

---

INSTRUCTION MANUAL

**LW 160 E**

**&**

**LW 190 B**

---

Lenhardt & Wagner GmbH  
Im Taubengang 4  
D-64653 Lorsch  
Germany

Tel.: + 49 62 51 – 10 74 0  
Fax: + 49 62 51 – 10 74 14  
E-mail: [info@lenhardt-wagner.de](mailto:info@lenhardt-wagner.de)

---

---

## **Technical Data**

Type of compressor	<b>LW 160 E / LW 190 B</b>
Capacity	LW 160 E: 170 l/min - 5.69 cfm LW 190 B: 190 l/min - 6.76 cfm
Max. pressure	225 / 330 bar - 3200 / 4700 psi
Compressor rpm	LW 160 E: 1530 min <sup>-1</sup> LW 190 B: 1800 min <sup>-1</sup>
Number of cylinders	3
∅ Cylinder bores	72 / 28 / 13 mm
Stroke	39 mm
Motor	LW 160 E: 4 kW; 380 V; 50 Hz
Engine	LW 190 B: Honda GX 270; 4-stroke; 6 kW
Oil capacity of compressor	0.85 litre
Dimensions	length: 760 mm height: 570 mm width: 430 mm weight: LW 160 E: 87 Kg LW 190 B: 90.6 Kg
Manufacturer	<b>Lenhardt &amp; Wagner GmbH</b> Im Taubenfang 4 64653 Lorsch / Germany

E-mail: [info@lenhardt-wagner.de](mailto:info@lenhardt-wagner.de)

---

## General Notice

This operation manual contains the operating and maintenance procedures necessary to safely run your L&W compressor. We strongly recommend that you 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
- ◆ Do proper maintenance of the filtration system
- ◆ Do regular drainage of the condensate
- ◆ Avoid contaminated air to reach the air intake
- ◆ Do not exceed maximum rpm

## Description of Function

The L&W compressor is a 3-stage compressor designed to fill scuba tanks with compressed air. The air-intake is via filter. The air then enters the 1<sup>st</sup> stage together with a tiny quantity of oil-vapour and is compressed to 9 bar. From there it passes a cooling pipe to the 2<sup>nd</sup> stage, where it is compressed to 65 bar. After that the water and oil are removed in a (mechanical-expansional) separator and the air is cooled in the next cooling-pipe before entering stage 3. There it is compressed to the final pressure of 330 bar and then led to the next filter, where again oil and water are separated through expansion before the air passes through an activated carbon filter. The filter exit-port is connected to a high-pressure hose, which ends with a pressure-gauge and a tank-connection (filling-valve assembly).

Each stage has its own safety valve, set and sealed by the manufacturer. The final one is adjusted to either 225 or 330 bar, depending on specification.

---

## Safety Precautions

- ◆ Read the operation manuals of your compressor and its drive engine carefully
- ◆ Allow only qualified personell 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 and exhaust fumes
- ◆ All work on compressor must be carred out while compressor is plugged off and depressurized
- ◆ Check regulary for leaks by brushing all fittings and couplings with a soup solution
- ◆ Never weld high-pressure tubing
- ◆ Filling-hoses must be in perfect condition; special attention should be paid to the connecting fittings
- ◆ On units with electric motor (LW 160 E) disconnect the power-cable prior to any work
- ◆ Make sure no person is within one meter of the drain-hoses before draining the condensate
- ◆ Do not touch the exhaust (LW 190 B) while the engine is running and within ten minutes after shut-down
- ◆ The operator should wear ear protection if exposed to the noise of the running compressor for extended periods of time

## Installation

The compressor should be connected to an 16 Ampere plug.

**NOTE:** Check direction of rotation immediately after the first start. If the direction of rotation is wrong the pistons may cease tue to lack of lubrication! Furthermore the unit would not be cooled properly. When facing the front of the compressor (water separator side), the direction of rotation should be clockwise (check arrows on compressor block and cover). Don't place compressor closer than 0.5 m to any walls and ensure good ventilation.

<b>NOTE: Pure air intake is very important!</b>
---

---

## Filling process

Fill only air tanks which are:  
suitable for final pressure and hydro static tested (check last testing date).

### - LW 160 E:

- ◆ Close filling valve
- ◆ Close drain valves of water separators
- ◆ Start compressor by switch
- ◆ Check direction of rotation
- ◆ Run compressor to max. pressure and check final safety valve
- ◆ Connect tank to compressor. Filling valve and tank are still closed
- ◆ Slowly open filling valve
- ◆ Carefully open tank valve
- ◆ Fill tank to desired pressure
- ◆ First close tank valve
- ◆ Close filling valve
- ◆ Release pressure between tank and filling valve by rotating the vent screw  
A hissing sound can be heard
- ◆ Disconnect tank from compressor
- ◆ Turn off compressor by switch

### - LW 190 B:

- ◆ Close filling valve
  - ◆ Open drain valves of water separators
  - ◆ Open fuel tank valve on Honda engine
  - ◆ Adjust choke and throttle on Honda engine
  - ◆ Turn switch to position **1** on Honda engine
  - ◆ Start Honda engine
  - ◆ Close drain valves of water separators
  - ◆ Run compressor to max. pressure and check final safety valve
  - ◆ Connect tank to compressor. Filling valve and tank are still closed
  - ◆ Slowly open filling valve
  - ◆ Carefully open tank valve
  - ◆ Fill tank to desired pressure
  - ◆ First close tank valve
  - ◆ Close filling valve
  - ◆ Release pressure between tank and filling valve by rotating the vent screw  
A hissing sound can be heard
  - ◆ Disconnect tank from compressor
  - ◆ Turn off compressor by switch on Honda engine (position **0**)
-

---

## Intake filter

A micro filter cartridge is used as an air intake filter. The filter cartridge has to be checked regularly and should be replaced if necessary - at least once a year.

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

## Cylinder heads and valves

Inlet and outlet valves of the 1<sup>st</sup> stage are located under the 1<sup>st</sup> stage valve cover. The inlet valve opens on the down-stroke, the outlet one on the up-stroke. To reach the 2<sup>nd</sup> and 3<sup>rd</sup> stage valves it is necessary to remove the cylinder heads first. Then the valves can be pulled out of their seat and held in a bench-vice with the alloy valve holder (table D) for further dismantling. The valves should be replaced after 1000 working hours due to normal wear and tear.

## Lubrication

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

**NOTE:** The oil level should always be above the red oil level marking (located on the left hand side of the oil filling plug).

## Starting the compressor for the first time

- ◆ Place compressor in a distance of at least 50 cm to any walls (air temperature max. 40 degree centigrade)
- ◆ Make sure your location is properly vented due to exhaust gases (LW 190 B)
- ◆ Check oil level on Honda engine (LW 190 B)
- ◆ Check fuel level on Honda engine (LW 190 B)
- ◆ Check connections
- ◆ Check oil level on compressor
- ◆ Check if air filter cartridge is in place
- ◆ Make sure all filling valves are closed
- ◆ Start compressor
- ◆ Run compressor to max. pressure
- ◆ Check if safety valve opens at max. pressure
- ◆ Check compressor unit for air leaks
- ◆ Check drain valves of water separators
- ◆ Turn off compressor
- ◆ 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.

