifold and filling hoses or, if required, into an external filling panel.



4-stage Compressor Block

## Electric Motor

Standard specification: 15 kW / 3-phase / 50 Hz / 3000 rpm

Motors are mounted by four bolts to adjustable base plate.

- *Special windings on request* -

## V-Belt Tension

Correctly adjusted V-belts do just not slip when starting the compressor. To adjust the V-belt tension turn M10 bolt - located next to the drive motor flange - till correct tension is achieved. Over tightening of the V-belts can cause damage to both electric motor- and compressor bearings.

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## Installation

The compressor should only be connected by a qualified licensed electrician.

**NOTE: Check direction of rotation immediately after the first start !**

If the direction of rotation is wrong, the oil pump will not lubricate the 3<sup>rd</sup> & 4<sup>th</sup> stage pistons which may cause them to cease. Furthermore the unit would not get the required cooling air flow. When facing the front of the compressor cover, the direction of rotation should be anticlockwise (check arrow on motor). Don't place compressor closer than 1 meter to any walls and ensure good ventilation.

## Filling Process

Fill only air tanks which are:

- suitable for final pressure
- hydro static tested (check last testing date)

*The automatic switch off, or safety valve, has to be checked before tanks can be filled*

- Close filling valves
- Start compressor by green push button (std. Version)
- Connect tank to compressor - *Filling valve and tank are still closed -*
- First slowly open filling valve
- Carefully open tank valve
- Fill tank to desired pressure
- Close tank valve
- Disconnect tank from filling connection
- Turn off compressor by red push button (std. version)

## Automatic Condensation Dump System

The L&W 570 E comes as standard with an auto dump system. Solenoids open and drain all four condensate separators about every 30 minutes..

Operation can be check by the blue push button on the dash panel.

## Intake Filter

A micro filter cartridge is used as an intake filter. We recommend that the filter cartridge should be replaced every 1000 working hours.

A dirty, contaminated filter restricts the intake flow, reduces the compressor's capacity and causes overheating.

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## Cylinder Heads and Valves

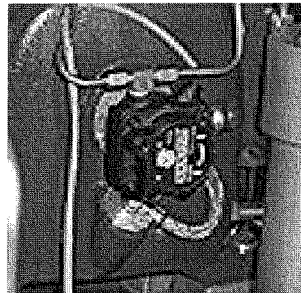
Inlet and outlet valves are located inside the cylinder heads. The inlet valve opens on the down stroke. The outlet valve opens on the upstroke. The valves should be replaced after 2000 working hours due to normal wear and tear. To replace valves the cylinder heads have to be removed. All three valves are combined valves. Inlet and outlet valves form one unit. The first and second stage valves are of plate valve design. The third and fourth stage valves use spring operated pistons which act inside brass cylinders. These valves sit loose inside the cylinder head, alloy rings are used as high temperature seals. There are no special tools required to replace any of these valves.

## Lubrication

Crankshaft is lubricated by an oil slinger.

1<sup>st</sup> and 2<sup>nd</sup> stage are lubricated by spray oil.

3<sup>rd</sup> & 4<sup>th</sup> stage are lubricated by a mechanical oil pump



*Low pressure Oil Pump with Suction Hose & Pressure Pipes*

The oil pump is protected by a plastic sieve which is located under the oil pump cover. This has to be cleaned every 1000 working hours.

2.5 litre of synthetic oil (order no. L&W 9001) is required for an oil change.

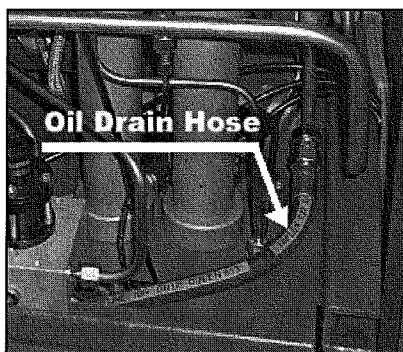
### **NOTE:**

Open right hand side service cover to check oil level.

It never should be lower than the red marking on the oil level indicator glass (located on compressor crankcase).

### ***How to do an oil change***

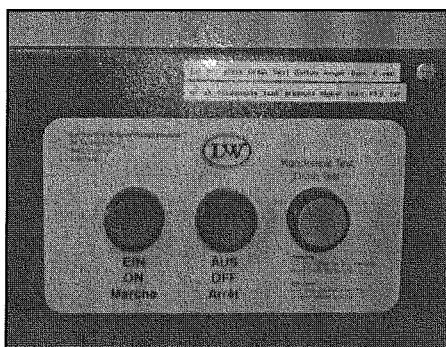
- Run compressor for 5 mins.
- Stop compressor by red push button



*Oil Drain Hose*

- Remove plug from oil drain hose
- Open ball valve to drain the oil (use plug cap to do this)
- Close ball valve once the oil has dropped out
- Put plug back on
- Remove oil filler cap
- Fill in required oil capacity (check oil level indicator glass)
- Put on oil filler cap back on (make sure that the O-ring is in place)

### Starting the Compressor for the first Time



*Start / Stop Keys & Condensate Drain Test Button (non-ECC system)*

- Place the compressor in a distance of at least 50 cm to any walls (air temperature max. +40°C)
- Check compressor oil level
- Check if gas filter cartridge is in place
- Make sure all filling valves are closed (if attached)
- Start compressor by green push button (Standard Version)
- Check direction of rotation - immediately after the 1<sup>st</sup> start
- Run compressor to max. pressure
- Check if end-pressure switch works at max. pressure



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- Check compressor unit for air leaks
  - Check auto dump valves for function by pushing the blue push button on the dash panel (standard version)
  - Turn off compressor by red push button (Standard Version)
  - Release pressure by filling valves

### Safety Valves

Every pressure-stage is equipped with its own safety valve. They protect the unit from over -pressure / load.

Safety valves are adjusted to:

**1<sup>st</sup> Stage: 8 bar**

**2<sup>nd</sup> Stage: 22 bar**

**3<sup>rd</sup> Stage: 70 bar**

**4<sup>th</sup> stage: final pressure**

If a safety valve blows it indicates problems with either inlet or outlet valve of the following stage (valid for 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> stage compression stages).

**NOTE: Faulty safety valves should always be replaced!**

### Oil / Water Separator

Condensate will be separated after every stage of compression. All four separators have solenoids which were controlled by an electronic timer. The timer is located in the switchboard compartment and activates the dump valves every 30 minutes - interval is adjustable - to release to the condensate collector tank.

The condensate separators are free of maintenance. However, we do recommend that they should be cleaned every 1000 working hours. Replace O-rings if necessary.

### Final Air Purifier (Mole Carbon Filter)

The mole carbon filter housing is mounted to the right hand of the housing - *capacity: 2.3 litre*, order no.: 450 8022 (standard molecular sieve / active carbon cartridge, special applications on request).

Inside the filter housing a jet blows the compressed gas on to the housing wall. Oil and water mist condenses and flows to the bottom of the housing. The gas then flows through the mole carbon filter cartridge, which purifies the air from moisture and odours. Cartridges should be changed at periods of 38 hours (@ +20°C) or more often, depending on humidity of the medium and ambient temperature.

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All cartridges are vacuum sealed. We recommend that they should be opened just before they will be fitted to the compressor, as they could be saturated with moisture just by being exposed to high humidity.

To change the filter cartridge stop the compressor. It will then automatically release all remaining air pressure. This can take up to two minutes. Once the unit is free of pressure the filter housing cap can be unscrewed with the filter tool delivered with the compressor. If any pressure remains in the housing, it will be almost impossible to open the filter housing cap. The filter itself can also be unscrewed with the filter tool and replaced by a new one. Screw cap on hand tight.

### Pressure Maintaining / Non Return Valve

A pressure maintaining / non return valve is fitted ahead of the mole carbon filter housing. It maintains a pressure of not less than 150 bar in the filter housing - optimising the effectiveness of the filter.

### Maintenance

The compressor oil level has to be checked before each day of use.

#### ***Compressor oil change intervals:***

1<sup>st</sup> oil change after 25 working hours

2<sup>nd</sup> oil change after 75 working hours

and subsequently every 200 working hours - but at least once a year -

Only use synthetic compressor oil (order number LW 9001).

About 2.5 litre of oil is required for an oil change.

#### **The mole carbon filter cartridge has to be changed regularly**

*(see change of mole carbon filter cartridge)*

- Check connections for leaks every 20 working hours
- Change inlet air filter every 1000 working hours
- Open and clean condensation separators (first and second stage) every 1000 working hours
- Replace inlet / outlet valves every 6000 working hours



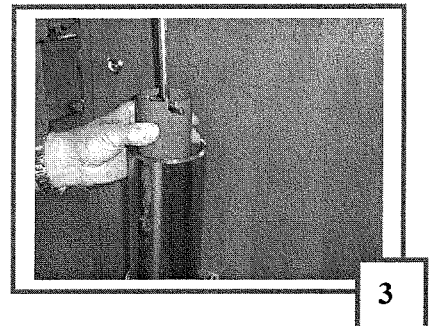
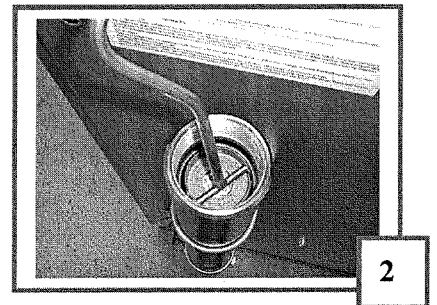
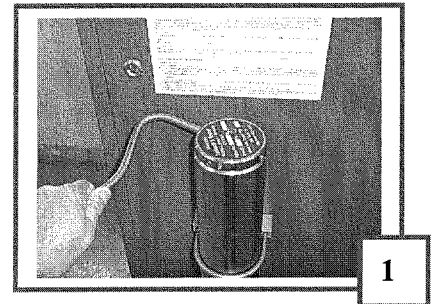
# FILTERWECHSEL

## Stationäre L&W Kompressoren

### Filter cartridge change

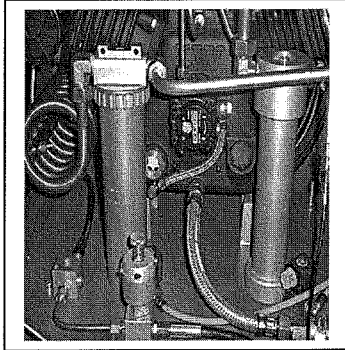
- Unscrew the filter housing cap anti-clockwise, first with the special cartridge key and later by hand (1)
- Place the other end of the cartridge key in the filter cartridge in the filter housing (2)
- Unscrew the filter cartridge anti-clockwise and pull the cartridge out of the housing (3)
- Check O-ring for wear and grease thread of top cap
- Open the sealing of the new filter cartridge and use the cartridge key to place it in the filter housing (3)
- Screw in the new filter cartridge clockwise with the cartridge key hand tight (2)
- Refit the cap of the filter housing clockwise, first by hand and than by the filter key, hand tight (1)
- Close the drain valve of the separator / filter housing if only the hand operated drain is mounted.

The filter cartridge replacement is now completed, ensure that the saturated filter cartridge is disposed of correctly at an approved waste point.





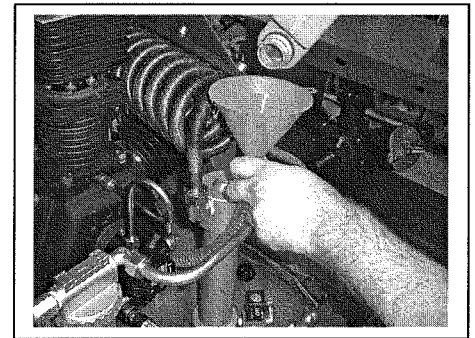
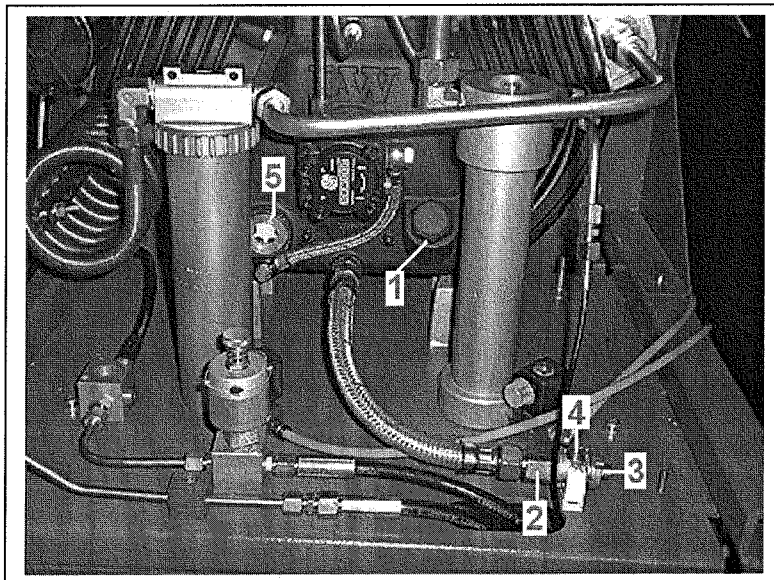
## OIL CHANGE INSTRUCTIONS LW 300 / LW 450 / LW 570 Types



For the periodic oil change, please follow the time schedule of the instruction manual;  
Only use the original L&W synthetic oil 9001/01 (1 ltr bottle) or 9001/12 (12 x 1 ltr bottle packing).

Before changing the oil, be sure the compressor is switched off and cannot be inadvertently started. Disconnect it from the power supply or by switch off the starter of the gasoline or Diesel engine.

To conduct an oil change, the temperature of the oil must be at least +20°C to allow it to flow easily. In cold climates, the compressor should run first for about 15 minutes, dependent on the ambient temperature;



The picture above is showing the easy way of oil refilling by using a funnel placed on the oil drain hose.

### Oil change

- Unscrew the filling cap anti-clockwise (1)
- Remove the oil drain hose from its holder (2)
- Unscrew the drain hose cap anti-clockwise (3)
- Hold the drain hose over a container for waste oil and open the drain valve (4)
- Let the oil drain completely, close valve (4), screw on plug (3) and relocate the hose
- Refill the block with original L&W compressor oil (approx. 1.8 ltr) by using a funnel
- The indicator glass (5) should be filled up to the top level - **DO NOT OVERFILL WITH OIL!!**
- Refit the oil filler cap

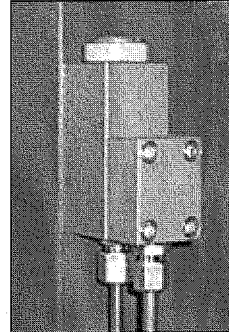
The oil change is now completed, **ensure the filling cap (1) is securely refitted.**  
The schedule in the maintenance manual will indicate the next oil change or the ECC display.  
Ensure the waste oil is disposed of correctly at an approved waste oil point.

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## Pressure maintaining and non-return valve

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*The combined pressure maintaining non-return valve is located in the system directly after the final filter housing*



*Pressure Maintaining Valve*

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### Pressure maintaining valve

The pressure maintaining valve serves to keep the pressure in the final filter housing at a minimum of 150 - 180 bar. This high pressure creates more condensation in the separator/housing that can be mechanically removed (opening the drain valve) before the air is finally purified in the final filter, thus extending the life of the filter cartridge.

When the compressor is started, the pressure will build up in each stage as the compressor runs. The pressure in the final filter housing will increase until the pressure maintaining valve set pressure is reached. As a result of this function, the filling pressure gauge will not show any pressure for approx 1 min after the compressor is started and no air will flow out of the filling valve if opened.

Once the pressure maintaining valve opens, the pressure gauge will respond by climbing quite rapidly (within a few seconds) to the set pressure of the pressure maintaining valve (default 150 – 180 bar).

### Adjusting the pressure maintaining valve:

- Open the filling valve to vent the system completely, close the filling valve (*Pressure gauge reads 0 bar*)
- Start the compressor
- Monitor the pressure gauge
- The valve will open and the pressure the gauge climbs to quickly to the set pressure, this should be 150 – 180 bar
- If the pressure setting is outside this valve, adjust the pressure maintaining valve as follows:

### Increase the pressure setting:

- Stop the compressor and open the drain valves
  - Open the filling valve to vent the system after the pressure maintaining valve (*Pressure gauge reads 0 bar*)
  - Loosen the locking screw on the pressure maintain valve
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- Using a suitable tool, screw the valve setting screw clockwise to increase the spring tension
- Start the compressor and check the pressure setting, adjust as necessary
- Re-tighten the locking screw
- Check the pressure maintaining opening pressure once again

**Decrease the pressure setting:**

- Stop the compressor and open the drain valves
- Open the filling valve to vent the system after the pressure maintaining valve (*Pressure gauge reads 0 bar*)
- Loosen the locking screw on the pressure maintain valve
- Using a suitable tool, screw the valve setting screw anti-clockwise to decrease the spring tension
- Start the compressor and check the pressure setting, adjust as necessary
- Re-tighten the locking screw
- Check the pressure maintaining opening pressure once again

**Warning:**

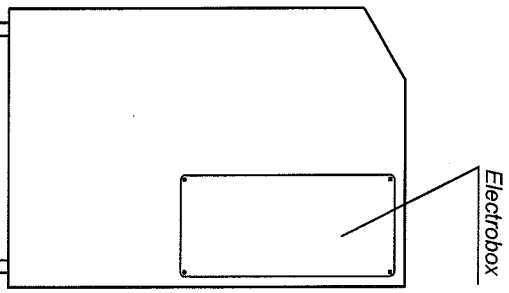
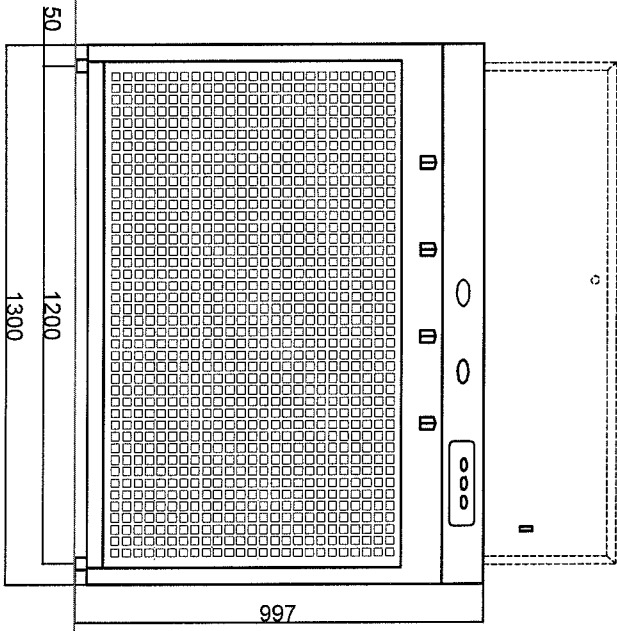
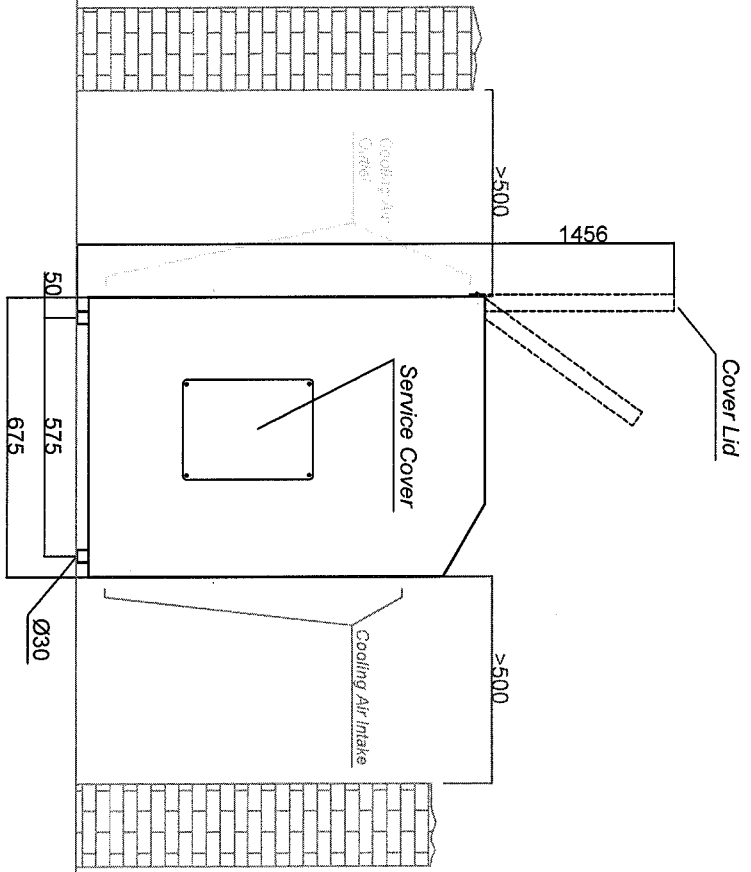
If the pressure maintaining valve is set at a higher pressure than the maximum working pressure, the final safety valve will blow off before the pressure maintaining valve opens, the pressure gauge will read 0 bar!

After repair work where the pressure maintaining valve is not yet adjusted, the basic setting is the setting screw approx 3 turns in to the housing.