The valves are adjusted to:

**1<sup>st</sup> Stage: 15 bar**

**2<sup>nd</sup> Stage: 72 bar**

**3<sup>rd</sup> Stage: final pressure**

If a safety valve blows it indicates problems with either inlet or outlet valve of the next stage.

<b>NOTE: A faulty safety valve should always be replaced!</b>
---

## Removing the compressor cover

The compressor cover is held in place by three allen screws (M8). One is placed on top of it, two are mounted to the frame. In order to reach them, tilt the unit and loose screws by 6 mm allen key.

## Pressure maintaining valve

A pressure maintaining valve is fitted next to the water separator / filter housing. It is adjusted to provide a pressure of at least 160 bar to the filling hose, optimising the effectiveness of the filter to ensure the best possible air quality.

## Changing the mole carbon cartridge

The mole carbon cartridge lasts for about 20 (LW 160 E) / 17 hours (LW 190 B) at an average humidity and at 25 degree centigrate. At 30 degree centigrate plus and high humidity, its life is reduced to 11 (10) hours. The cartridges are packed airtight. We recommend that they should be opened just before they are fitted to the compressor, as they could be saturated with moisture just being exposed to high humidity. To change the filter cartridge stop the compressor and release all the pressure by opening the drain and filling valves. Once the unit is free of pressure the filter housing cap can be unscrewed using the filter tool delivered with the compressor.

---

If pressure remains in the housing, it is almost impossible to open the filter housing cap. Pull out used filter cartridge and replaced it by a new one. Make sure O-ring is in place and in useable condition. Fit spring on top of filter. Screw cap on hand tight. Check filter housing for air leaks during the next filling process.

## **Conservation of compressor**

If the compressor will not be used for a long period of time the following steps should be taken:

- ◆ Run the compressor for about 10 minutes
- ◆ Open filling hose valve and let the compressor run for another five minutes
- ◆ Turn the compressor off
- ◆ Release all pressure and condensate
- ◆ Close the filling hose valve
- ◆ Fill up fuel tank to top level to avoid corrosion (LW 190 B)
- ◆ The compressor should be stored in a dry and dust free place

**Before restarting the compressor, the following steps should be carried out:**

- ◆ Change oil (if the compressor was out of use for more than 12 months)
- ◆ Check air intake filter
- ◆ Replace mole carbon filter cartridge
- ◆ Check oil level(s)
- ◆ Check fuel level (LW 190 B)
- ◆ Check condition of filling hose
- ◆ Start compressor
- ◆ Run the compressor with open filling valves for 5 minutes
- ◆ Close filling valve
- ◆ Drive compressor close to 200 bar and control connections for air leaks
- ◆ Release pressure and drain water separators

The compressor is now ready for use.

---



---

## Warranty

<b>Six Months Limited Warranty</b>
------------------------------------

### Important:

For warranty claims this Warranty Registration form must be presented

L&W compressors are warranted against defects in workmanship and materials for a period of six months after purchase by the original owner, provided the compressor is run with synthetic compressor oil - subject to and in accordance with the terms and conditions set forth below:

This warranty does not cover damage to the product resulting from improper useage, improper maintenance, neglect of care, alteration or unauthorised repair. The warranty will automatically become void if proper preventive maintenance procedures have not been followed as outlined in the operations manual for this product.

If a claim under this warranty appears to be necessary, return the product, freight repaid, to your L&W dealer. Include your name, address and warranty registration. The claim will be honoured and the product repaired at no charge and returned in what your L&W dealer determines a reasonable amont of time, provided all necessary parts are in stock. All repairs not covered under the terms of this warranty will be made at the owners expense.

This warranty is non-transferable from the original owner.

The warranty will be extended for the time the product has been in warranty repair. This warranty and operations manual should be kept with the compressor at all times.

---

## Warranty Registration

This warranty only covers compressors which have been bought from an authorised L&W dealer, set up as a complete unit with frame and engine or electric motor.

Compressor Type :

Serial Number :

Engine / Motor Number :

Compressor Options :

Date of Purchase :

Name of L&W Dealer :

Dealer Address :

Name of Buyer :

Signature L&W Dealer

Signature Buyer

---

## **Remarks for the Operator**

The fittings (safety equipment) of the particular pressure vessels have been tested.

The pressure vessels have to be submitted to an inspection of the local conditions at site by a competent expert before being taken into operation.

According to the German pressure vessel regulation § 10 (Druckbehälter - Verordnung) the pressure vessel has to be subjected to re-examination by a competent expert.  
(Valid in the F.R.G.)

## **Additional Remarks**

### **- Water Separator 2<sup>nd</sup> Stage -**

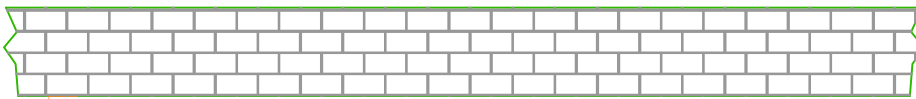
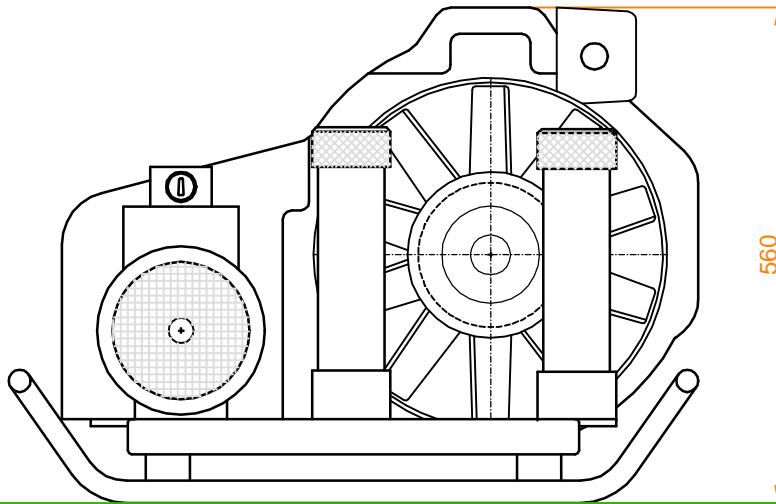
This pressure vessel is released for 50,000 loading cycles at a pressure fluctuation range of 60 bar.

After reaching this figure the pressure vessel has to be renewed.  
It is the duty of the operator to record the actual loading cycles.

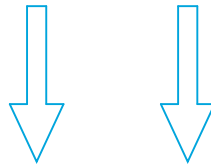
### **- High Pressure Filter Housing -**

This pressure vessel is released for 3,800 / 40,000 loading cycles at a pressure fluctuation range of 330 / 225 bar.

After reaching this figure the pressure vessel has to be renewed.  
It is the duty of the operator to record the actual loading cycles.

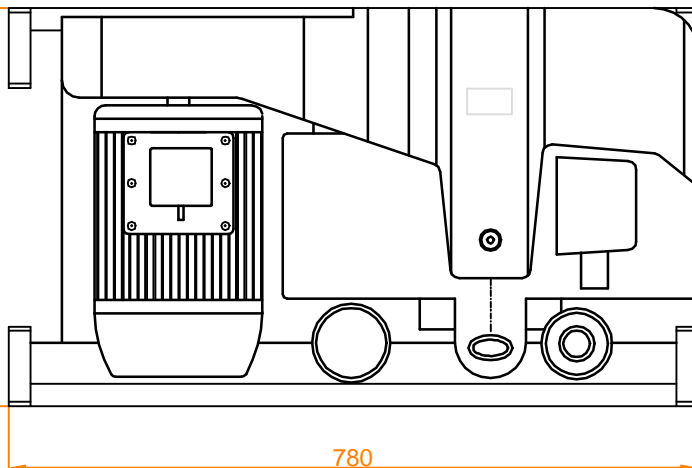


300



Cooling Air Inlet  
-  
Kühlluft Ansaugbereich

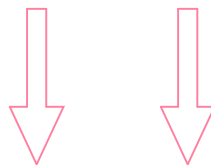
450



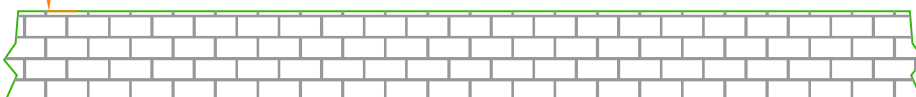
LW 160 E / LW 225 E

LENHARDT & WAGNER GMBH

300



Cooling Air Outlet  
-  
Kühlluft Abströmbereich





## **SPARE PART LIST**

# **LW 160 E - LW 190 E**

**Lenhardt & Wagner GmbH**  
Im Taubengang 4  
64653 Lorsch  
Germany  
Tel.: + 49 62 51 - 10 74 0  
Fax: + 49 62 51 - 10 74 14  
E-mail: [info@lenhardt-wagner.de](mailto:info@lenhardt-wagner.de)

**COMPRESSOR BLOCK – LW 160 E / LW 190 E**

<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>	<b>Remarks</b>
LW 160 / 190 1	Crankcase	1	
LW 160 / 190 2	Front Cover	1	
LW 160 / 190 3	Backcover	1	
LW 160 / 190 4	Mounting Stand	1	
LW 160 / 190 5	Oil-Fill	1	
LW 160 / 190 6	Oil-Cap	1	
LW 160 / 190 7	Breather	1	
LW 160 / 190 8	Spacer	1	
LW 160 / 190 9	Dipstick	1	
LW 160 / 190 10	PVC Hose	1	
LW 160 / 190 11	Bearing 6306	1	
LW 160 / 190 12	Bearing 6305	1	
LW 160 / 190 13	Gasket	1	
LW 160 / 190 14	O-Ring	2	
LW 160 / 190 15	O-Ring $\varnothing$ 130 x 3 mm	2	
LW 160 / 190 16	O-Ring $\varnothing$ 530x 2 mm	2	
LW 160 / 190 17	O-Ring $\varnothing$ 85x 2 mm	1	
LW 160 / 190 18	Allen Bolt M8 x 30 mm	2	
LW 160 / 190 19	Drain Plug M12 x 20 mm	1	
LW 160 / 190 20	Stut M8 x 20 mm	22	
LW 160 / 190 21	Bolt M10 x 35 mm	4	
LW 160 / 190 22	Nut M8	22	
LW 160 / 190 23	Nut M4	1	
LW 160 / 190 24	Plastic Washer $\varnothing$ 12 x 26 x 3 mm	1	
LW 160 / 190 25	Washer $\varnothing$ 8.4 mm	22	
LW 160 / 190 26	Washer	1	
LW 160 / 190 27	Bolt M10 x 40 mm	4	
LW 160 / 190 28	Washer $\varnothing$ 10.5	8	
LW 160 / 190 29	Circlip $\varnothing$ 72 mm	1	

**COMPRESSOR BLOCK - LW 160 E / LW 190 E**

<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>	<b>Remarks</b>
LW 160 / 190 35	Slider	1	obtainable only in combination with part no. 38
LW 160 / 190 36	Bridge	1	
LW 160 / 190 37	Crankshaft	1	
LW 160 / 190 38	Plunger	1	obtainable only in combination with part no. 35
LW 160 / 190 39	Piston 3. Stage	1	obtainable only in combination with part no. 75
LW 160 / 190 40	Piston 2. Stage	1	
LW 160 / 190 41	Connecting Rod	1	
LW 160 / 190 42	Piston 1. Stage	1	
LW 160 / 190 43	Guide Bar	1	
LW 160 / 190 44	Oil Jet	1	
LW 160 / 190 45	Piston Nut (2. Stage)	1	
LW 160 / 190 46	Piston Base 2. Stage	1	
LW 160 / 190 49	Retaining Washer Pulley	1	
LW 160 / 190 50	Pluner Pin 1. Stage	1	
LW 160 / 190 53	Piston Pin 1. Stage	1	
LW 160 / 190 54	Circlip Piston Pin 1. Stage	2	
LW 160 / 190 55	Piston Rings $\varnothing$ 28 x 1,5 mm (2. Stage)	1 Set	
LW 160 / 190 56	Piston Rings $\varnothing$ 75,5 x 1,5 mm (1. Stage)	1 Set	
LW 160 / 190 59	Circlip $\varnothing$ 17 mm	1	
LW 160 / 190 60	Needle Bearing INA 17 / 20	1	
LW 160 / 190 61	Key 8 x 7 x 32 mm	1	
LW 160 / 190 62	Circlip $\varnothing$ 30 mm	2	
LW 160 / 190 63	Circlip $\varnothing$ 35 mm	1	
LW 160 / 190 64	Circlip $\varnothing$ 16 mm	2	
LW 160 / 190 65	Bolt M6 x 20 mm	2	
LW 160 / 190 66	Bolt M8 x 30 mm	1	
LW 160 / 190 67	Bolt M4 x 5 mm	1	
LW 160 / 190 68	Washer M6	2	
LW 160 / 190 69	Washer M8	1	
LW 160 / 190 70	O-Ring $\varnothing$ 12 x 3 mm	1	