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**Non-return valve**

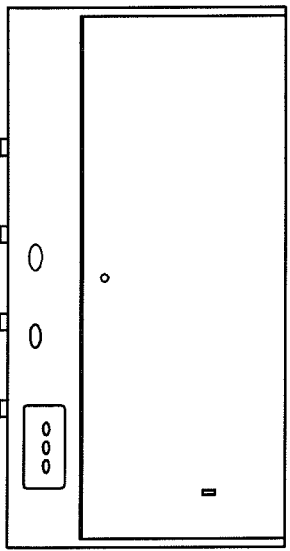
The non-return valve is located in the system after the pressure maintaining valve and prevent air from flowing back from the filling lines into the final filter housing/compressor block. The non-return valve is operating correctly if the pressure gauge on the filling valve remains constant when the drain valves on the compressor are opened.



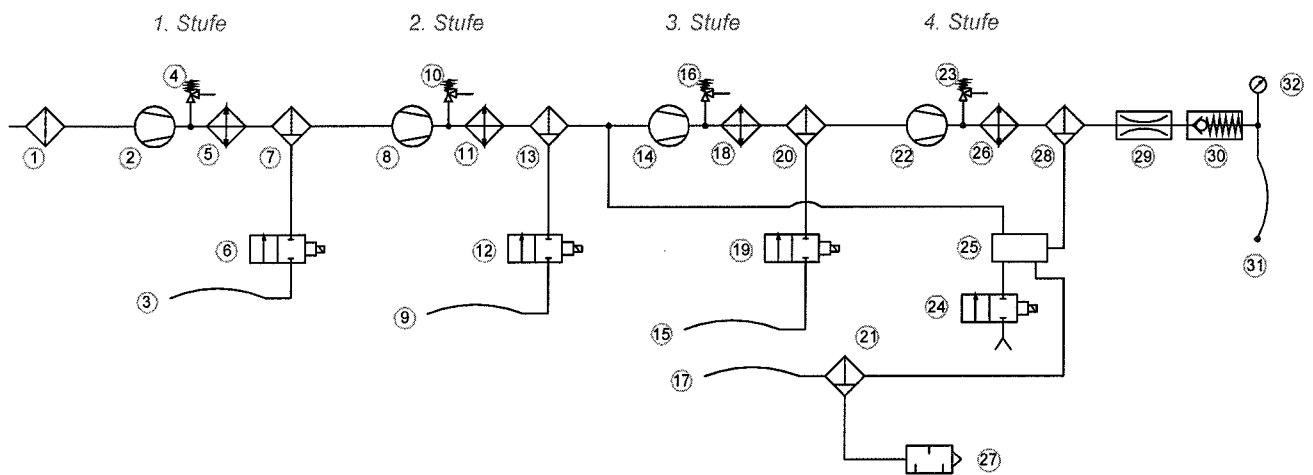
**LW 570 E**

**LENHARDT & WAGNER GMBH**

Date: 15.09.2003



**LW 570 E / LW 570 ES**  
LENHARDT & WAGNER GMBH



**FLIESSDIAGRAMM - FLOW DIAGRAMME**

- |  |   |
|--|---|
| 1 Ansaugfilter / Air Intake Filter                     | 15 Kondensatablaßschlauch / Condensate Release Hose           |
| 2 1. Verdichterstufe / 1st Pressure Stage              | 16 Sicherheitsventil 3. Stufe / Safety Valve 3rd Stage        |
| 3 Kondensatablaßschlauch / Condensate Release Hose     | 17 Kondensatablaßschlauch / Condensate Release Hose           |
| 4 Sicherheitsventil 1. Stufe / Safety Valve 1st Stage  | 18 Wärmetauscher / Heat Exchanger                             |
| 5 Wärmetauscher / Heat Exchanger                       | 19 Kondensatventil / Condensate Valve                         |
| 6 Kondensatventil / Condensate Valve                   | 20 Öl-/Wasserabscheider / Oil-/Water Separator                |
| 7 Öl-/Wasserabscheider / Oil-/Water Separator          | 21 Kondensatabscheider / Condensate Separator                 |
| 8 2. Verdichterstufe / 2nd Pressure Stage              | 22 4. Verdichterstufe / 4th Pressure Stage                    |
| 9 Kondensatablaßschlauch / Condensate Release Hose     | 23 Sicherheitsventil 4. Stufe / Safety Valve 4th Stage        |
| 10 Sicherheitsventil 2. Stufe / Safety Valve 2nd Stage | 24 Kondensatventil / Condensate Valve                         |
| 11 Wärmetauscher / Heat Exchanger                      | 25 Pneumatisches Kondensatventil                              |
| 12 Kondensatventil / Condensate Valve                  | 26 Wärmetauscher / Heat Exchanger                             |
| 13 Öl-/Wasserabscheider / Oil-/Water Separator         | 27 Schalldämpfer Kondensatablaß / Silencer Condensate Release |
| 14 3. Verdichterstufe / 3rd Pressure Stage             | 28 Öl-/Wasserabscheider / Oil-/Water Separator                |
|  | 29 Druckhalteventil / Pressure Maintaining Valve              |
|  | 30 Rückschlagventil / Non-Return Valve                        |
|  | 31 Hochdruckschlauch / HP-Hose                                |
|  | 32 Druckmanometer / Pressure Gauge                            |



# Maintenance List

## L W 5 7 0 E

Routine Service	Intervals	Qty.	Order No.
Replace filter cartridge	every 38 working hours (@ +20 °C)	1	450 8022
Check oil level	before each day of use		
Oil changes	1 <sup>st</sup> after 25 working hours 2 <sup>nd</sup> after 75 working hours 3 <sup>rd</sup> after 275 working hours thereafter every 200 working hours - but at least once a year	2,500 ml	450 9001  (1 litre)
Replacing air inlet filter	Depends on degree of pollution - but at least once a year	1	450 7017
Check V-belt	every 200 working hours		
Replacing in- & outlet valves	every 2,000 working hours	1 <sup>st</sup> stage: 1 2 <sup>nd</sup> stage: 1 3 <sup>rd</sup> stage: 1 4 <sup>th</sup> stage: 1	450 7030 450 7065 260 0084 450 7005
Check pressure maintaining / non-return valve	every 200 working hours		
Check safety devices	once a year - this service is exclusively expert work		
Check pressure pipes for air leaks	every 200 working hours		
Clean pressure pipes	Depends on degree of pollution - at least once a year		
Check filling hoses for damage	before each use - once a year by an expert		
Replace oil suction hose	every 5,000 working hours	1	450 4005
Clean sieve of oil pump	every 1,000 working hours		
Replace sintered filter of condensate valve	after 1,000 working hours - thereafter every 5,000 working hours	1	450 2011 b
Replace sintered filter	every 1,000 working hours	1	450 10004

# Maintenance List

## **L W 5 7 0 E**

<b>Routine Service</b>	<b>Intervals</b>	<b>Qty.</b>	<b>Order No.</b>
of waterseparators		1	450 10019
Clean oil / waterseparator and check for corrosion	every 1,000 working hours		
Check connections and fixings for correct torque	after 15 working hours - thereafter every 500 working hours		
Replace silencer	every 3,000 hours		

# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E



Benennung	Description	Bestell Nr. / Order No.
Sockel für Sicherheitsventil G3/8"	Block for Safety Valve G3/8"	SHVS
Schraube	Bolt	LW 160 / 190 21
Schraube	Screw	LW 160 / 190 143
Schraube	Bolt	LW 160 / 190 125
U-Scheibe	Washer	LW 160 / 190 276
O-Ring	O-Ring Filling Valve	LW 160 / 190 264
O-Ring DIN Flaschenanschluss	O-Ring Filling Valve Neck	LW 160 / 190 262
O-Ring	O-Ring	LW 160 / 190 261
O-Ring	O-Ring	LW 160 / 190 260
Madenschraube M3 x 8 mm	Worm Screw M3 x 8 mm	LW 160 / 190 259
Kupferdichtscheibe Ø4 x 6 x 3 mm	Washer Copper Ø 4 x 6 x 3 mm	LW 160 / 190 258
Kupferdichtscheibe Ø8 x 14 x 1 mm	Washer Copper Ø8 x 14 x 1 mm	LW 160 / 190 257
Federscheiben	Packing Washer	LW 160 / 190 256
Dichtsitz	HP Seat	LW 160 / 190 255
Handrad Entlüftungsspindel (Ø27 mm)	Hand Wheel Bleed Spindle (Ø27 mm)	LW 160 / 190 251
Handrad Füllspindel (Ø35 mm)	Hand Wheel Filling Spindle (Ø 35 mm)	LW 160 / 190 250
Mutter Handrad	Hand Wheel Nut	LW 160 / 190 249
Klemmverschraubung	Shut-Off Valve Collar	LW 160 / 190 248
Adapterwelle	Shut-Off Valve Stem	LW 160 / 190 247
Entlüftungsspindel	Bleed Valve Stem	LW 160 / 190 246
Verschraubung M16 x 1,5 mm / 10 L	Connection M16 x 1.5 mm / 10 L	LW 160 / 190 245
Gehäuse Füllventil	Filling Valve Body	LW 160 / 190 240
Rohrleitung	Pipe	
Rohrleitung	Pipe	
Filterschlüssel	Filter Tool	20
T-Stück Verschraubung	T-Piece Connection	0101
Steckkupplung Kondensatschlauch; gerade	Connection Condensate Hose, straight	0131
T-Stück Verschraubung	T-Piece Connection	0158
Nadellager	Needle Bearing	0261
Rohrleitung	Pipe	000286
Rohrleitung	Pipe	000287
Rohrleitung	Pipe	000288
Rohrleitung	Pipe	000289
Rohrleitung	Pipe	000290
Rohrleitung	Pipe	000291

# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E



Benennung	Description	Bestell Nr. / Order No.
Drucktaste grün	2-way Push Button (green)	000303
Elektroschaltkasten, komplett	Electro Box, complete	000304
Kondensatorrohr	Condensate Pipe	000305
Rohrleitung	Pipe	000306
Rohrleitung	Pipe	000307
Rohrleitung	Pipe	000308
Rohrleitung	Pipe	000309
Halter Luftkühler	Bracket Air Radiator	000310
Halter Luftkühler	Bracket Air Radiator	000311
Kühlerhalter links	Main Bracket Cooling Pipe (left hand side)	000312
Kühlerhalter rechts	Main Bracket Cooling Pipe (right hand side)	000313
Ölschlauchhalter	Oil Hose Bracket	000314
Kühlrohrleitung 4. Stufe	Cooling Pipe 4 <sup>th</sup> Stage	000315
Kühlrohrleitung 3. Stufe	Cooling Pipe 3 <sup>rd</sup> Stage	000316
Schwungrad	Flywheel	000317
Haltering Flügelblätter	Fixing Ring Fan Blades	000318
Kühler 1. Stufe	Air Radiator 1st Stage	000319
Verschraubung	Connection	000320
Kühlerhalterung	Bracket Diesel Radiator	000321
Kühlerhalterung	Bracket Diesel Radiator	000322
Motorhalterung	Engine Bracket	000323
Motorhalterung	Engine Bracket	000324
Motorhalterung	Engine Bracket	000325
Kühlerhalter 2. Stufe	Bracket Heat Exchanger 2 <sup>nd</sup> Stage	000331
Wärmetauscher 2. Stufe	Heat Exchanger 2 <sup>nd</sup> Stage	000332
Klemmschiene	Rail	000333
Kunststoffeinlage	Plastic Hose Heat Exchanger	000334
Rohrleitung	Pipe	000335
Rohrleitung	Pipe	000336
Rohrleitung	Pipe	000337
Rohrleitung	Pipe	000338
Magnetventil 3. & 4. Stufe	Solenoid 3 <sup>rd</sup> & 4 <sup>th</sup> Stage	000339
Magnetventil 1,2 D220 mit Spule TM35	Solenoid 1.2 D220 with coil TM35	000339
	Spacer	000340
Kurbelgehäuse	Crankcase	000341
Ventilkopf 3. Stufe	Valve Head 3 <sup>rd</sup> Stage	000342
Zylinder 3. Stufe	Cylinder 3 <sup>rd</sup> Stage	000343
Führungszylinder 3. Stufe	Guide Cylinder 3 <sup>rd</sup> Stage	000344

# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E



Benennung	Description	Bestell Nr. / Order No.
Zylinder 4. Stufe	Cylinder 4 <sup>th</sup> Stage	000346
Führungszylinder 4. Stufe	Guide Cylinder 4 <sup>th</sup> Stage	000347
Ventilkopf 1. Stufe	Valve Head 1 <sup>st</sup> Stage	000348
Obere Ventildichtung 1. Stufe	Upper Gasket Valve 1 <sup>st</sup> Stage	000349
Untere Ventildichtung 1. Stufe	Lower Gasket Valve 1 <sup>st</sup> Stage	000350
Zylinder 1. Stufe	Cylinder 1 <sup>st</sup> Stage	000351
Sicherungsring	Circlip	000353
Sicherungsring	Circlip	000354
Öldruckleitung	Oil Pressure Pipe	000355
Öldruckleitung	Oil Pressure Pipe	000356
Ölablaßrohr	Oil Outlet Pipe	000357
Kurbelwelle , kompl.	Crankshaft LW 570, complete	000358
Kolben 1. Stufe	Piston 1 <sup>st</sup> Stage	000359
Satz Kolbenringe 1. Stufe	Piston Rings 1 <sup>st</sup> Stage, complete set	000360
Kolbenbolzen	Piston Pin	000361
Kolben 2. Stufe	Piston 2 <sup>nd</sup> Stage	000362
Satz Kolbenringe 2. Stufe	Piston Rings 2 <sup>nd</sup> Stage, complete set	000363
Sicherungsring	Circlip	000364
Satz Kolbenringe 3. Stufe	Piston Rings 3 <sup>rd</sup> Stage, complete set	000365
Kolben 3. Stufe	Piston 3 <sup>rd</sup> Stage	000366
Satz Kolbenringe 4. Stufe	Piston Rings 4 <sup>th</sup> Stage, complete set	000367
Kolben 4. Stufe	Piston 4 <sup>th</sup> Stage	000368
Ventil 1. Stufe, komplett	Valve 1 <sup>st</sup> Stage, complete	000369
Kolbenbolzen	Piston Pin	000373
Anlaufscheiben Kurbelwelle	Crankshaft Shims	000374
Sicherungsring	Circlip	000375
Ölschlauch	Oil Hose	000376
Steckhalter Ölschlauch	Plastic Clamp Oil Drain Hose	000377
Ölablaßventil	Oil Drain Valve	000378
Oberteil Wasserabscheider	Top Water Separator	000379
Sicherheitsventil 2. Stufe	Safety Valve 2 <sup>nd</sup> Stage	000380
Sicherheitsventil 3. Stufe	Safety Valve 3rd Stage	000381
Schraube	Bolt	000382
Aufschraubstutzen Filterpatrone	Brass Adapter Filter Cartridge	000383
Düse Filtergehäuse	Jet Filter Housing	000384
Füllschlauch	Filling Hose	000385
Kunststoffscheibe	Plastic Washer	000386

# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E



Benennung	Description	Bestell Nr. / Order No.
Feder	Spring	000387
Schraube	Screw	000388
U-Scheibe	Washer V-Belt tensioning Bolt	000390
Dichtring Sicherheitsventil G3/8"	Seal Ring Safety Valve G3/8"	000391
Schraube	Bolt	000392
Aludichtring	Alloy Ring Solenoids	0393
Halter Kondensatabscheider	Bracket Condensate Separator	000395
Schraube	Bolt	000396
Winkelverschraubung	Elbow Connection	000397
Schraube Motorhalteplatte	Bolt Engine Plate (long)	000398
Schraube Motorhalteplatte	Bolt Engine Plate (short)	000399
Flexschlauch 1. Stufe	Outlet Hose 1 <sup>st</sup> Stage	000400
Flexschlauch 1. Stufe / Wasserabscheider	Hose 1 <sup>st</sup> Stage Cooler / Water Separator	000401
Rohrklemme 8mm	Alloy Clamp 8mm Pipe	000402
Gewindeniete M6	Threaded Rivet M6	000403
Massekabel	Earth Strap	000404
Schraube Motorhalterung	Bolt Engine Mounting	000405
Keilriemen LW 570 D	V-Belt LW 570 D	000408
Verschraubung	Connection	0409
O-Ring Zylinderflansch	O-Ring Cylinder Flange	000409
Verschraubung	Connection	0410
Pleuel 2. & 3. Stufe	Connection Rod	000410
Pleuele 1. Stufe	Connecting Rod 1 <sup>st</sup> Stage	000411
O-Ring	O-Ring	000412
Schraube	Bolt	000413
Ring	Ring	000413
Verschraubung	Connection	0414
Gerade Schraubverbindung	Straight Connection	000414
T-Stück Verschraubung	T-Piece Connection	0429
Winkelverschraubung	Elbow 8L	0431
Verschlußstopfen G1/4"	Plug G1/4"	0443
Verschlußstopfen	Plug	0444
Verschraubung	Connection	0451
Winkel	Elbow Condensate Hose	0457
Schottverschraubung	Bulkhead Connection	0461
Schraube	Bolt	000499
Druckfeder Druckhalte-/Rückschlagventil	Main Spring Pressure Maintaining Valve	000506
Schraube	Bolt	0507

# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E



Benennung	Description	Bestell Nr. / Order No.
U-Scheibe	Washer	0508
Dichtring Druckhalte-/Rückschlagventil	Gasket Ring Pressure Maintaining Valve	000508
Schraube	Screw	0509
Klemmmutter Druckhalte-/Rückschlagventil	Lock Nut Pressure Maintaining Valve	000511
Schraube	Bolt	0512
Einstellschraube Druckhalte-/Rückschlagventil	Spindle Pressure Maintaining Valve	000512
Federzentrierstück Druckhalteventil	Spring Adapter Pressure Maintaining Valve	000513
Stift Druckhalte-/Rückschlagventil	Pin Pressure Maintaining Valve	000514
Gehäuse Druckhalteventil	Housing Pressure Maintaining Valve	000515
Dichtring Druckhalteventil	Seal Ring Pressure Maintaining Valve	000516
Schraube	Bolt	0517
Feder Druckhalteventil	Spring Pressure Maintaining Valve	000517
Messingscheibe Druckhalteventil	Brass Washer Pressure Maintaining Valve	000518
Dichtkolben Druckhalteventil	Plastic Piston Pressure Maintaining Valve	000519
Einlaßverschraubung Druckhalteventil	Inlet Connection Pressure Maintaining Valve	000520
Aluminium-Dichtkappe Ventil 4. Stufe	Alloy Valve Cap 4 <sup>th</sup> Stage Valve	000533
Aluminium-Dichtkappe Ventil 3. Stufe	Alloy Valve Cap 3 <sup>rd</sup> Stage Valve	000534
Aluminium Dichtring	Alloy Seal Ring In- & Outlet Valve	000540
Ein-/Auslaßventil 3. Stufe komplett	In- & Outlet Valve 3 <sup>rd</sup> Stage, complete	000544
Ein-/Auslaßventil 4. Stufe komplett	In- & Outlet Valve 4 <sup>th</sup> Stage, complete	000545
Riemenscheibe 50 Hz (LW 570 E)	Pulley 50 Hz (LW 570 E)	000620
Verschraubung	Connection	000783
Verschraubung	Connection	000794
Standfuß	Plastic Foot	450 1002
Messingbuchsen Klappdeckel	Cover Lid Brass Bushes	450 1014
Federscheibe	Spring Washer	450 1015
Befestigungsschraube	Fixing Screw	450 1016
Druckmanometer 0-400 bar, Ø63 mm	Pressure Gauge 0-400 bar, Ø63 mm	450 1025 B
Druckmanometer	Pressure Gauge	450 1025 A
Enddruckschalter 0-600 bar	Endpressure Switch 0-600 bar	001512

# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E



Benennung	Description	Bestell Nr. / Order No.
Klemmhalter Ölablaßschlauch	Plastic Clamp Oil Hose	001527
Ölablaßventil	Oil Release Valve	001548
Riemenscheibe 60 Hz (LW 570 E)	Pulley 60 Hz (LW 570 E)	001643
Antriebsmotor 15kW / 400 V / 50 Hz	Drive motor 15kW / 400 V / 50 Hz	002000
Rohrleitung	Pipe	002002
Rohrleitung	Pipe	002003
Rohrleitung	Pipe	002004
Rohrleitung	Pipe	002005
Gehäusedeckel	Cover Lid	002006
Wartungsdeckel	Service Cover	002007
Frontgitter	Front Grating	002008
Kompressorgehäuse Standard Ausführung	Compressor Housing Standard Specification	002009
Deckel Elektrokasten	Cover Elektro Box	002010
Typenschild	Type Sign LW 570 E	002011
Kompressorgehäuse MSA Ausführung	Compressor Housing MSA Specification	002012
Magnetventil 1. & 2. Stufe	Solenoid 1 <sup>st</sup> & 2 <sup>nd</sup> Stage	450 2009
Schalldämpfer	Silencer Condensate Separator	450 2014
Kondensatbehälter	Condensate Bowl	450 2015
Anschlussadapter 1. Stufe	Inlet Adapter 1 <sup>st</sup> Stage	450 3000
Winkelverschraubung	Elbow Connection	450 3001
Winkelverschraubung	Elbow Connection	450 3002
Verschraubung	Connection	450 3003
Verschraubung	Connection	450 3004
Verschraubung	Connection	450 3007
Adapter Ölsaugschlauch	Adapter Oil Suction Hose	450 3009
Winkelverschraubung 8L	Elbow Connection 8L	450 3010
Winkelverschraubung	Elbow Connection	450 3011
Verschraubung	Connection	450 3016
Reduzierung G1/2" / G1/4"	Reduction G1/2" / G1/4"	450 3021
Verschraubung G8L	Connection G8L	450 3022
T-Stück Verschraubung	T-Piece Connection	450 3025
Flaschenanschluss DIN 200 bar	Tank Connector DIN 200 bar	4044
Handrad DIN 200 bar (schwarz)	Handwheel DIN 200 bar (black)	4045
Handrad DIN 300 bar (rot)	Handwheel DIN 300 bar (red)	4046
Flaschenanschluss DIN 300 bar	Tank Connector DIN 300 bar	4048
Enddruck-Sicherheitsventil mit TÜV-Abnahme - bitte gewünschten Enddruck	Endpressure Safety Valve with TÜV Certificate - please state required	4053



# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E



Benennung	Description	Bestell Nr. / Order No.
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<i>angeben -</i>	<i>endpressure -</i>	
Mutter	Nut	450 6004
Mutter	Nut	450 6005
Mutter	Nut	450 6006
Mutter	Nut	450 6007
Schraube	Screw	450 6009
U-Scheibe	Washer	450 6010
U-Scheibe	Washer	450 6011
U-Scheibe	Washer	450 6012
Haltebügel Filtergehäuse	Clamp Filter Housing	450 6021
Schraube	Screw	450 6026
Mutter	Nut	450 6027
Schraube	Bolt	450 6028
Alu-Filterhalter	Alloy Bracket Filter Housing	450 6030
O-Ring	O-Ring	450 7004 A
Ventilkopf 4. Stufe	Valve Head 4 <sup>th</sup> Stage	450 7006
Enddruck-Sicherheitsventil 225 bar (G3/8")	Endpressure Safety Valve 225 bar (G3/8")	450 7007
Enddruck-Sicherheitsventil 330 bar (G3/8")	Endpressure Safety Valve 330 bar (G3/8")	450 7008
Zylinder-Rollenlager	Main Roller Bearing	450 7009
Papierdichtung	Paper Gasket	450 7010
Ölpumpenadapter	Oil Pump Drive Adapter	450 7012
Ölpumpenflansch	Oil Pump Flange	450 7013
Schraube	Bolt	450 7014
Ansaugfiltergehäuse, komplett	Air Intake Filter Housing, complete	450 7016
Ansaugfilterpatrone	Air Intake Filter Cartridge	450 7017
Ölpumpe, komplett	Oil Pump, complete	450 7018
Ölstandsauge	Oil Level Indicator	450 7021
Sicherungsring	Circlip	450 7026 A
Dichtung Zylinderflansch	Gasket Cylinder Flange	450 7028 A
Ventilkopf 2. Stufe	Valve Head 2 <sup>nd</sup> Stage	450 7032
Sicherheitsventil 1. Stufe	Safety Valve 1 <sup>st</sup> stage	450 7033
Hauptlagerflansch	Main Bearing Flange	450 7035
Radial-Wellendichtring	Crankshaft Seal	450 7037
Schraube	Bolt	450 7042
Schraube	Bolt	450 7044
Schraube	Bolt	450 7044
Schraube	Bolt	450 7046
Schraube	Bolt	450 7051

# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E



Benennung	Description	Bestell Nr. / Order No.
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Scheibe Kurbelwelle	Crankshaft Washer	450 7052
Schraube	Bolt	450 7064
Ventil 2. Stufe - komplett	Valve 2 <sup>nd</sup> Stage, complete	450 7065
Obere Ventildichtung 2. Stufe	Upper Valve Gasket 3 <sup>rd</sup> Stage	450 7066 B
Untere Ventildichtung 2. Stufe	Lower Valve Gasket 2 <sup>nd</sup> Stage	450 7066 A
Ölablaßschlauch	Oil Drain Hose	450 7068
Paßfeder	Woodruff Key	450 7074
Kupferscheibe	Copper Washer	450 7075
Schneidring 8mm	Olive Seal 8mm	450 7079
Überwurfmutter 8L	Nut 8L	450 7080
Schneidring	Olive Seal	450 7081
Mutter	Nut	450 7082
Schneidring 18mm	Olive Seal 18mm	450 7083
Überwurfmutter 18L	Connection Nut 18L	450 7084
Adapter	Adapter Crankcase Breather Hose	450 7090
Schraube	Adapter Bolt	450 7092
Druckhalteventil - komplett	Pressure Maintaing Valve, complete	450 8006 B
U-Scheibe	Washer	450 8010
O-Ring Endfiltergehäuse	O-Ring Filter Housing	450 8011
Stützring Endfiltergehäuse	Support Ring	450 8012
Endfiltergehäuse 2,3 ltr, komplett	Filter Housing 2.3 ltr., complete	450 8021
Atemluft Filterpatrone	Filter Cartridge Breathing Air	450 8022
Oberteil Wasserabscheider	Top of Water Separator	450 10001
Drallscheibe	Twist Disc	450 10002
Wasserabweiser	Filter Protection	450 10003
Sinterfilter	Sinter Filter	450 10004
Halteteller	Centre Disc	450 10005
Deckel	Plastic Disc	450 10006
Mutter	Nut	450 10007
O-Ring Wasserabscheider	O-Ring Water Separator	450 10008
Befestigungsring	Fixing Ring	450 10010
Drallscheibe	Twist Disc	450 10017
Wasserabweiser	Filter Protector	450 10018
Sinterfilter	Sinter Filter Water Separator	450 10019
Halteteller	Centre Disk	450 10020
O-Ring Wasserabscheider	O-Ring Water Separator	450 10021
Ring Wasserabscheider	Ring Water Separator	450 10022
Rohr Wasserabscheider	Main Tube Water Saparator	450 10023
Sockel für Sicherheitsventil	Block for Safety Valve	40051

# ERSATZTEILLISTE - SPARE PART LIST

LW 570 E

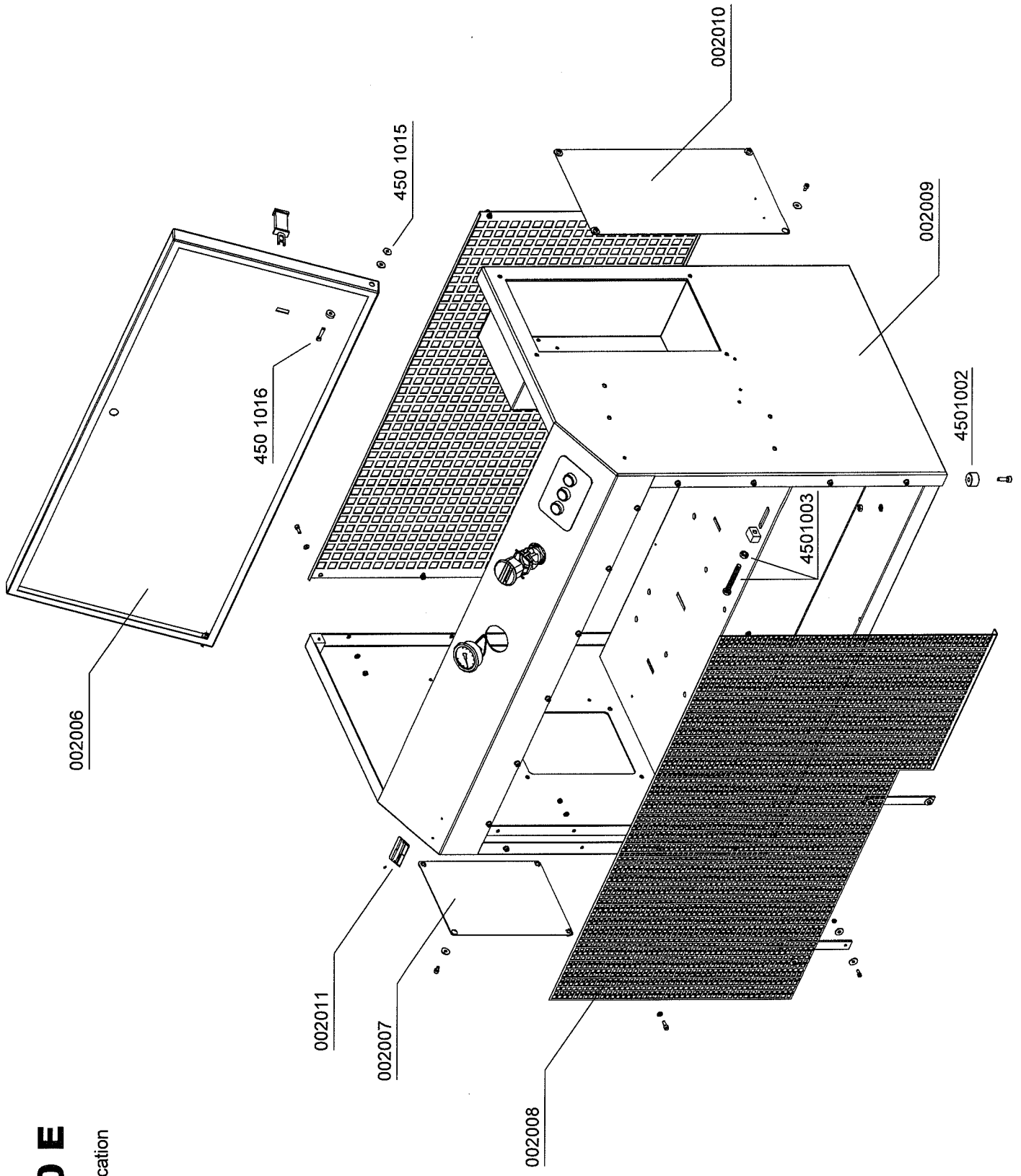


Benennung	Description	Bestell Nr. / Order No.
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mit TÜV-Abnahme	with TÜV Certificate	
Flügelblatt	Fan Blade	2600045
Verschlußstopfen	Plug	2600124
Schraube	Bolt	2600153
Schraube	Screw	2600154
T-Stück Verschraubung	T-Piece Connection	2600158
U-Scheibe	Washer	2600162
U-Scheibe	Washer	2600171
Aluminium Füllstutzen	Alloy Filling Block	2600175
Personen-Schutzschalter	Safety Switch Cover Lid	2600200
Magnetventil, komplett	Solenoid, complete	4502009
Enddruckschalter 0-350 bar	Endpressure Switch 0-350 bar	4502013
Schloßschraube	Bolt	4506013
Madenschraube	Worm Screw	4506020
Verschraubung Ölablaß	Connection Oil Release	4507067
Paßfeder	Woodruff Key	4507074