**COMPRESSOR BLOCK - LW 160 E / LW 190 E**

<b>Part No .</b>	<b>Description</b>	<b>Qty .</b>	<b>Remarks</b>
LW 160 / 190 72	Valve 2. Stage (compl.)	1	
LW 160 / 190 73	Valve 3. Stage (compl.)	1	
LW 160 / 190 74	Outlet Valve 1. Stage	1	
LW 160 / 190 75	Cylinder 3. Stage	1	available only in combination with part no. 39
LW 160 / 190 76	Cylinder 2. Stage	1	
LW 160 / 190 77	Cylinder 1. Stage	1	
LW 160 / 190 78	Valvehead 1. Stage	1	
LW 160 / 190 79	Valvehead2. Stage	1	
LW 160 / 190 80	Valvehead 3. Stage	1	
LW 160 / 190 81	Valvecover 1. Stage	1	
LW 160 / 190 82	Pipe Junction 3. Stage	1	
LW 160 / 190 83	Safety Valve 2. Stage	1	
LW 160 / 190 84	Safety Valve 1. Stage	1	
LW 160 / 190 85	Pipe Coupling - Inlet 2. Stage	2	
LW 160 / 190 86	Pipe Coupling - Outlet 1. Stage	2	
LW 160 / 190 87	Inlet Valve Housing 1. Stage	1	
LW 160 / 190 88	Inlet Valve 1. Stage	1	
LW 160 / 190 91	Valve Cap 3. Stage	1	
LW 160 / 190 97	Outlet Valve Housing 1. Stage	1	
LW 160 / 190 98	Valve Cap 2. Stage	1	
LW 160 / 190 103	Spring Washer 1. Stage	6	
LW 160 / 190 104	Nut M8	1	
LW 160 / 190 105	Washer Copper $\varnothing$ 14 x 20 x 1 mm	2	
LW 160 / 190 106	Bolt M8 x 70 mm	8	
LW 160 / 190 108	Washer M8	15	
LW 160 / 190 109	Paper Gasket	1	
LW 160 / 190 110	O-Ring $\varnothing$ 24 x 2,5 mm Viton	1	
LW 160 / 190 111	O-Ring $\varnothing$ 25 x 2 mm Viton	1	
LW 160 / 190 112	Stut M8 x 20 mm	1	
LW 160 / 190 113	Vent Pipe	1	
LW 160 / 190 114	Bolt M8 x 80 mm	6	







<b>HIGH PRESSURE TUBES - LW 160 E / LW 190 E</b>			
<b>Part No .</b>	<b>Description</b>	<b>Qty .</b>	<b>Remarks</b>
LW 160 / 190 130	Cooling Tube 3. Stage - Filterhousing	1	
LW 160 / 190 131	Cooling Tube 3. Stage - Pipe Junction	1	
LW 160 / 190 132	Cooling Tube Waterseparator 1. / 2. St. - 3. Stage	1	
LW 160 / 190 133	Cooling Tube 1. Stage - 2. Stage	1	
LW 160 / 190 134	Cooling Tube 2. Stage - Waterseparator 1. / 2. Stage	1	
LW 160 / 190 136	Stabilizing Clamp 4 (8mm) Alloy	1	obtainable only in combination with parts no. 143 & 144
LW 160 / 190 137	Stabilizing Clamp 5 (10mm) Alloy	2	
LW 160 / 190 138	Stabilizing Clamp 3 (10mm) Alu	1	
LW 160 / 190 139	Attachement Clamp (8mm)	1	obtainable only in combination with part no. 131
LW 160 / 190 140	Attachement Clamp (10mm)	3	to obtain only in combination with corresponding cooling tubes
LW 160 / 190 143	Bolt M5 x 20mm	10	
LW 160 / 190 144	Nut M5	10	

**FILTER HOUSING / WATERSEPARATOR - LW 160 E / LW 190 E**

<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>	<b>Remarks</b>
LW 160 / 190 150	Filter Housing Tube*	1	*Parts no. 150, 151 & 152 only available as a complete unit
LW 160 / 190 151	Filter Housing Base*	1	
LW 160 / 190 152	Filter Housing Top*	1	
LW 160 / 190 153	Inner Manifold	1	
LW 160 / 190 154	Molecarbon Filtercartridge	1	available only as a complete unit
LW 160 / 190 155	Base Safety Valve M16 x 1,5 mm / G3/8"	1	
LW 160 / 190 156	Pressure Maintaining Valve	1	
LW 160 / 190 157 a	Endpressure Safety Valve 225 bar	1	
LW 160 / 190 157 b	Endpressure Safety Valve 330 bar	1	
LW 160 / 190 158	Condensate Drain Wheel	1	
LW 160 / 190 159	Connection M14 x 1,5 mm / 10 L	1	
LW 160 / 190 160	Cooling Tube Coupler	1	
LW 160 / 190 161	HP Inter Coupler	1	
LW 160 / 190 163	Drain Hose	1	
LW 160 / 190 173	Spring Drain Valve	1	
LW 160 / 190 174	Spring Filter Cartridge	1	
LW 160 / 190 175	Washer Copper $\varnothing$ 8 x 14 x 1 mm	7	
LW 160 / 190 176	Washer Copper $\varnothing$ 6 x 12 x 1 mm	1	

**FILTER HOUSING / WATERSEPARATOR - LW 160 E / LW 190 E**

<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>	<b>Remarks</b>
LW 160 / 190 177	O-Ring Filter Cartridge	1	
LW 160 / 190 178	O-Ring Manifold	1	
LW 160 / 190 179	O-Ring	1	
LW 160 / 190 180	O-Ring Filter Housing	2	
LW 160 / 190 181	Allen Bolt M8 x 16 mm	3	
LW 160 / 190 182	Spring Washer	3	
LW 160 / 190 183	Jet	1	

**WATERSEPARATOR 1. & 2. STAGE - LW 160 E / LW 190 E**

<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>	<b>Remarks</b>
LW 160 / 190 190	Waterseparator Tube*	1	*Parts no. 190, 191, 192 & 193 only as a complete unit available
LW 160 / 190 191	Manifold*	1	
LW 160 / 190 192	Manifold Cap Waterseparator*	1	
LW 160 / 190 193	Waterseparator Base*	1	
LW 160 / 190 194	Cooling Tube Coupler	2	
LW 160 / 190 195	Condensate Drain Wheel	1	
LW 160 / 190 196	Drain Hose	1	
LW 160 / 190 197	Spring	1	
LW 160 / 190 200	Washer Copper $\varnothing$ 8 x 14 x 1 mm	2	
LW 160 / 190 201	O-Ring Drain Wheel	1	
LW 160 / 190 202	O-Ring $\varnothing$ 54 x 3 mm	2	
LW 160 / 190 203	Allen Bolt M8 x 16 mm	4	
LW 160 / 190 204	Spring Washer M8	4	

FRAME - LW 160 E / LW 190 E

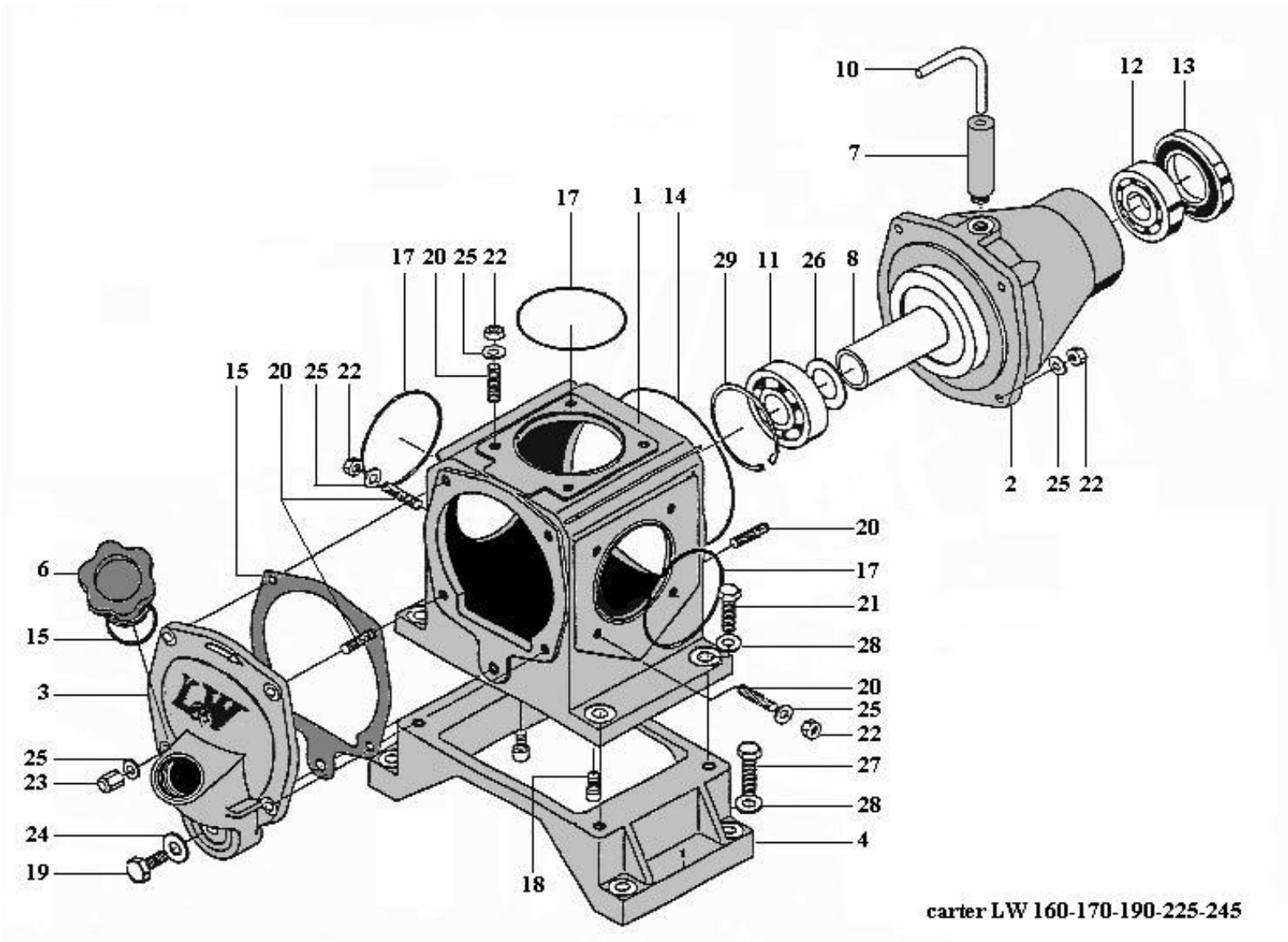
Part No.	Description	Qty.	Remarks
LW 160 / 190 210	Lower Frame	1	
LW 160 / 190 211	Base Frame Compressor	1	
LW 160 / 190 212	Mounting Plate - Specification 4 KW	1	
LW 160 / 190 213	Mouting Plate - Specification 5.5 KW	1	
LW 160 / 190 214	Mounting Plate - Specification Honda GX 270	1	
LW 160 / 190 215	Alloy Washers Compressor Cover	2	
LW 160 / 190 216	Silent Block	4	
LW 160 / 190 217	Round End Cap	6	
LW 160 / 190 218	Square End Cap - Drilled	1	
LW 160 / 190 219	Square End Cap	3	
LW 160 / 190 220	Ground Strap	1	
LW 160 / 190 221	Belt Adjust Lead Screw	1	
LW 160 / 190 225	Ground Screw M5 x 8 mm	2	
LW 160 / 190 226	Allen Bolt M8 x 18 mm	2	
LW 160 / 190 227	Nut M10	5	
LW 160 / 190 228	Nut M8	8	
LW 160 / 190 229	Washer M8	4	
LW 160 / 190 230	Washer M8	4	
LW 160 / 190 231	Washer M10	5	

<b>FILLING VALVE ASSEMBLY - LW 160 E / LW 190 E</b>			
<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>	<b>Remarks</b>
LW 160 / 190 240	Filling Valve Body	1	
LW 160 / 190 4044	Filling Valve Neck 200 bar	1	
LW 160 / 190 4045	DIN Hand Wheel 200 bar - black	1	
LW 160 / 190 4046	DIN Hand Wheel 300 bar - red	1	
LW 160 / 190 4048	Filling Valve Neck 300 bar	1	
LW 160 / 190 245	Connection M16 x 1,5 mm / 10 L	1	
LW 160 / 190 246	Bleed Valve Stem	1	
LW 160 / 190 247	Shut-Off Valve Stem	1	
LW 160 / 190 248	Shut-Off Valve Collar	1	
LW 160 / 190 249	Hand Wheel Nut	2	
LW 160 / 190 250	Filling Valve Wheel $\varnothing$ 35 mm	1	
LW 160 / 190 251	Bleed Valve Wheel $\varnothing$ 27 mm	1	
LW 160 / 190 4021	Filling Hose M16 x 1,5 mm Lenght: 1 m	1	
LW 160 / 190 253	Pressure Gauge 0-400 bar G 1/4"	1	
LW 160 / 190 255	HP Seat	1	
LW 160 / 190 256	Packing Washer	1	
LW 160 / 190 257	Washer Copper $\varnothing$ 8 x 14 x 1 mm	1	
LW 160 / 190 258	Washer Copper $\varnothing$ 4 x 6 x 3 mm	1	
LW 160 / 190 259	Worm Screw M3 x 8 mm	1	
LW 160 / 190 260	O-Ring	1	
LW 160 / 190 261	O-Ring	1	
LW 160 / 190 262	O-Ring Filling Valve Neck 200 bar	1	
LW 160 / 190 263	Protector Pressure Gauge	1	
LW 160 / 190 264	O-Ring Filling Valve Neck 300 bar	1	
LW 160 / 190 4057	Filling Valve compl. (without Filling Hose)	1	
LW 160 / 190 4058	Filling Valve compl. (without Filling Hose & Pressure Gauge)	1	