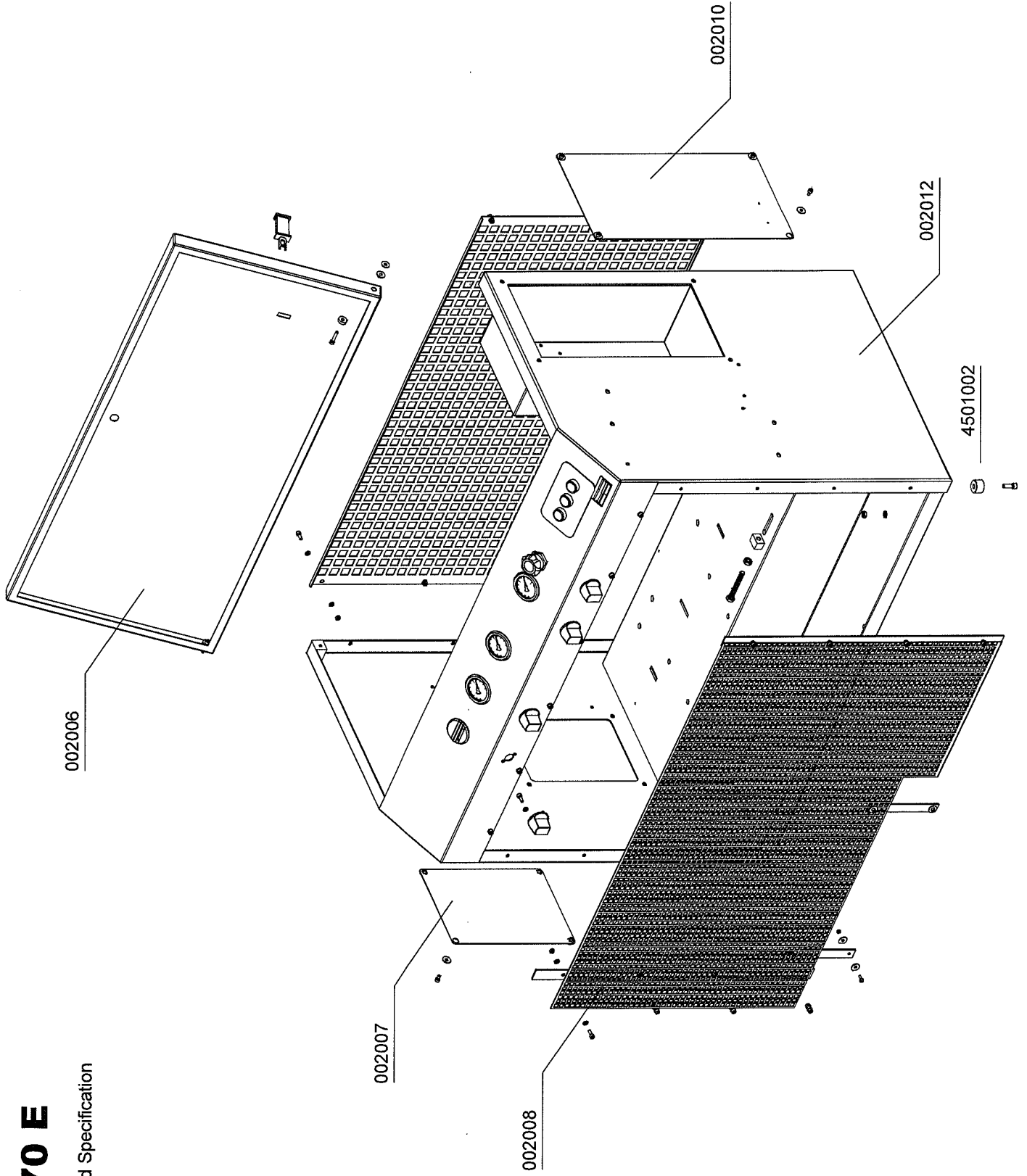
# LW 570 E

Standard Specification

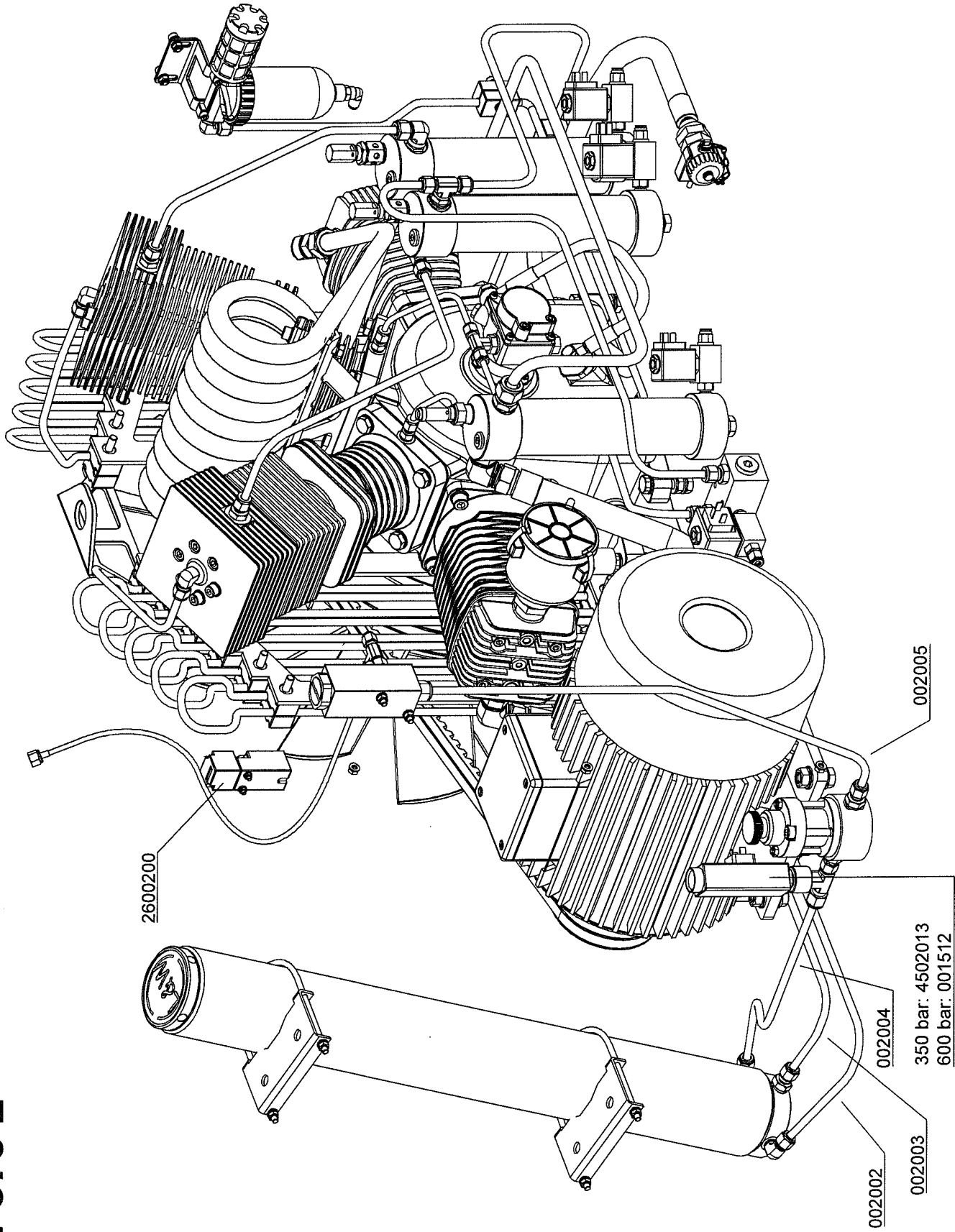


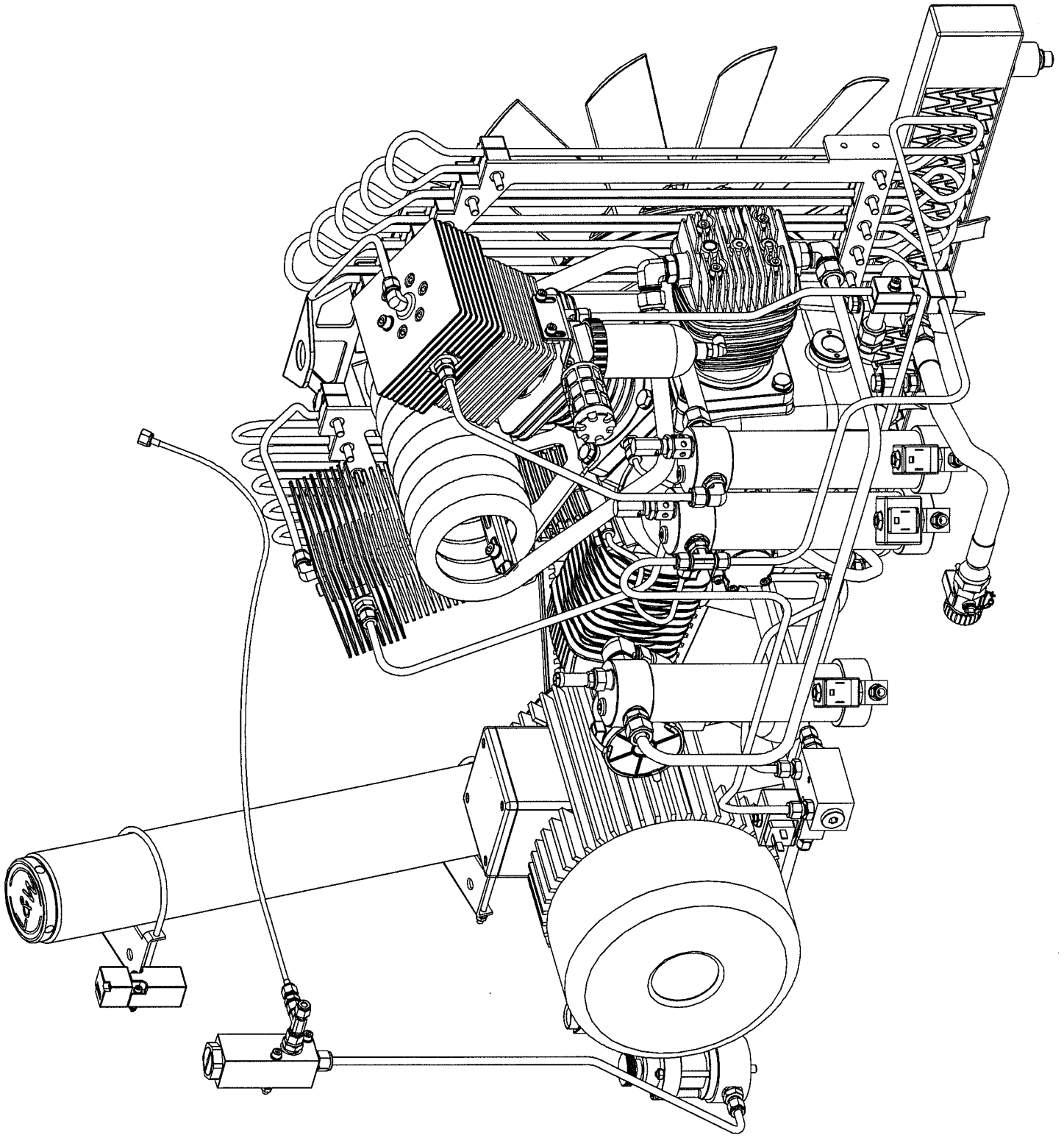
# LW 570 E

MSA Standard Specification



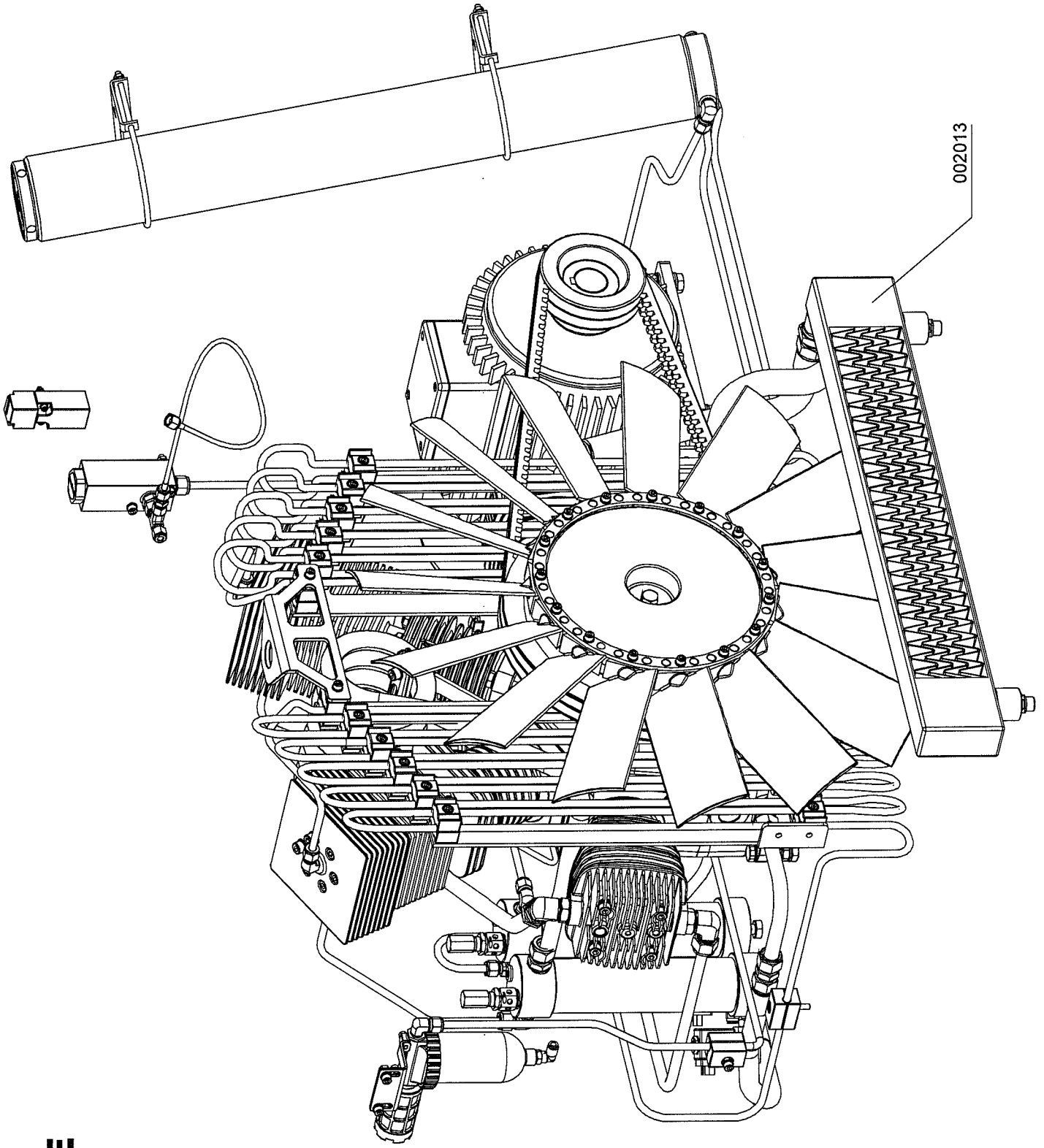
# LW 570 E





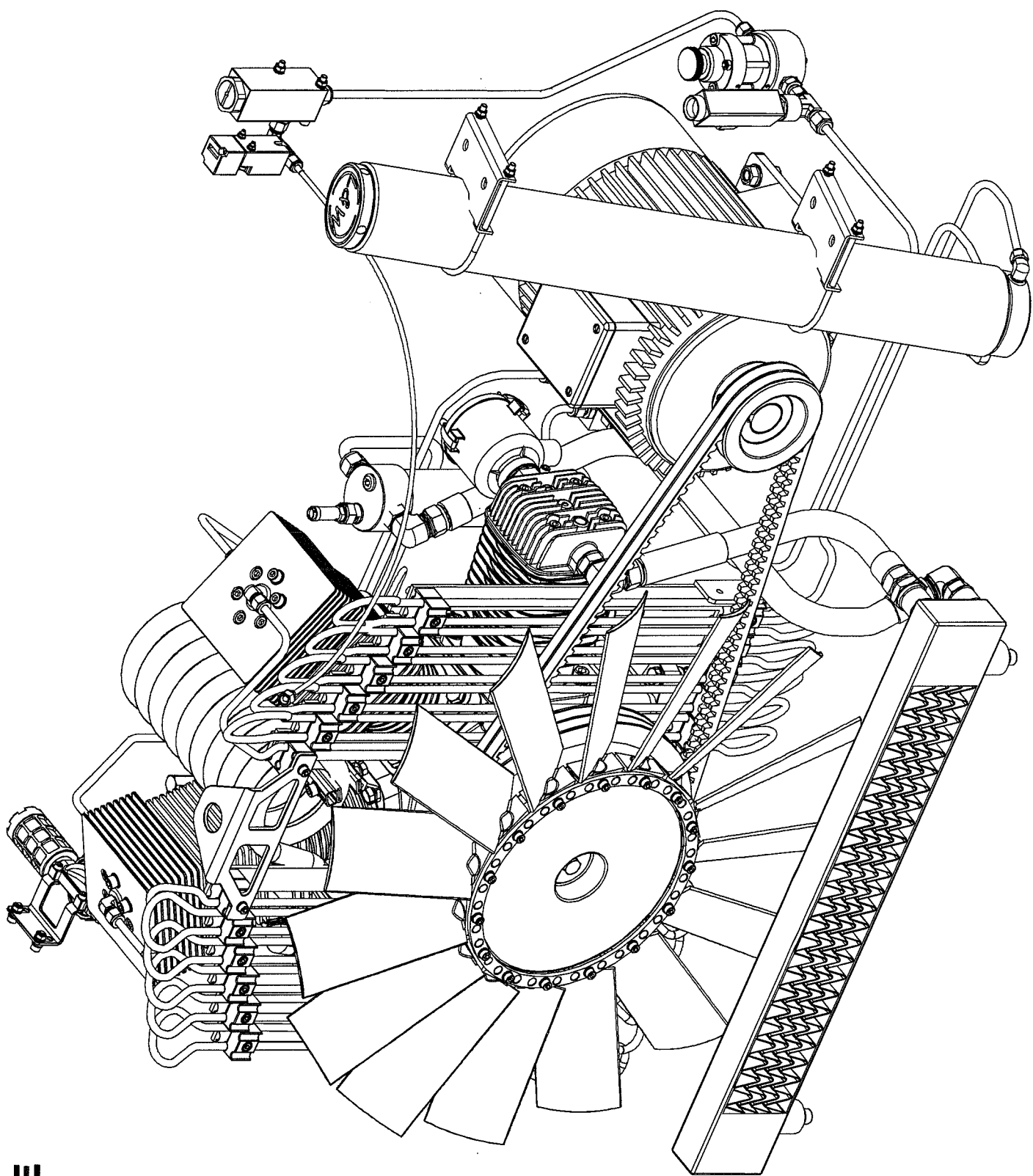
**LW 570 E**

# LW 570 E



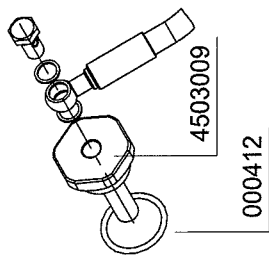


**LW 570 E**

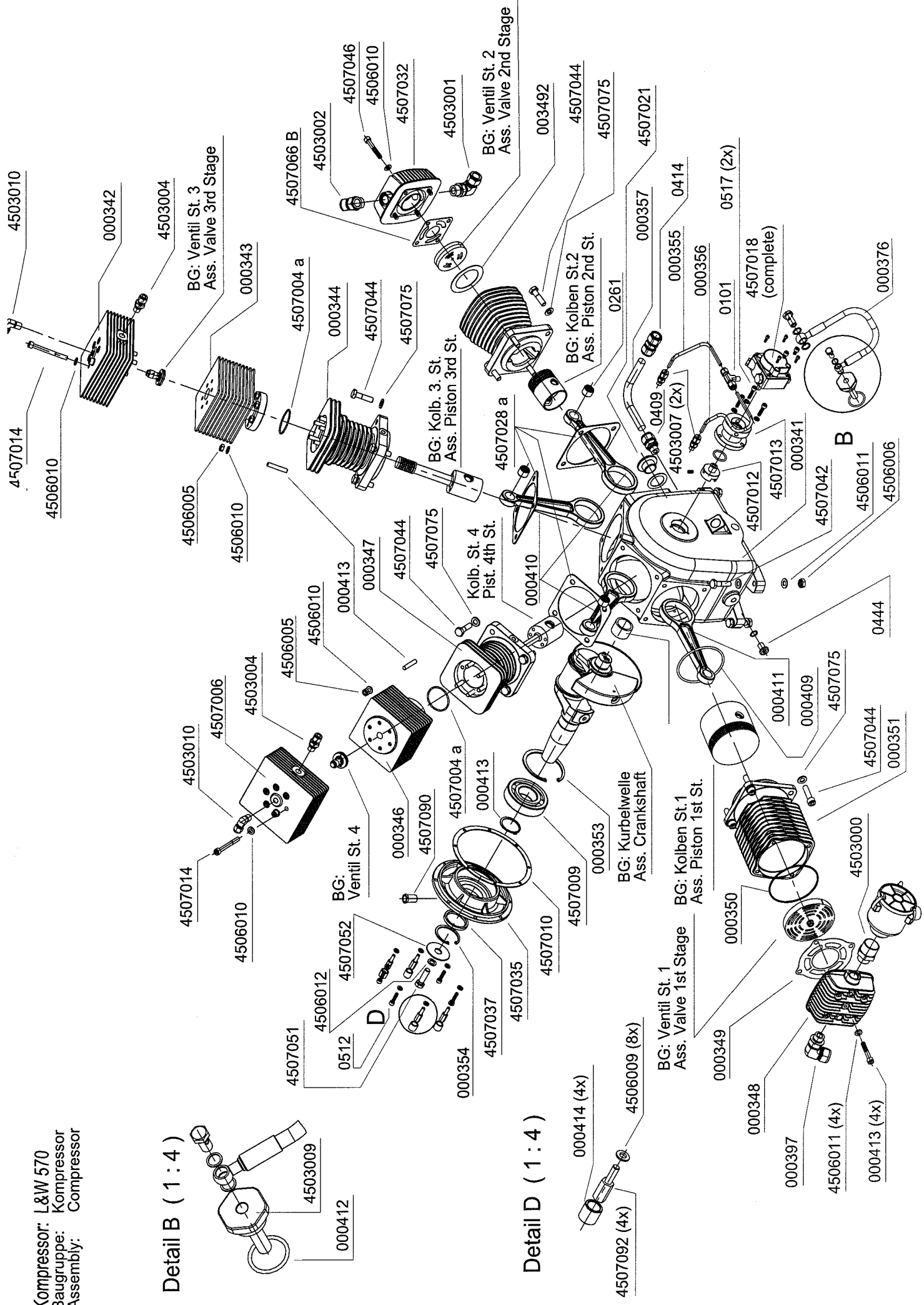
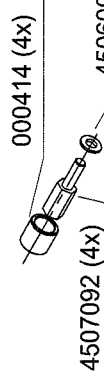


Kompressor: L&W 570  
 Baugruppe: Kompressor  
 Assembly: Compressor

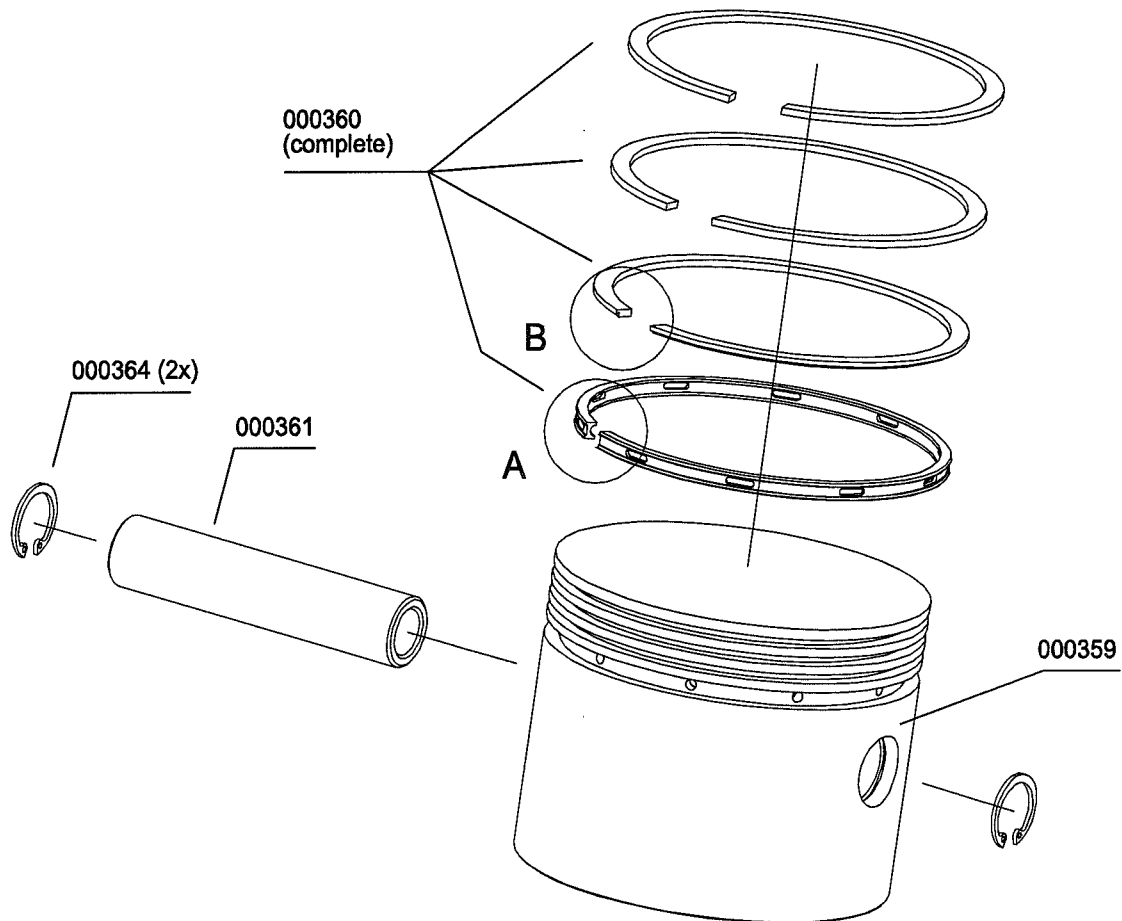
Detail B ( 1 : 4 )



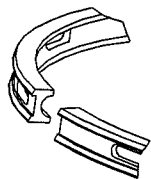
Detail D ( 1 : 4 )



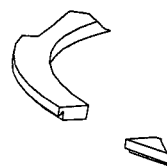
Kompressor: L&W 570 E  
Baugruppe: Komplettkolben Stufe 1  
Assembly: Piston 1st Stage



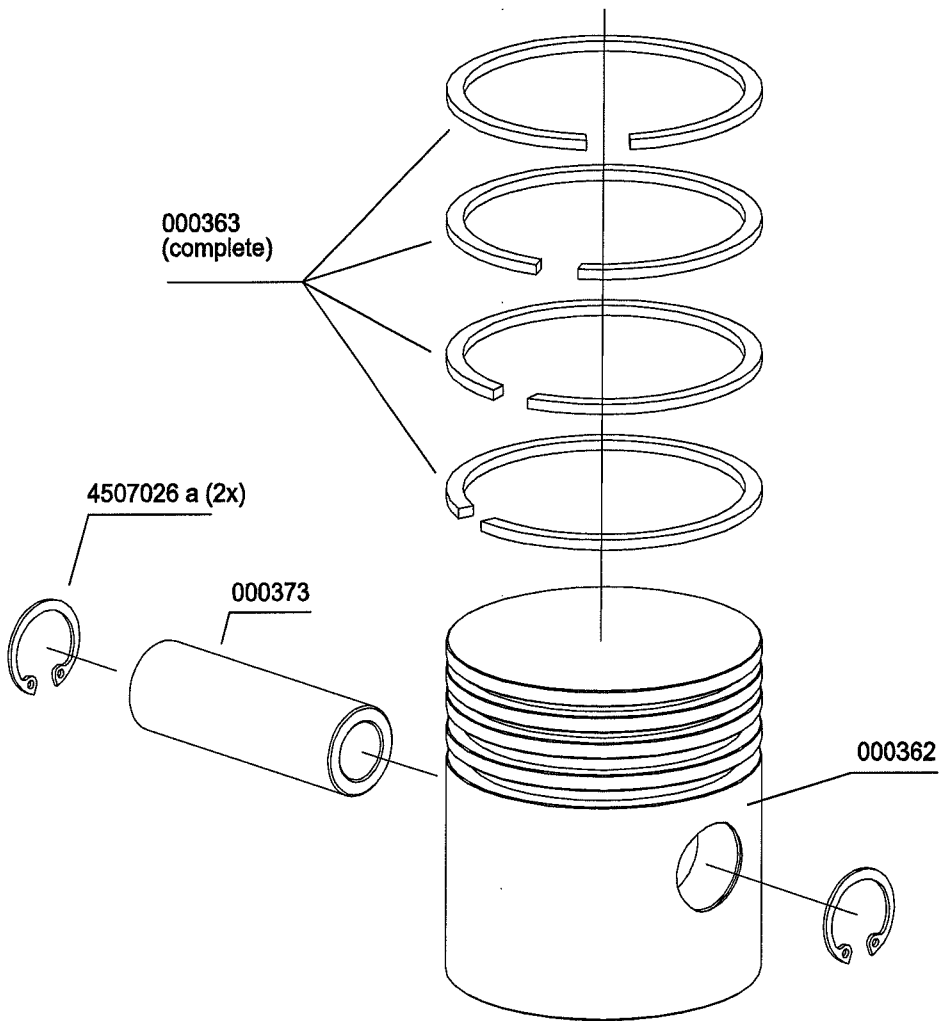
A (1:1)



B (1:1)