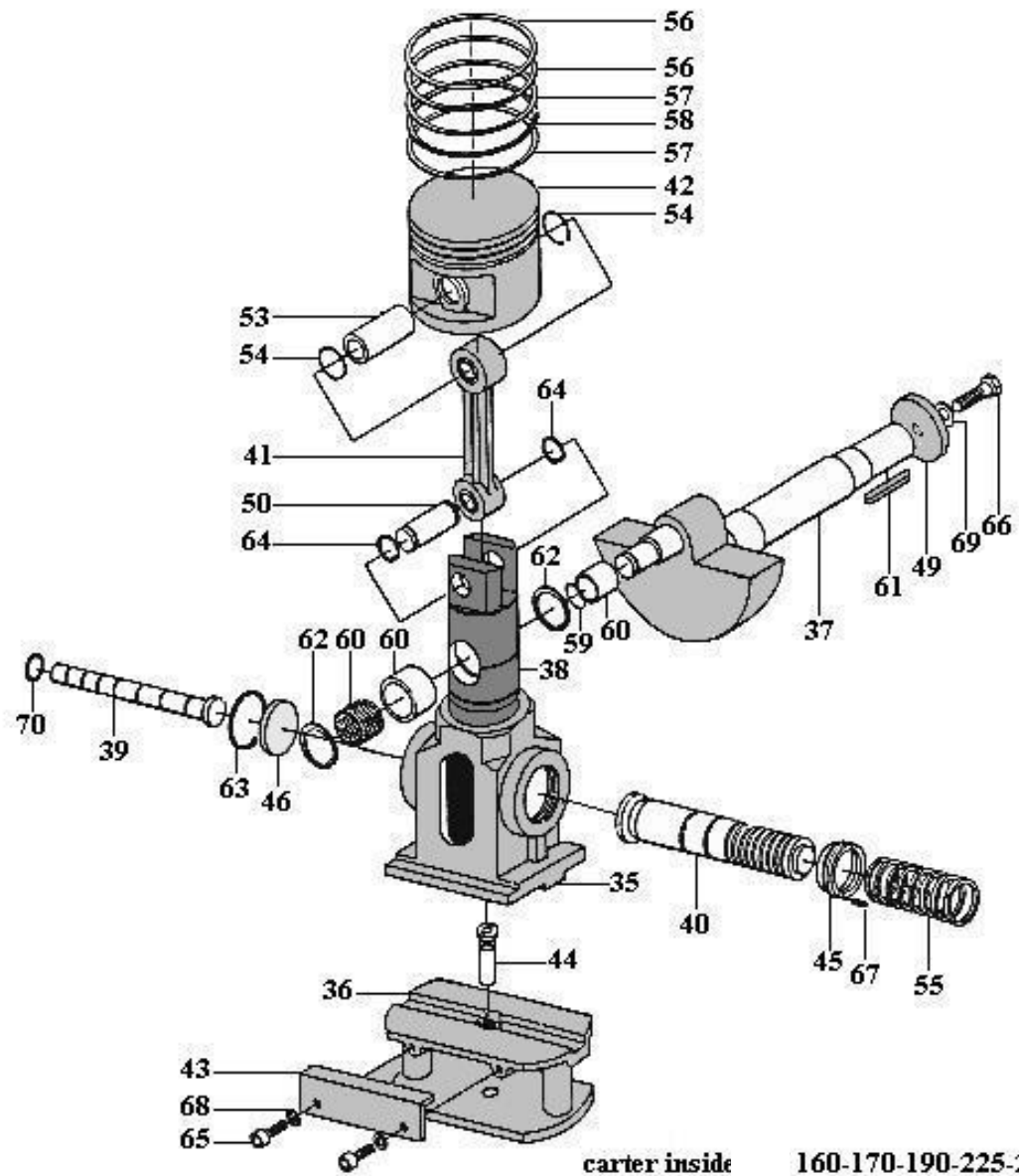


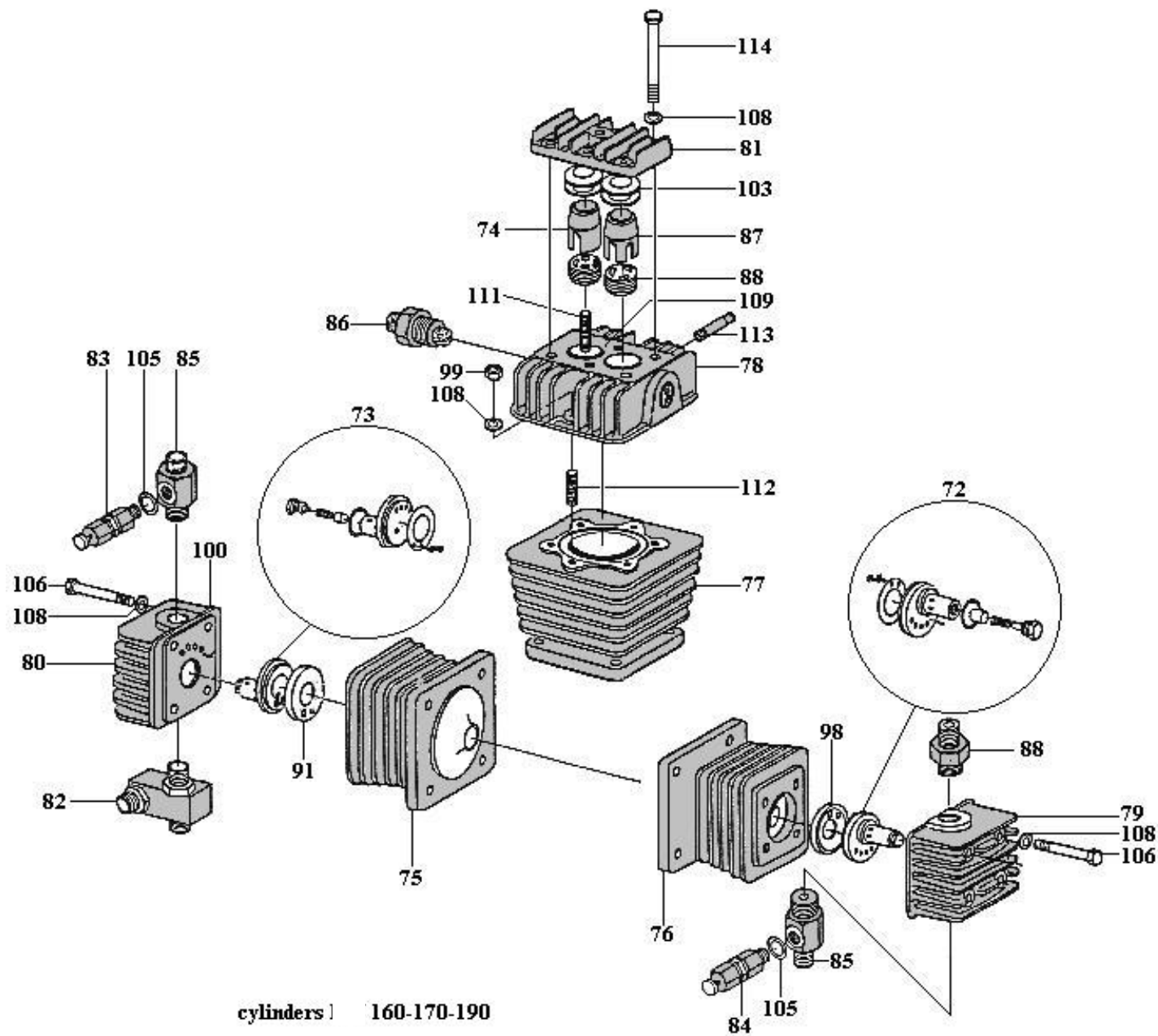




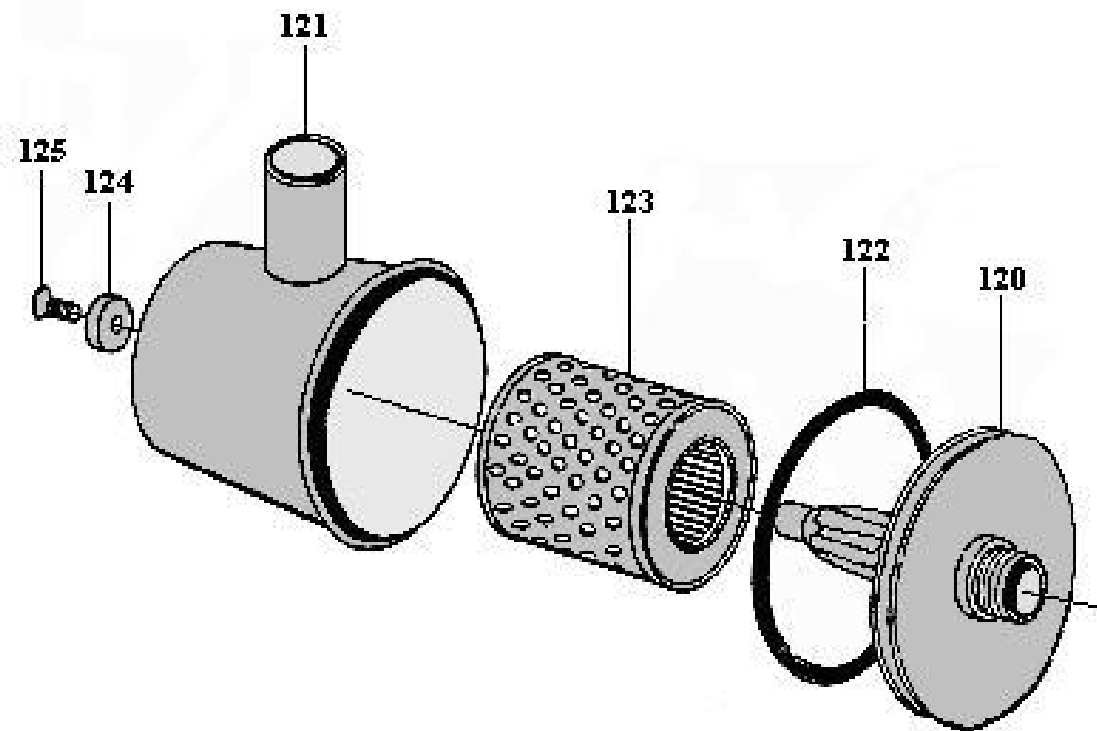