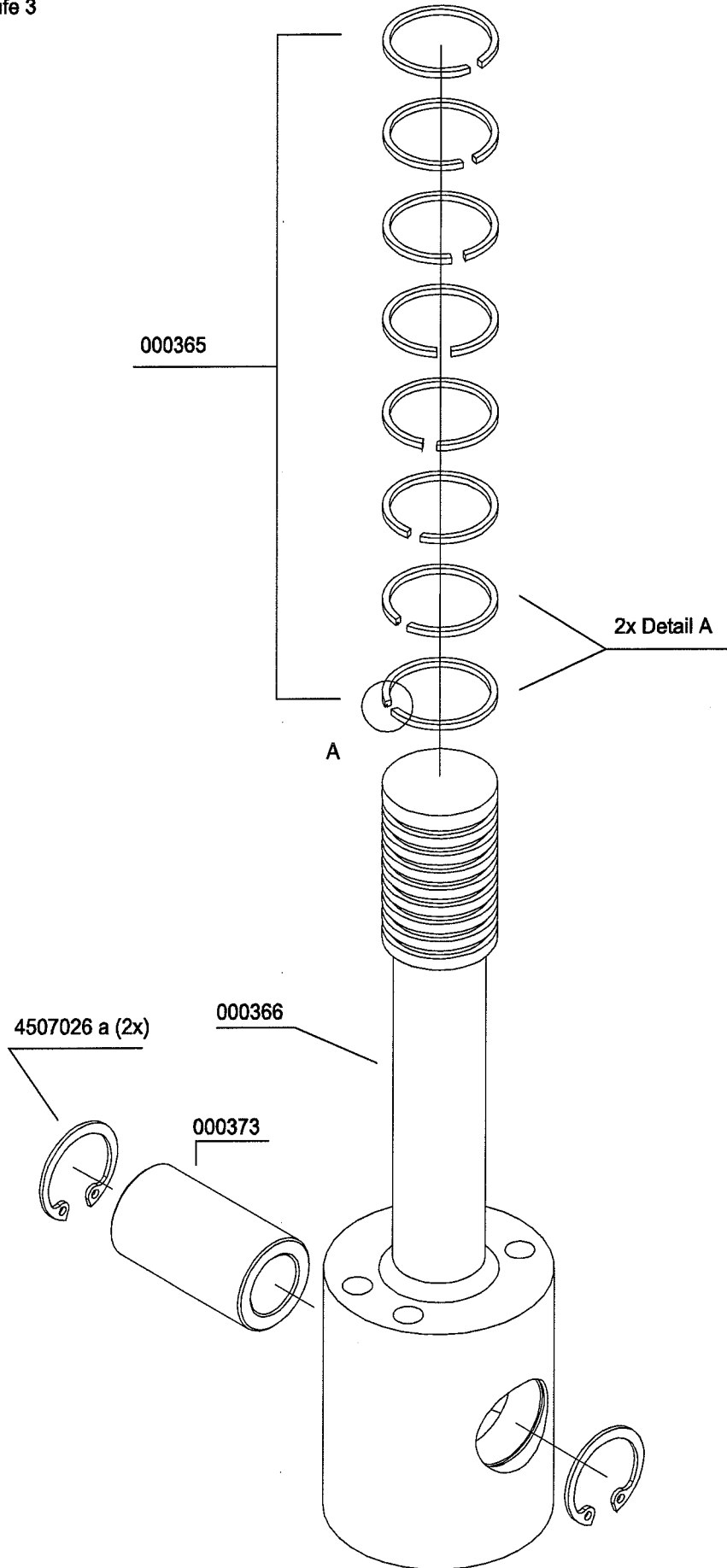
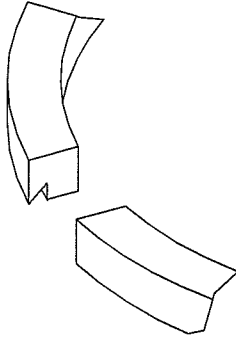


Kompressor: L&W 570 E  
Baugruppe: Komplettkolben Stufe 2  
Assembly: Piston 2nd Stage



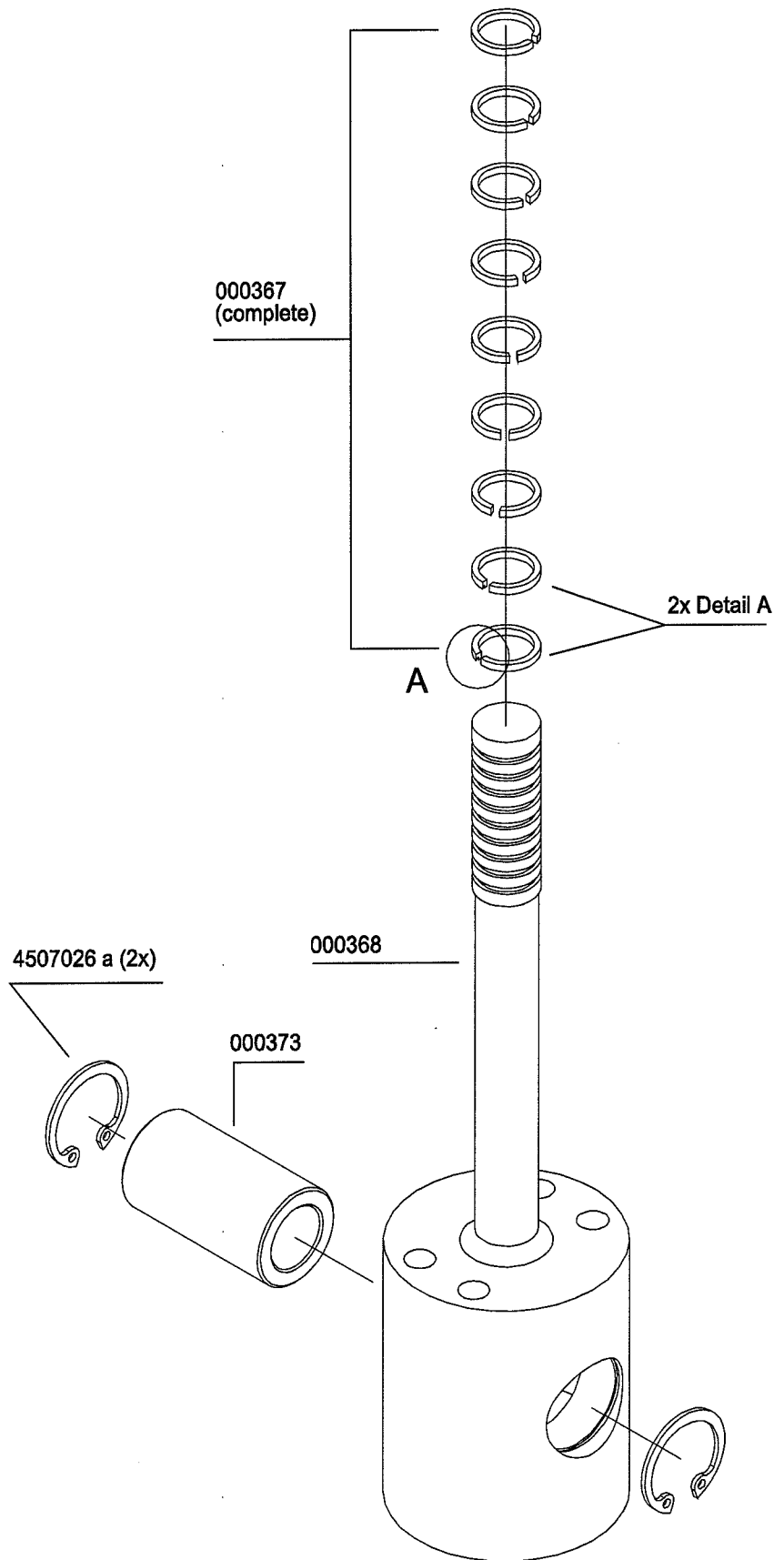
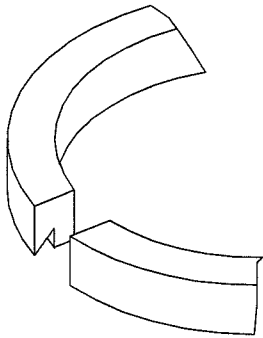
Kompressor: L&W 570 E  
Baugruppe: Komplettkolben-Stufe 3  
Assembly: Piston 3rd stage

A (5:1)



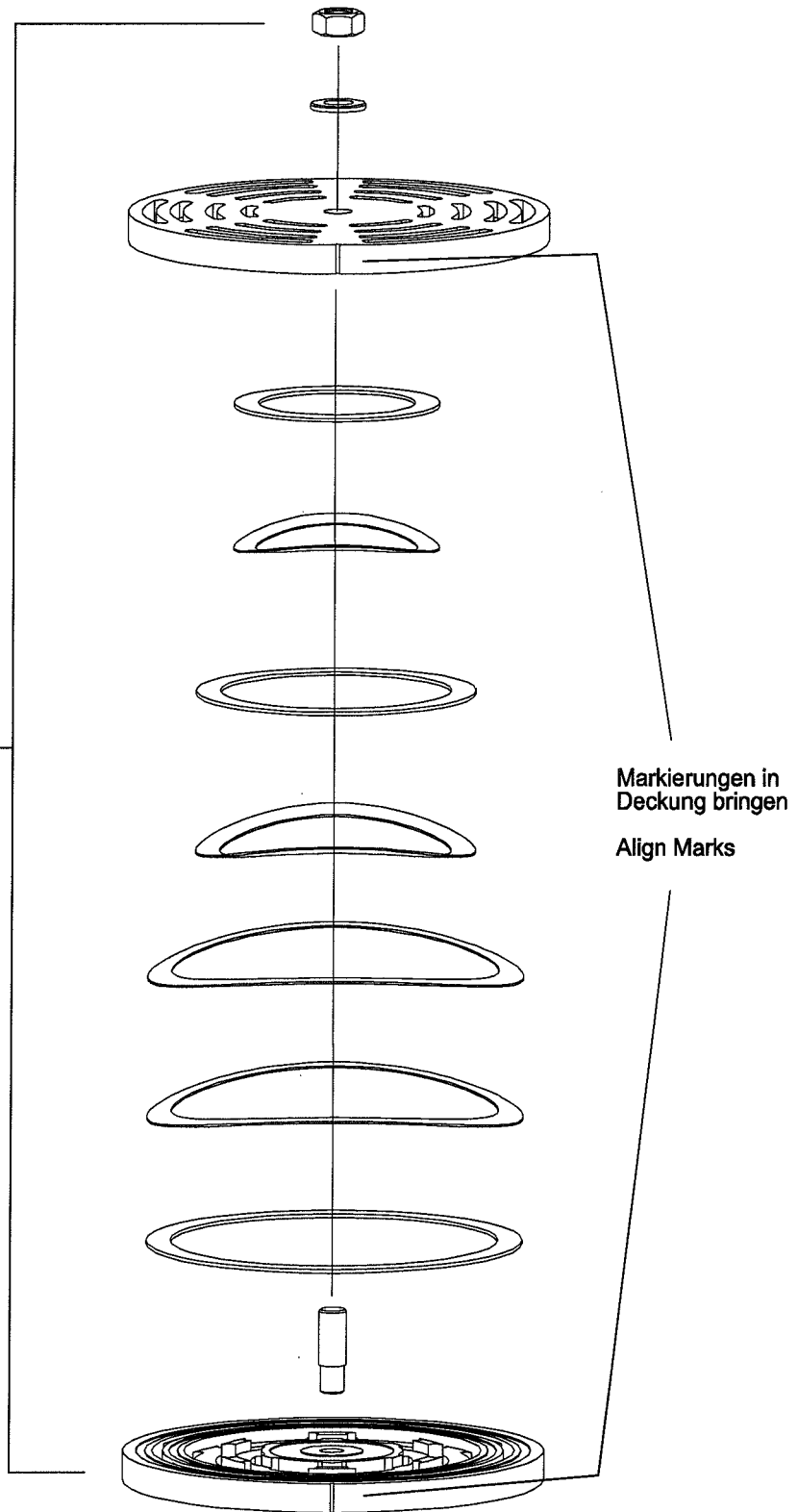
Kompressor: L&W 570 E  
Baugruppe: Komplettkolben-Stufe 4  
Assembly: Piston 4th Stage

Detail A ( 5 : 1 )

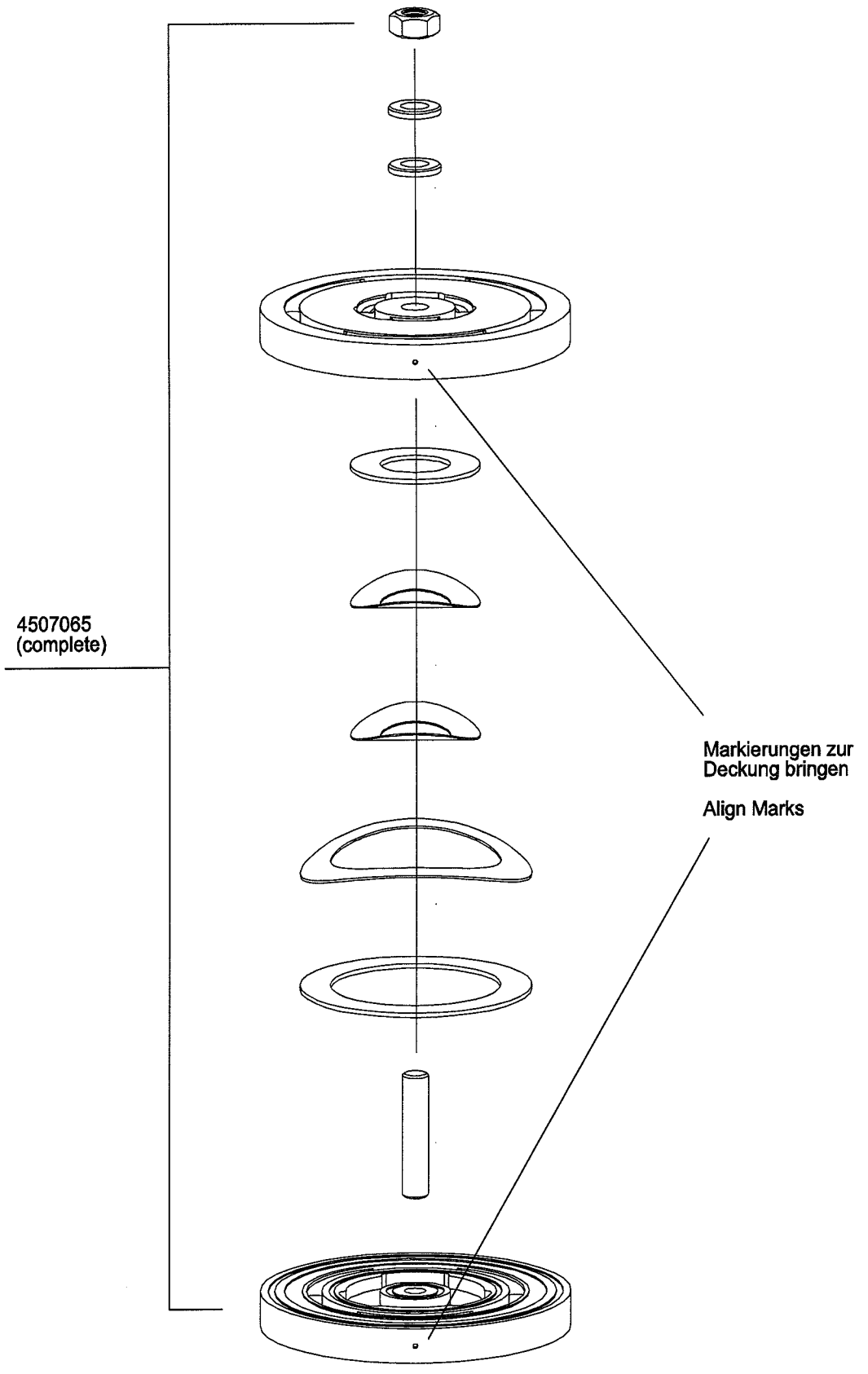


Kompressor: L&W 570 E  
Baugruppe: Ventil-Stufe 1  
Assembly: Valve 1st Stage

000369  
(complete)

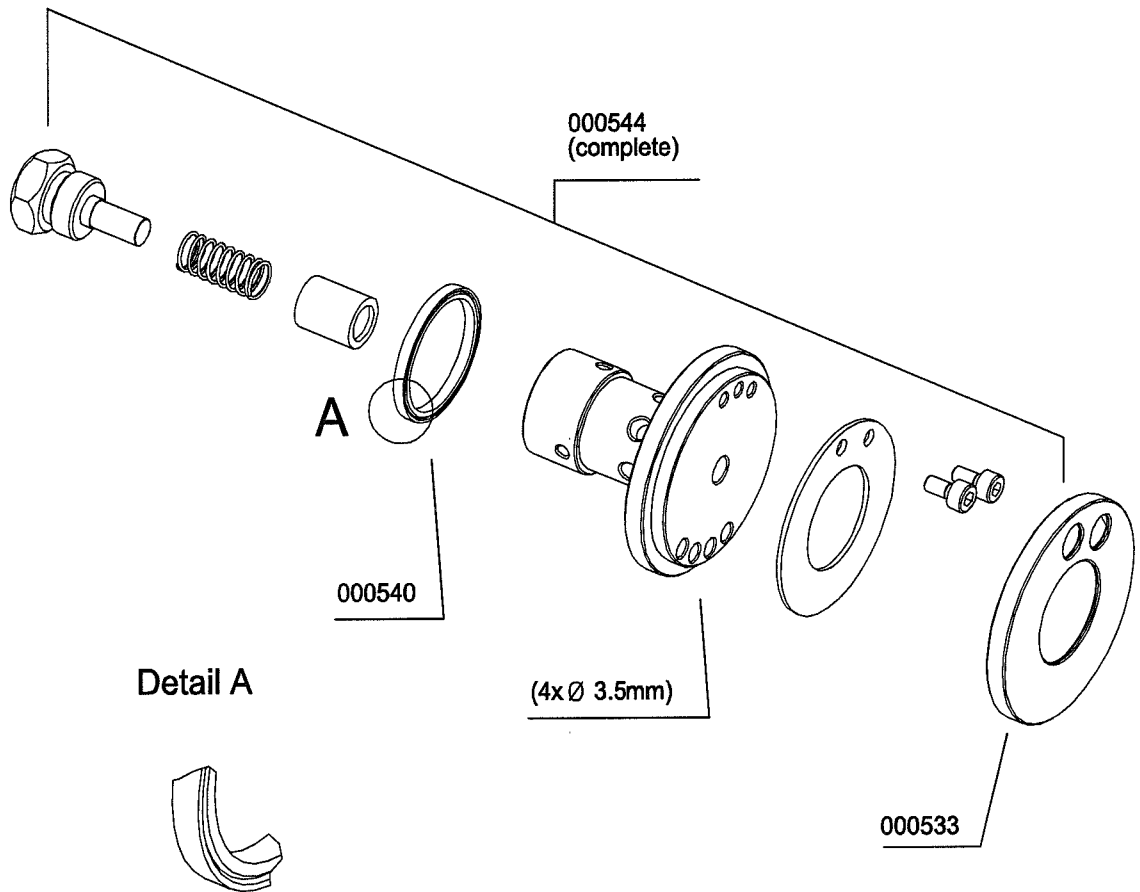


Kompressor: L&W 570 E  
Baugruppe: Ventil-Stufe 2  
Assembly: Valve 2nd Stage

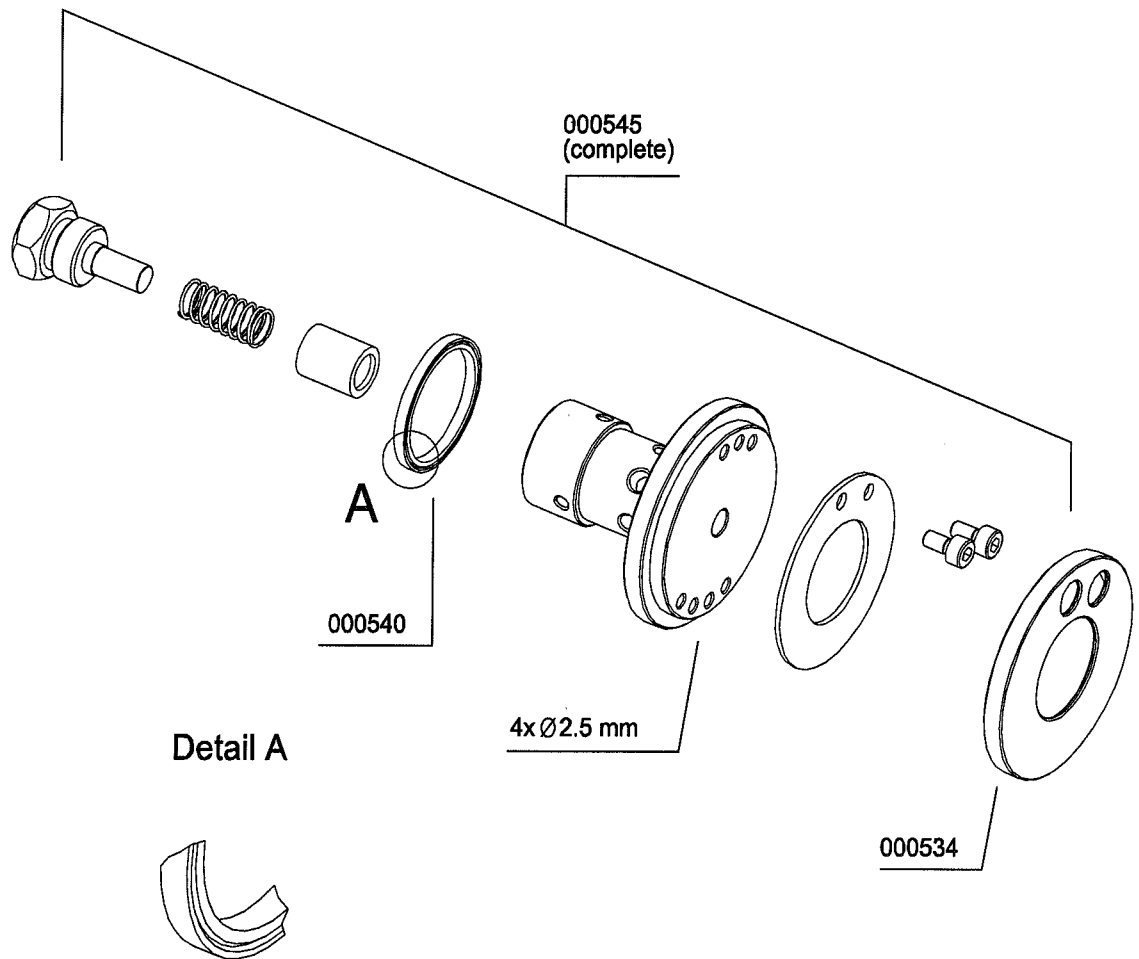




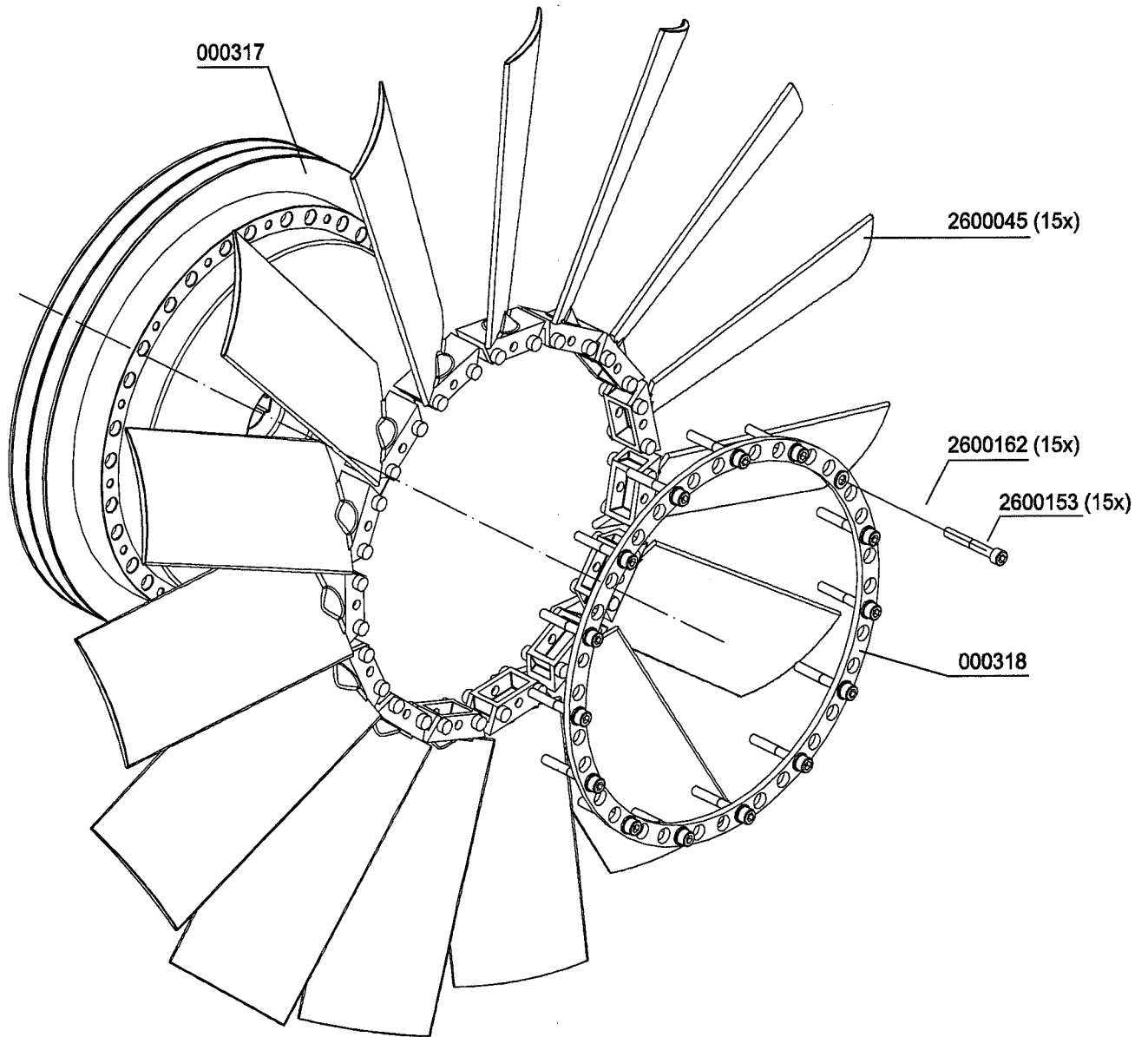
Kompressor: L&W 570 E  
Baugruppe: Ventil Stufe 3  
Assembly: Valve 3rd Stage



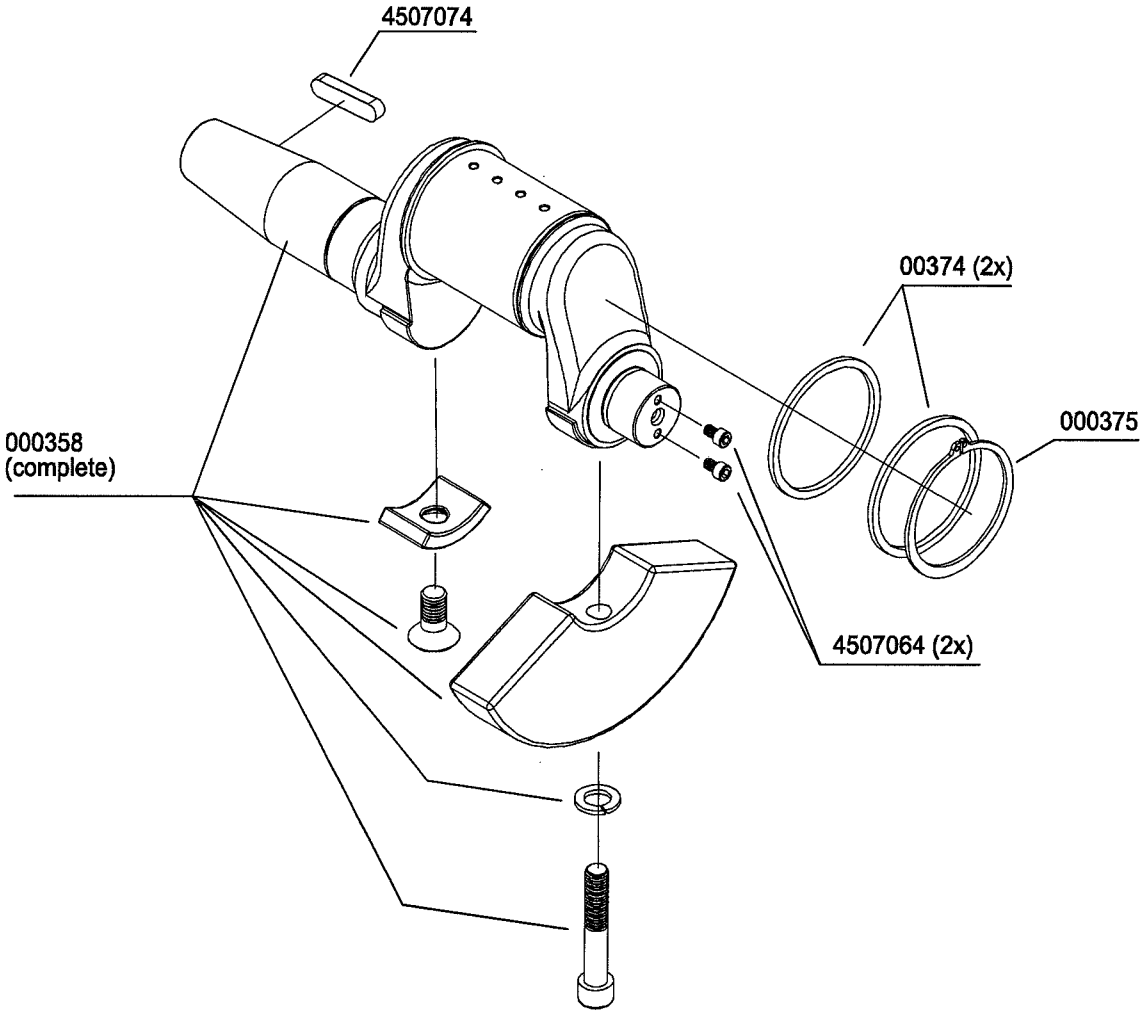
Kompressor: L&W 570 E  
Baugruppe: Ventil Stufe 4  
Assembly: Valve 4th Stage



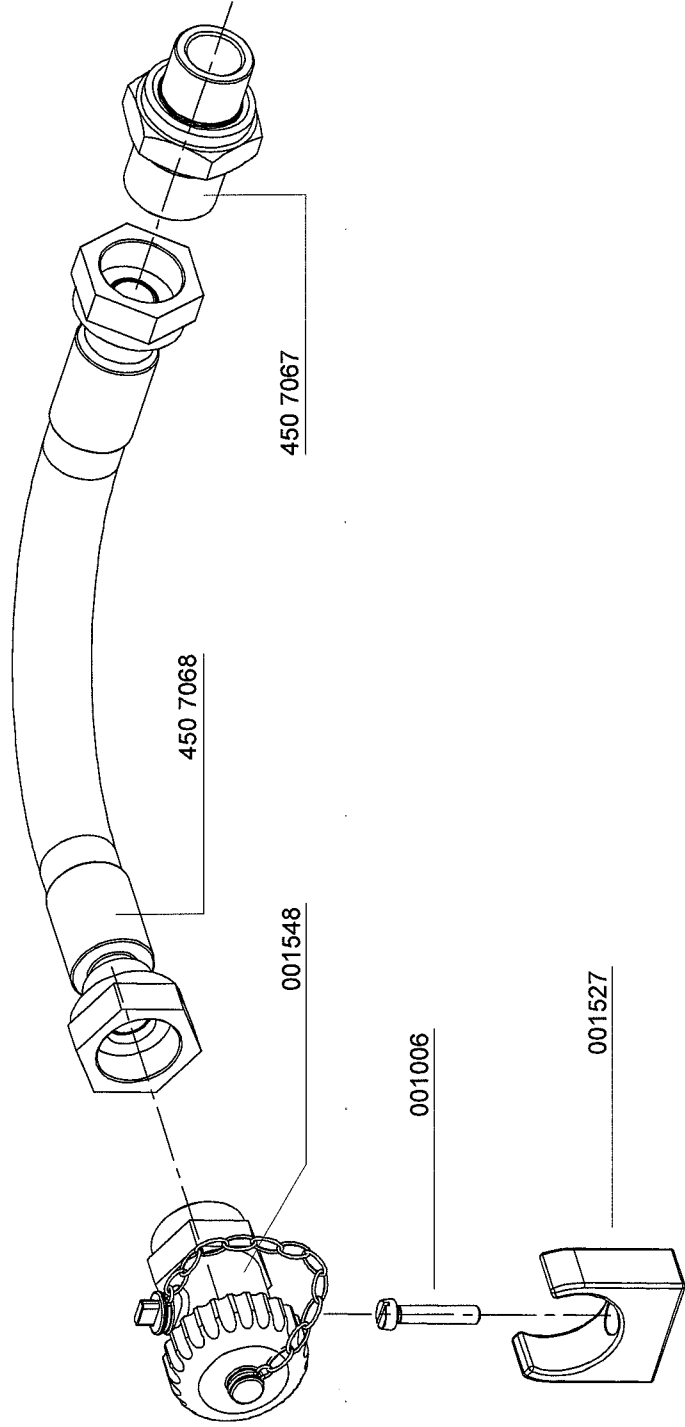
Kompressor: L&W 570 E  
Baugruppe: Lüfterrad  
Assembly: Flywheel & Cooling Fan



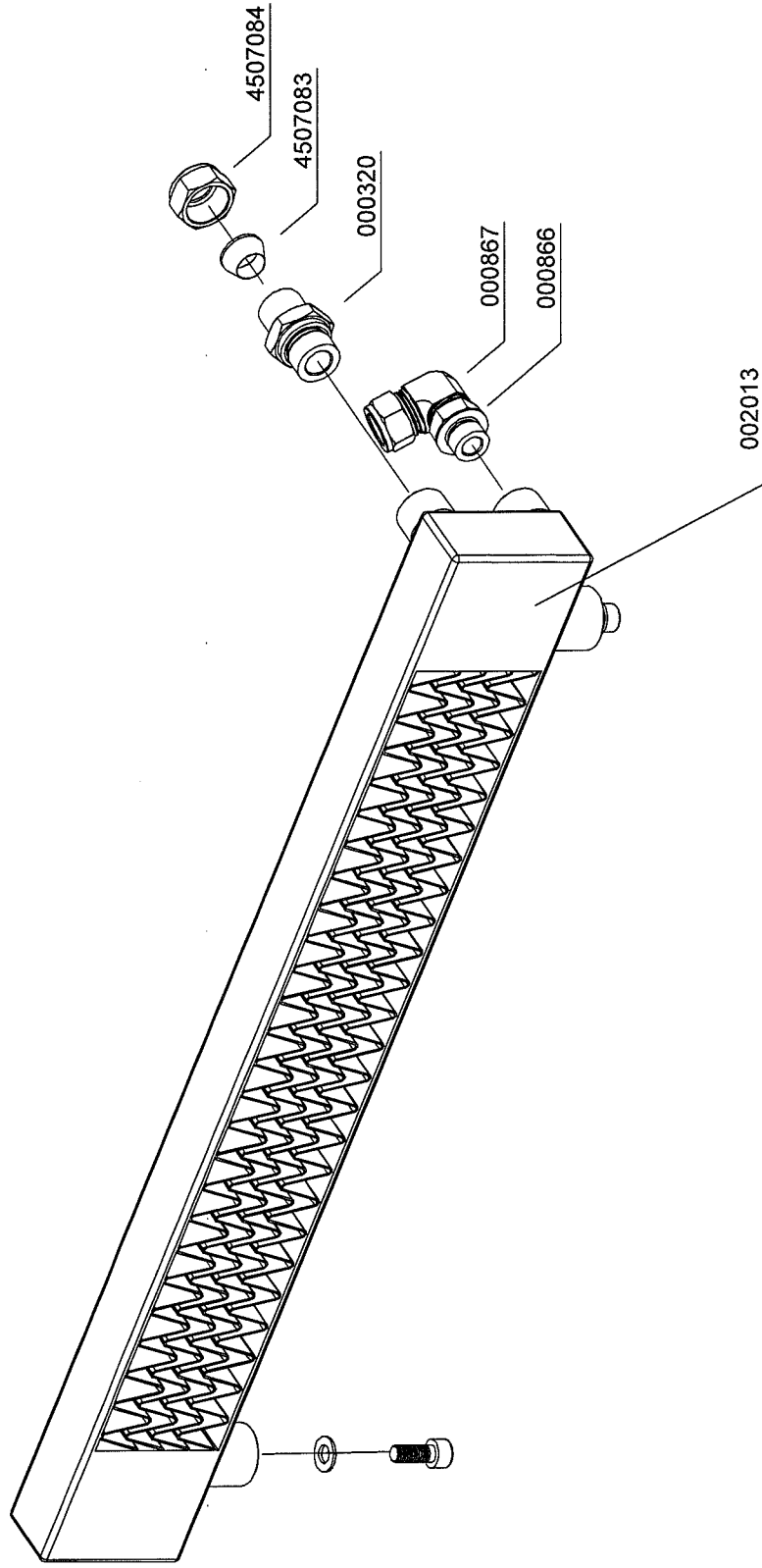
Kompressor: L&W 570 E  
Baugruppe: Kurbelwelle  
Assembly: Crankshaft



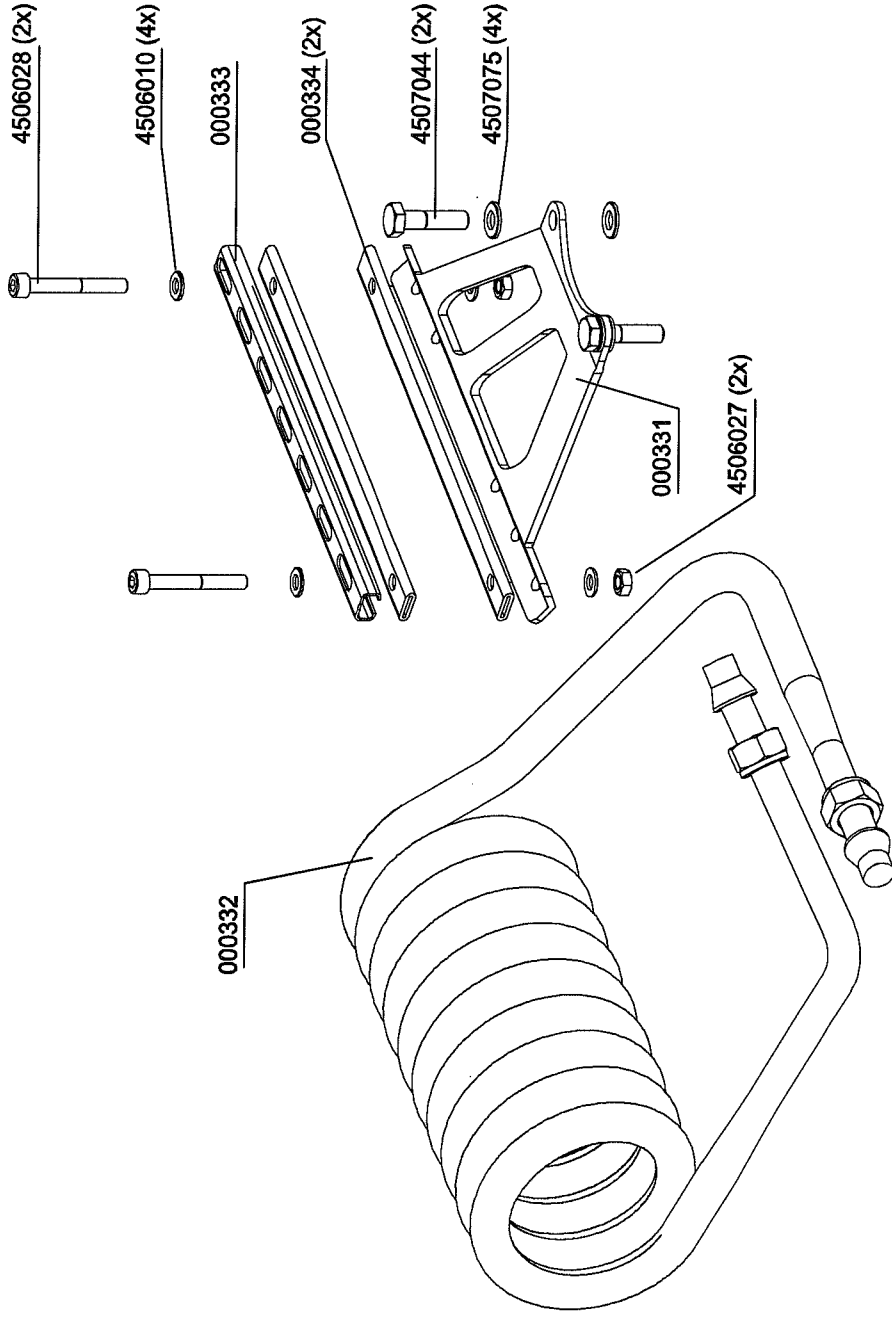
Kompressor: L&W 570 E  
Baugruppe: Öl-Ablausschlauch  
Assembly: Oil Drain Hose