**carter LW 160-170-190-225-245**

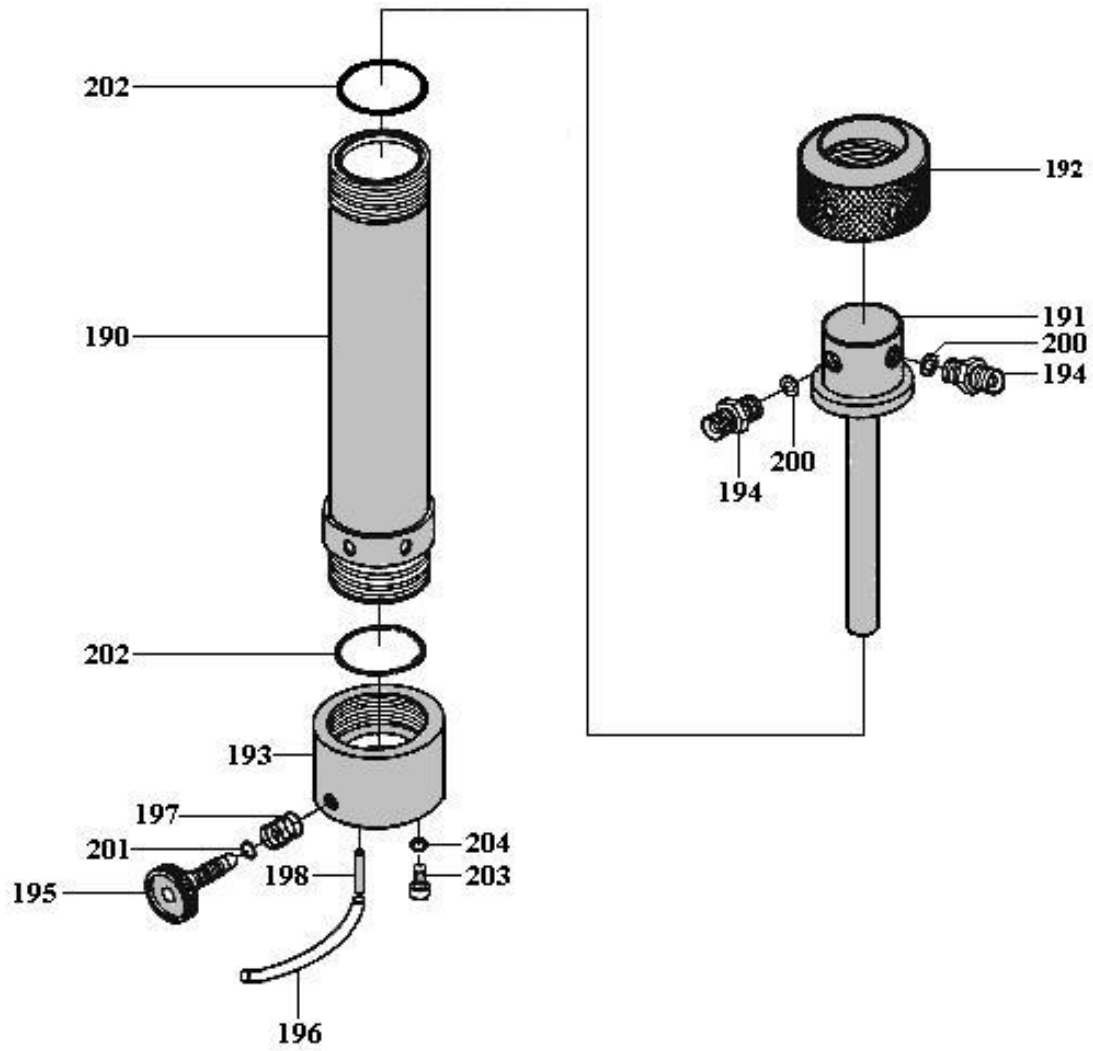




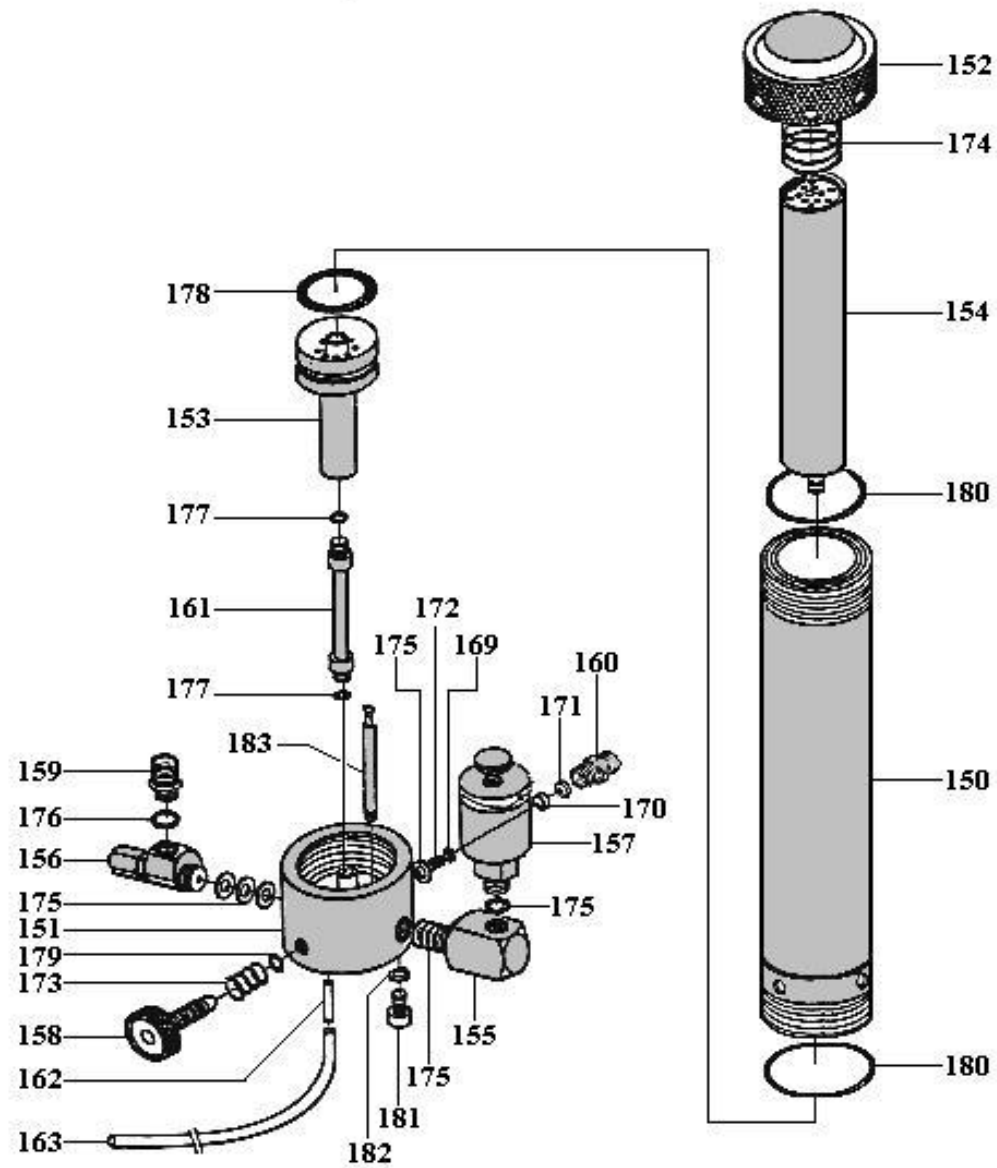