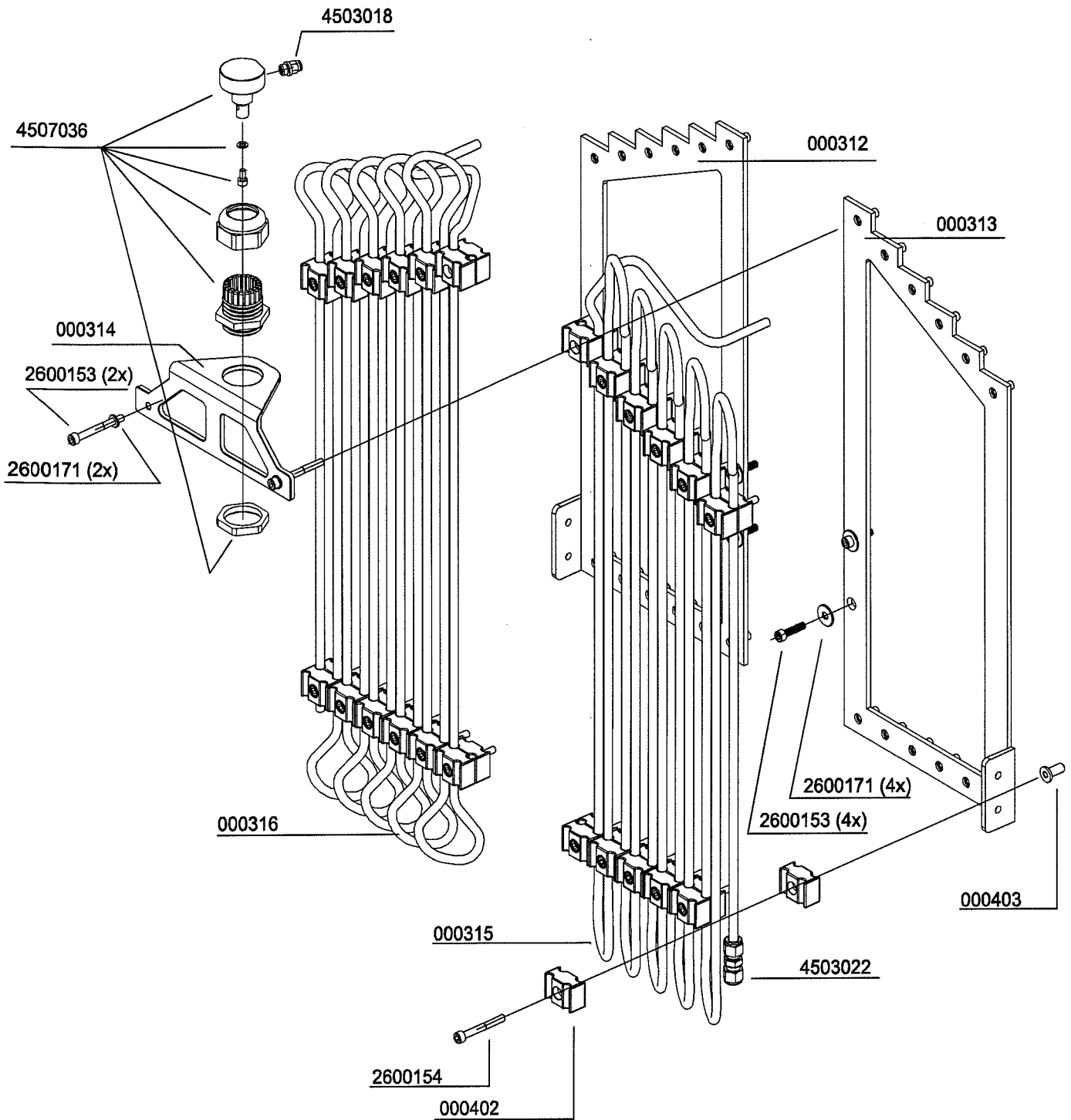
Kühler 1. Stufe  
Cooler 1st Stage



Kompressor: L&W 570 E  
Baugruppe: Kühlwendel-Stufe 2  
Assembly: Cooling Pipe 2nd Stage

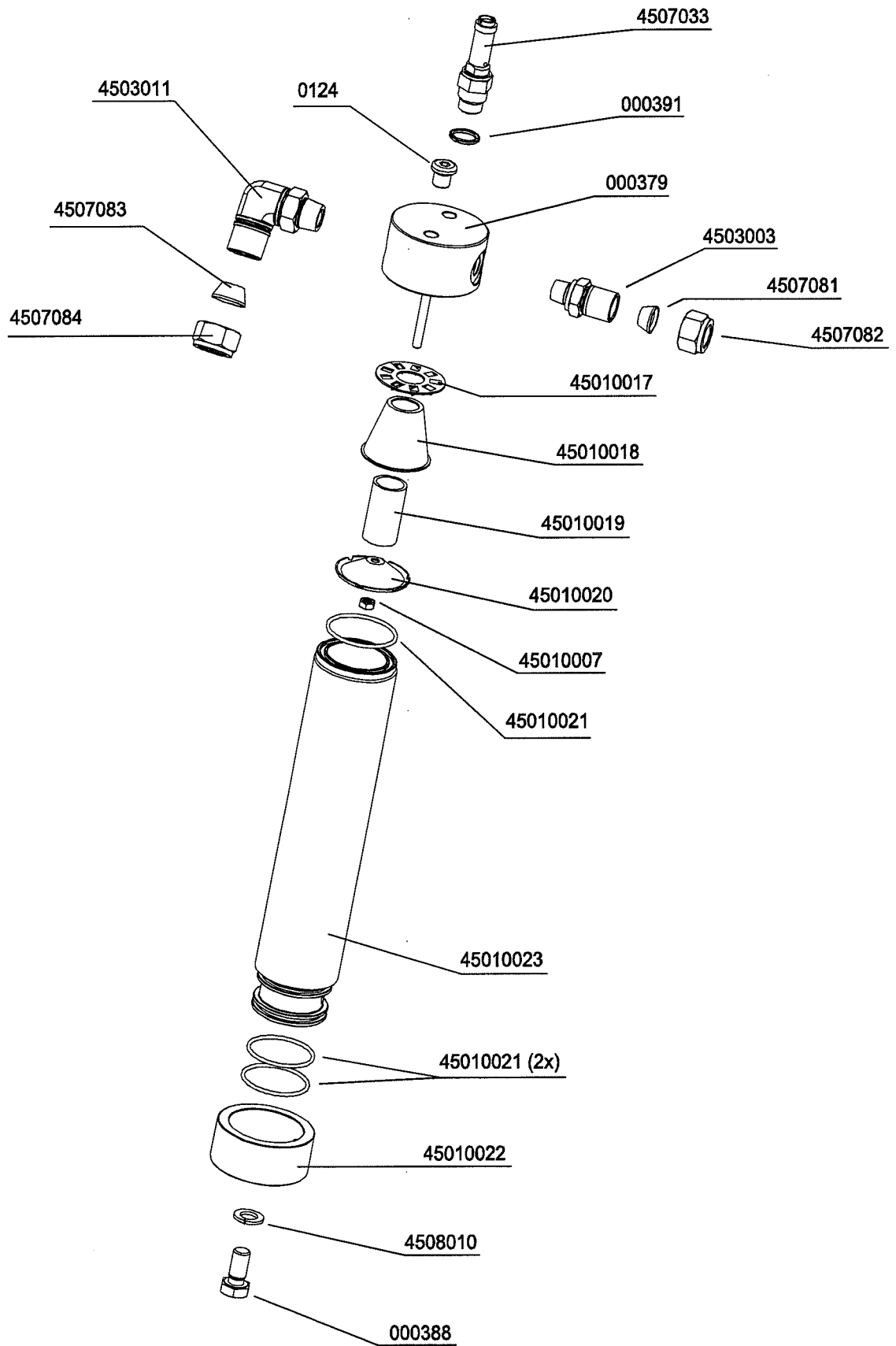


Kompressor: L&W 570 E  
Baugruppe: Kühler Stufe 3 & 4  
Assembly: Cooling Pipes 3rd & 4th Stage

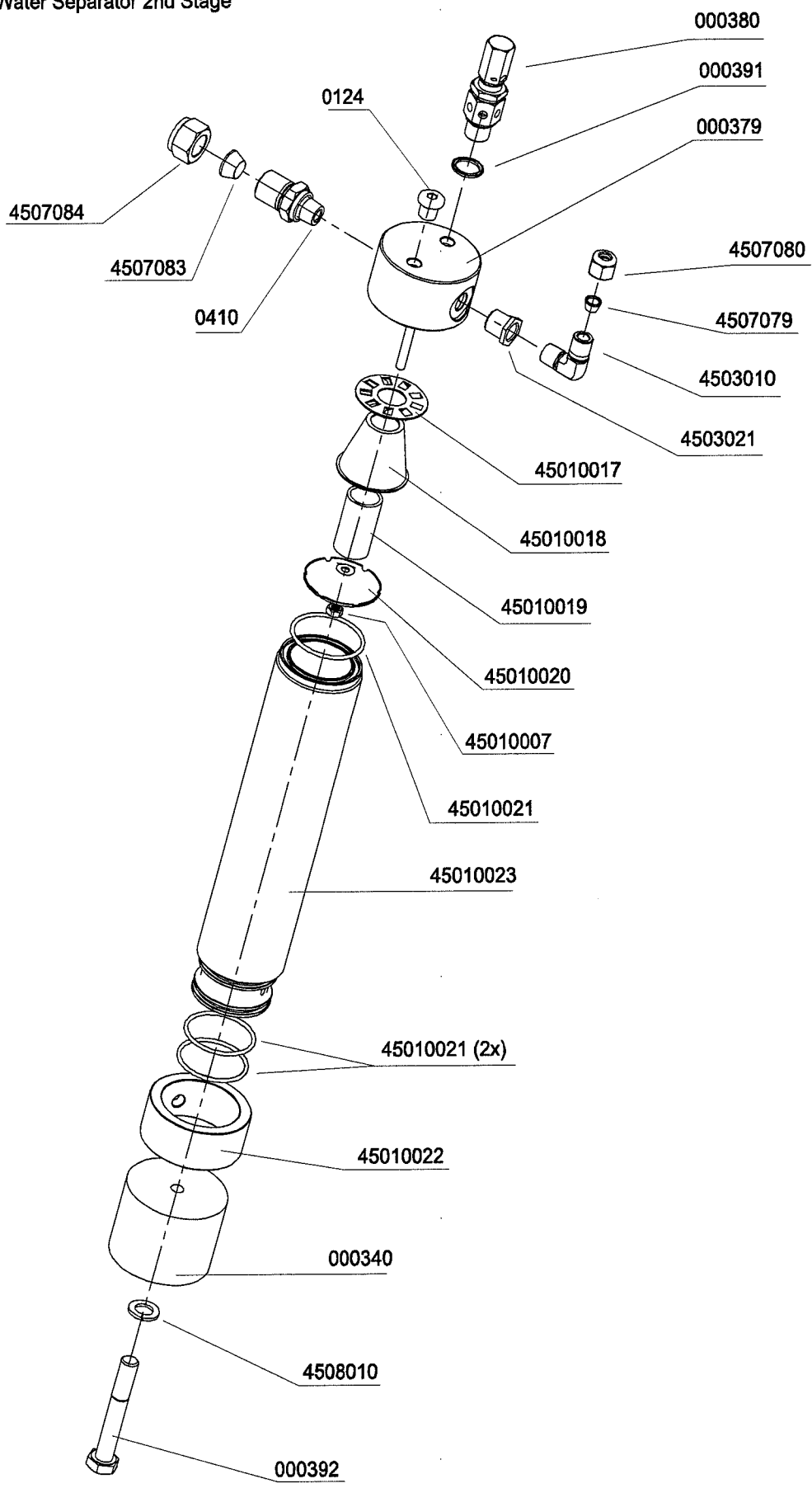




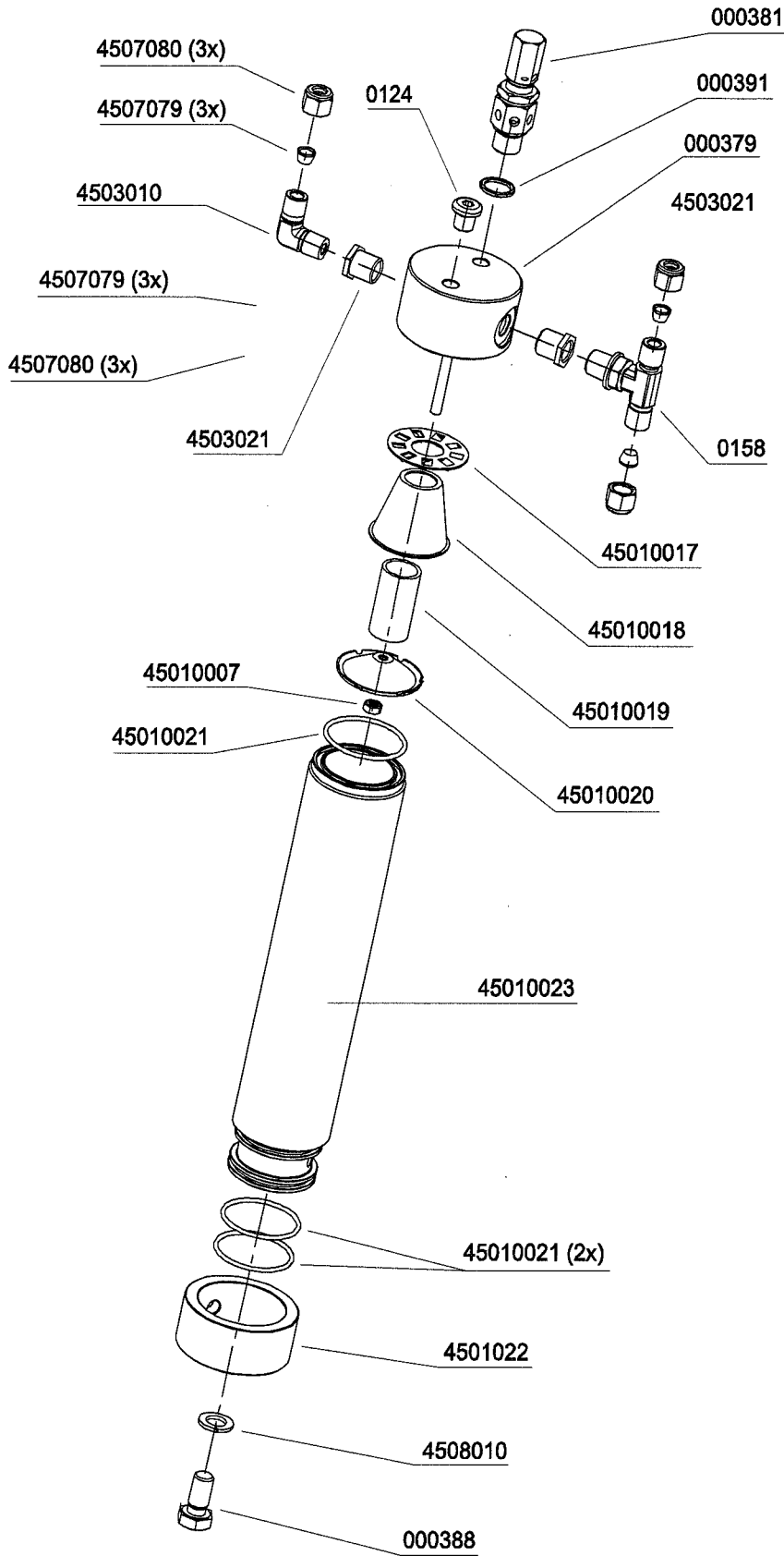
Kompressor: L&W 570 E  
Baugruppe: Wasserabscheider Stufe 1  
Assembly: Water Separator 1st Stage



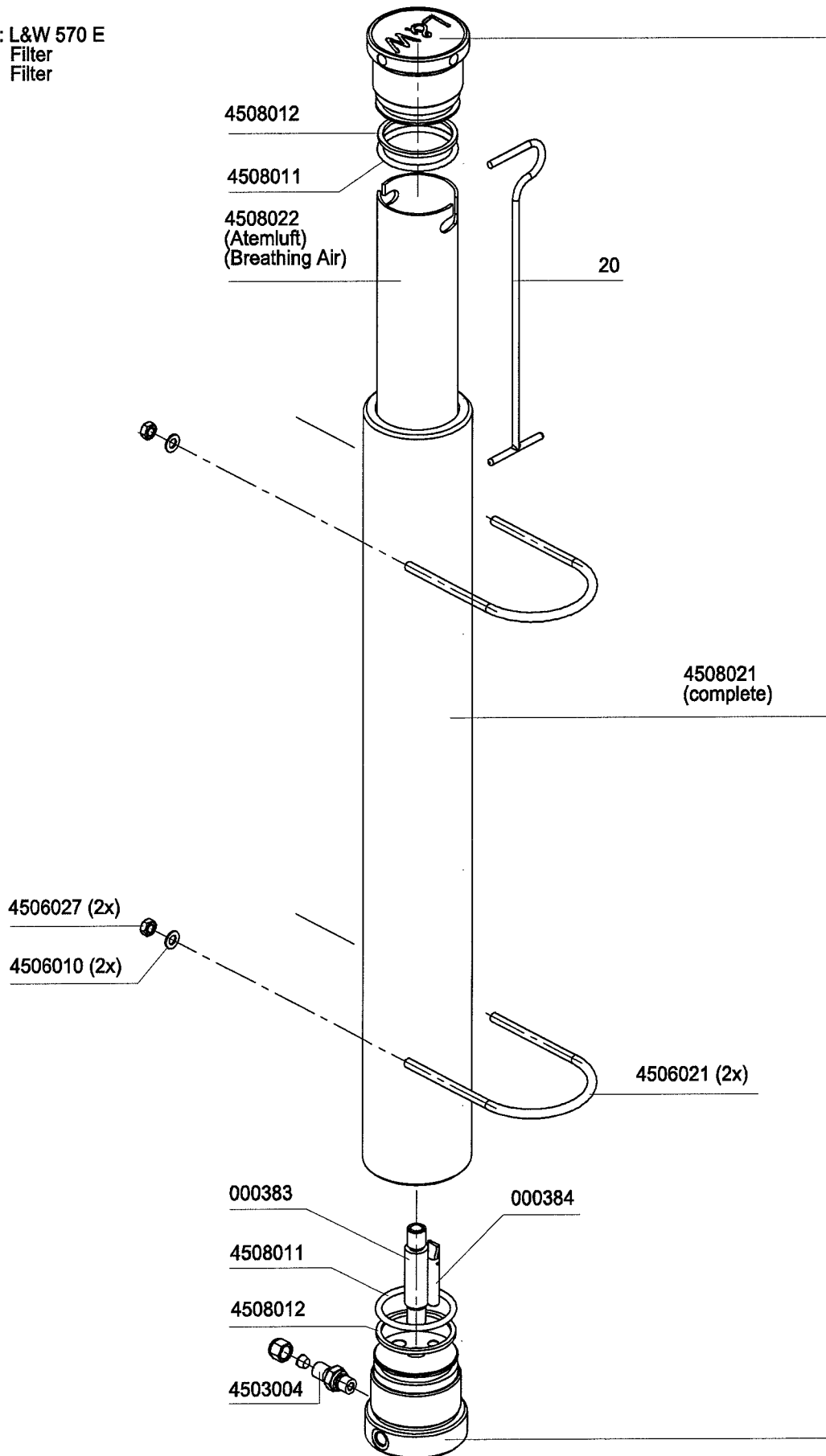
Kompressor: L&W 570 E  
Baugruppe: Wasserabscheider Stufe 2  
Assembly: Water Separator 2nd Stage



Kompressor: L&W 570 E  
Baugruppe: Wasserabscheider Stufe 3  
Assembly: Water Separator 3rd Stage

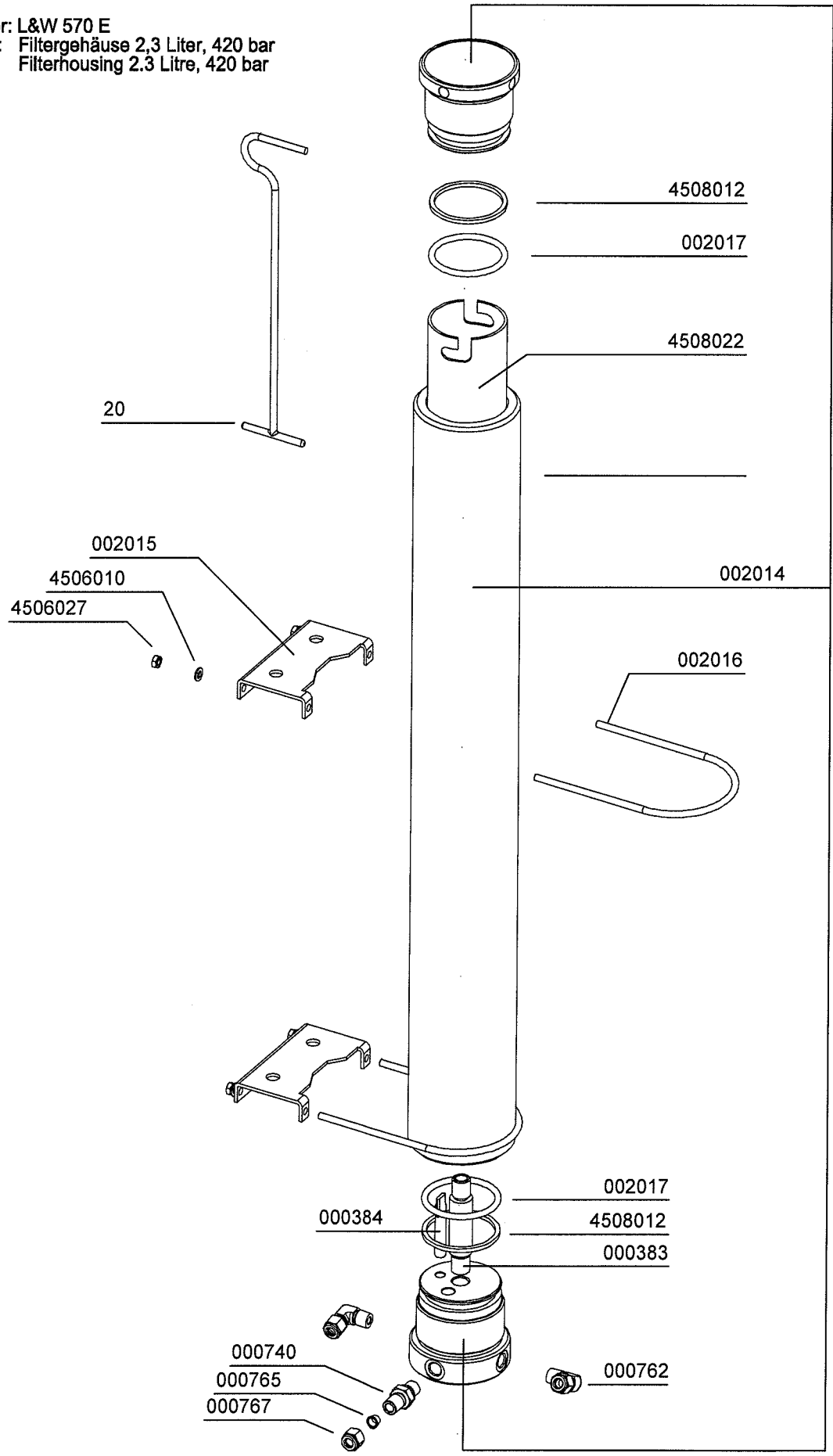


Kompressor: L&W 570 E  
Baugruppe: Filter  
Assembly: Filter



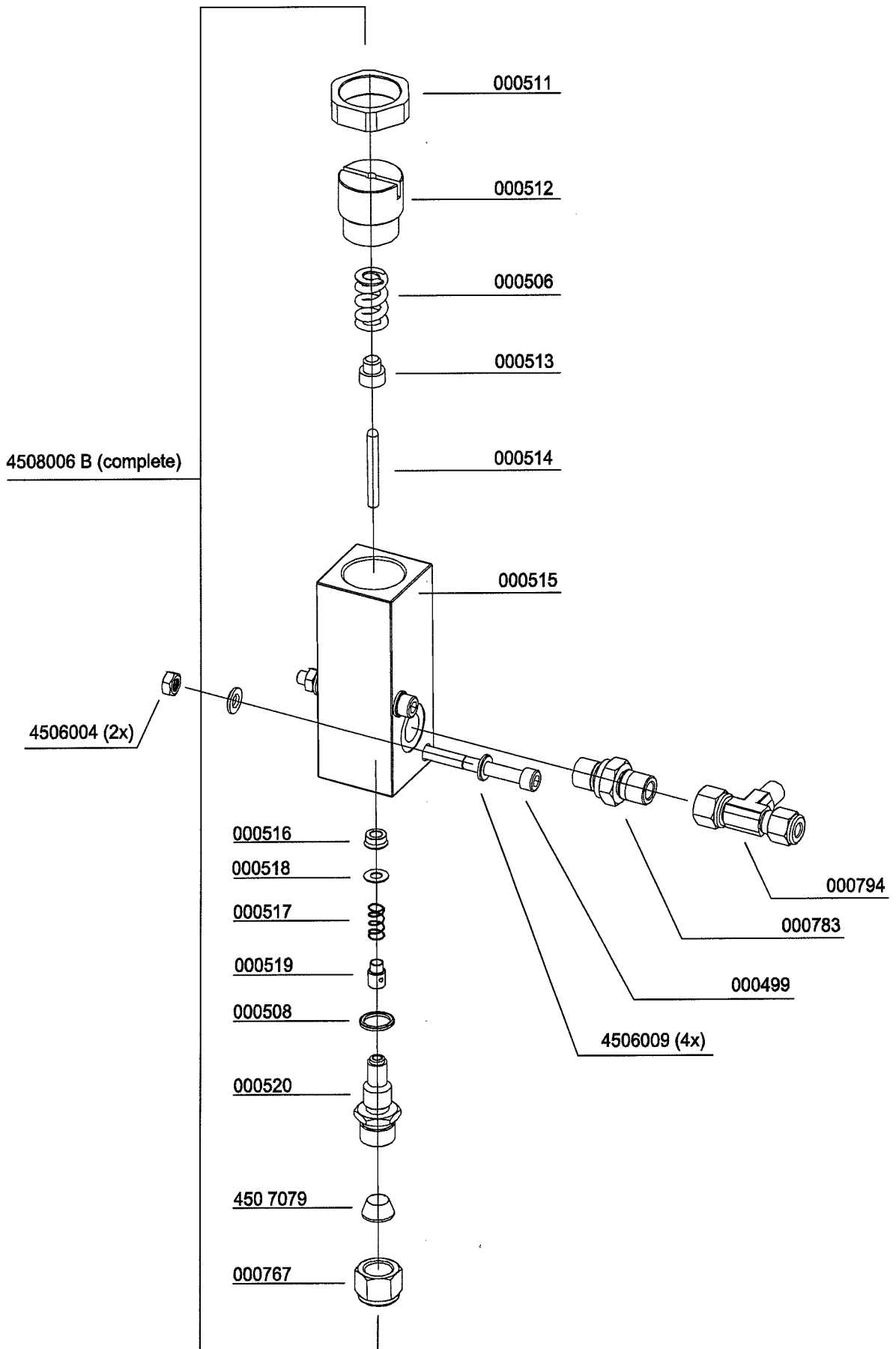
$P_{\max}$ : 350 bar

Kompressor: L&W 570 E  
Baugruppe: Filtergehäuse 2,3 Liter, 420 bar  
Assembly: Filterhousing 2.3 Litre, 420 bar

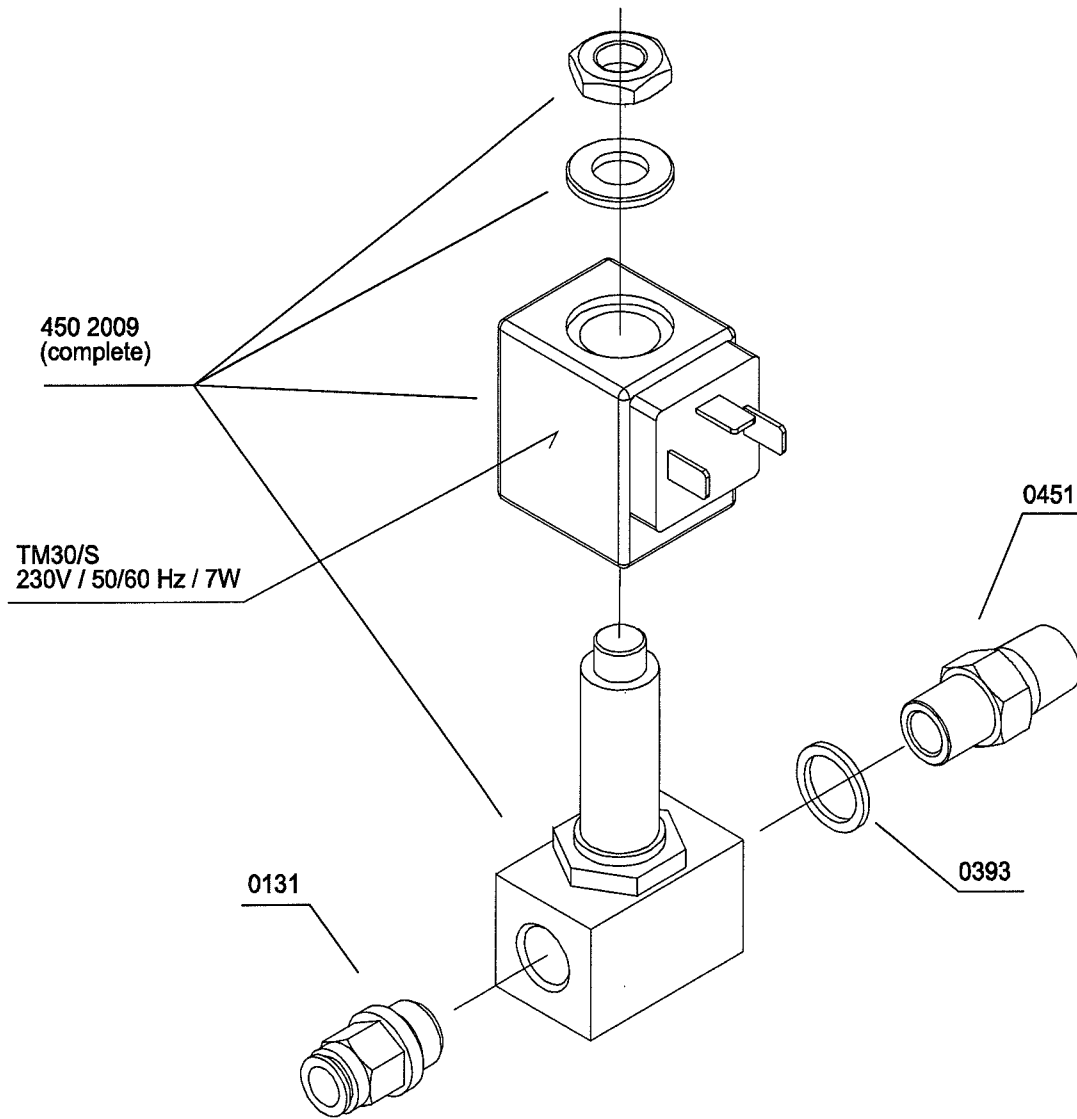


**P<sub>max</sub>: 420 bar**

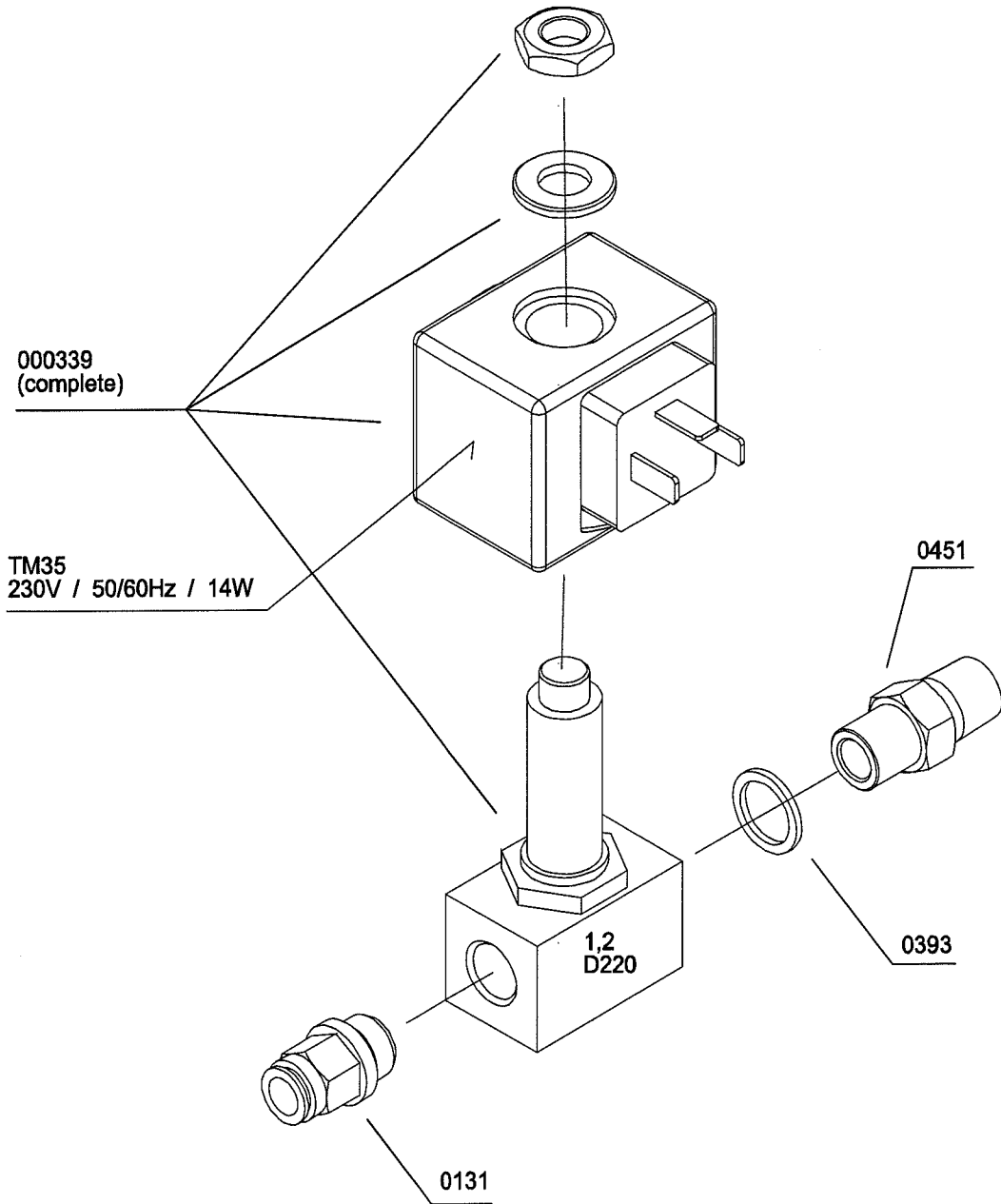
Kompressor: L&W 570 E  
Baugruppe: Druckhalte-/Rückschlagventil  
Assembly: Pressure Maintaining / Non-Return Valve



Kompressor: L&W 570 E  
Baugruppe: Magnetventil  
Assembly: Solenoid

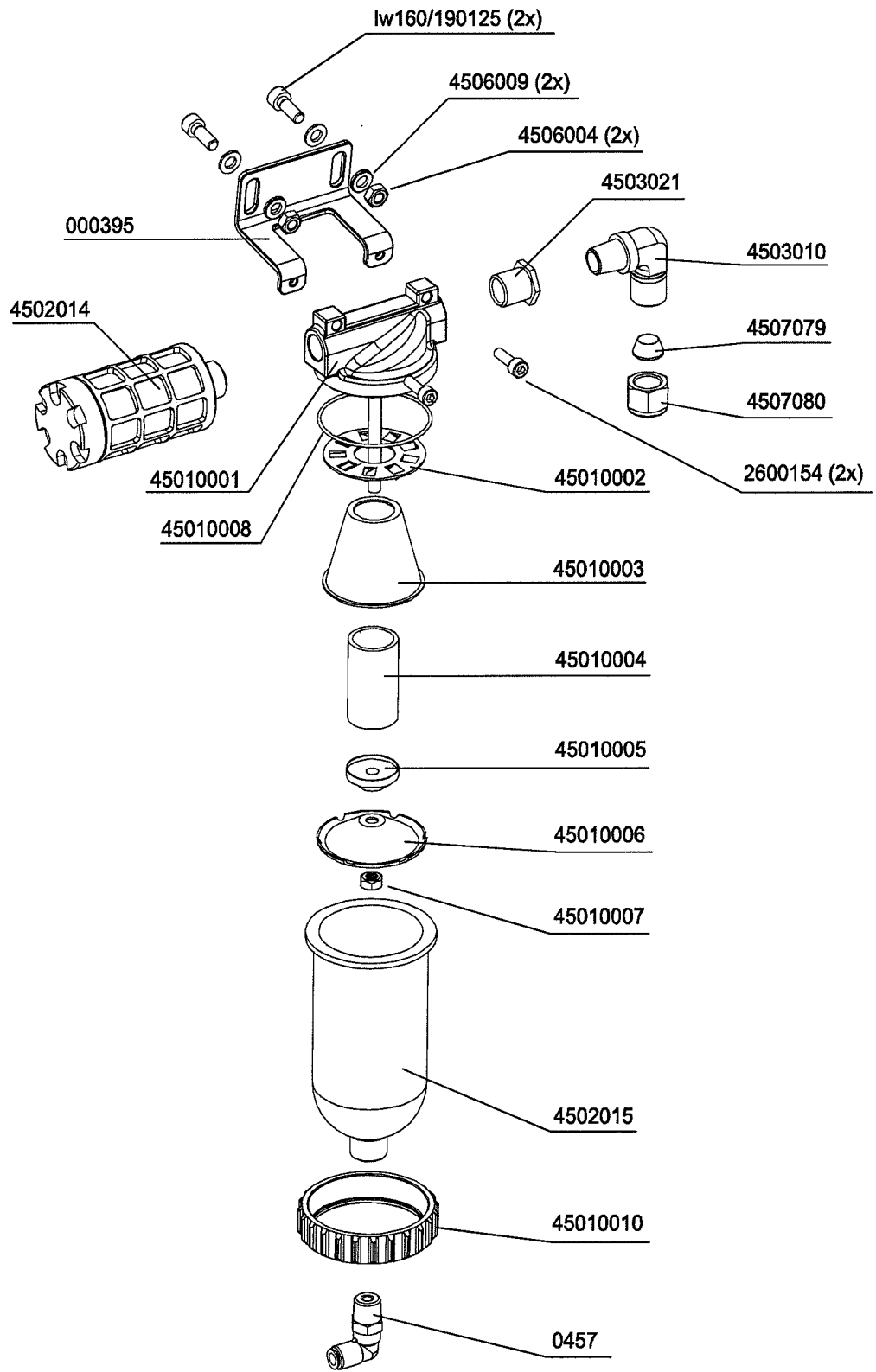


Kompressor: L&W 570 E  
Baugruppe: Magnetventil Stufe  
Assembly: Solenoid

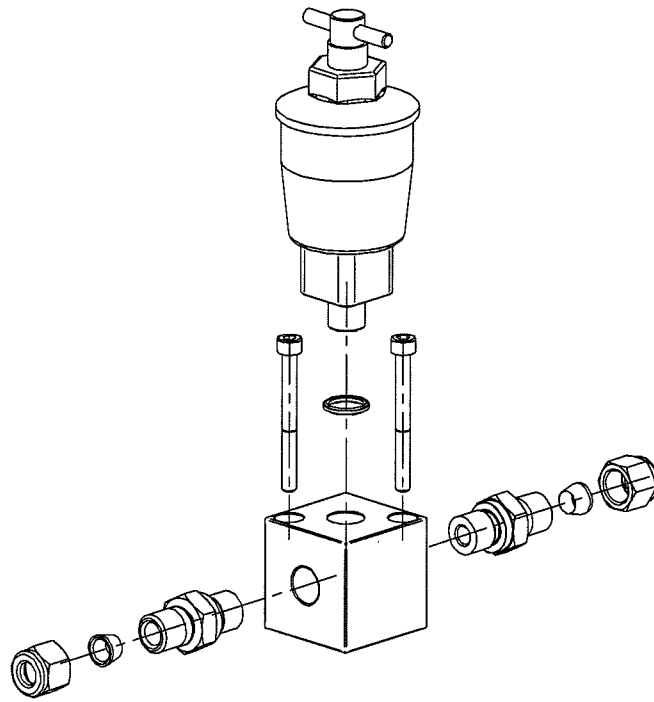




Kompressor: L&W 570 E  
Baugruppe: Ölabscheider (Endstufe)  
Assembly: Oil Separator (Final Stage)



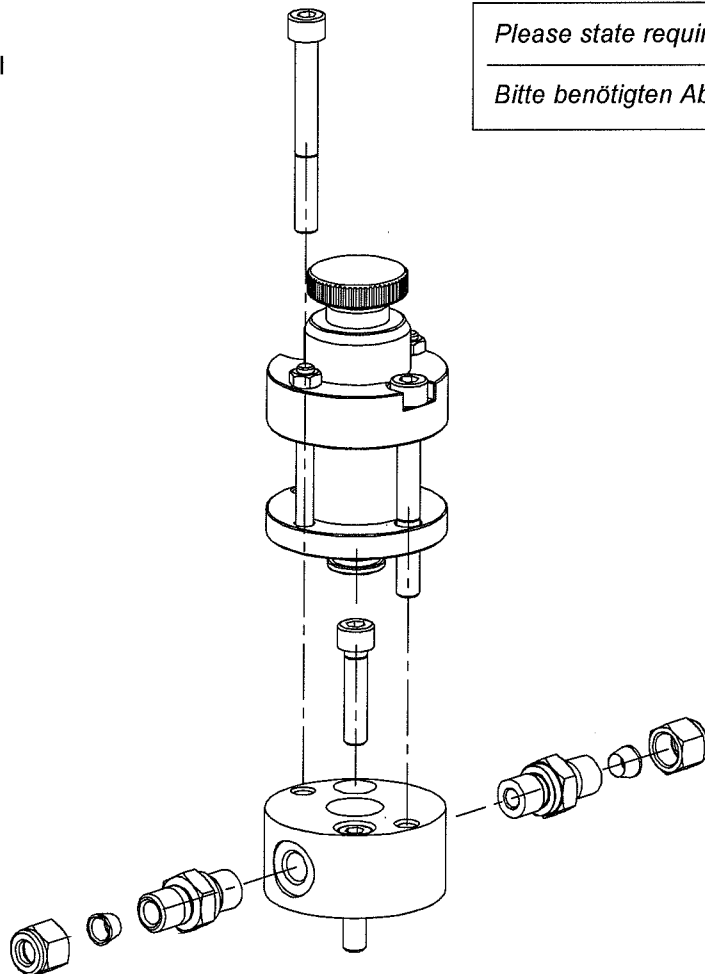
Kompressor: L&W 570 E  
Baugruppe: Sicherheitsventil  
Assembly: Safety-Valve



Kompressor: L&W 570 E  
Baugruppe: Sicherheitsventil  
Assembly: Safety Valve

*Please state required relief pressure*

*Bitte benötigten Abblãdruck angeben*



Kompressor: L&W 570 E  
Baugruppe: E-Motor  
Assembly: E-Motor