cylinders | 160-170-190



**intake filter    160-170-190-225-245**

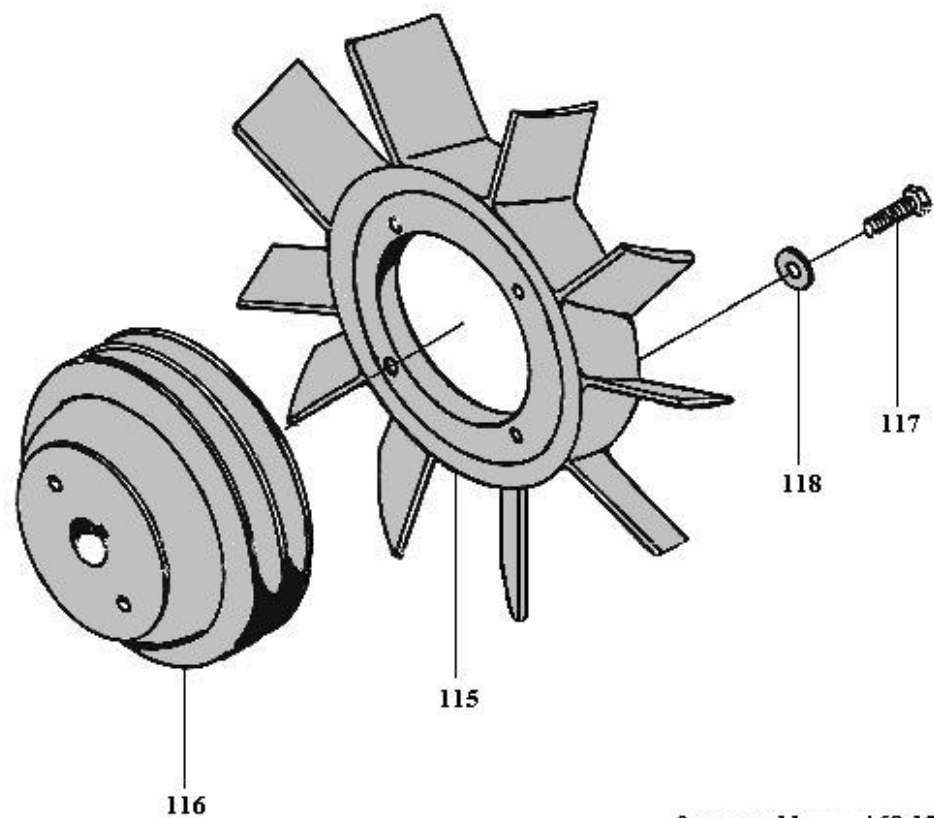


separator | 160-170-190-225-245

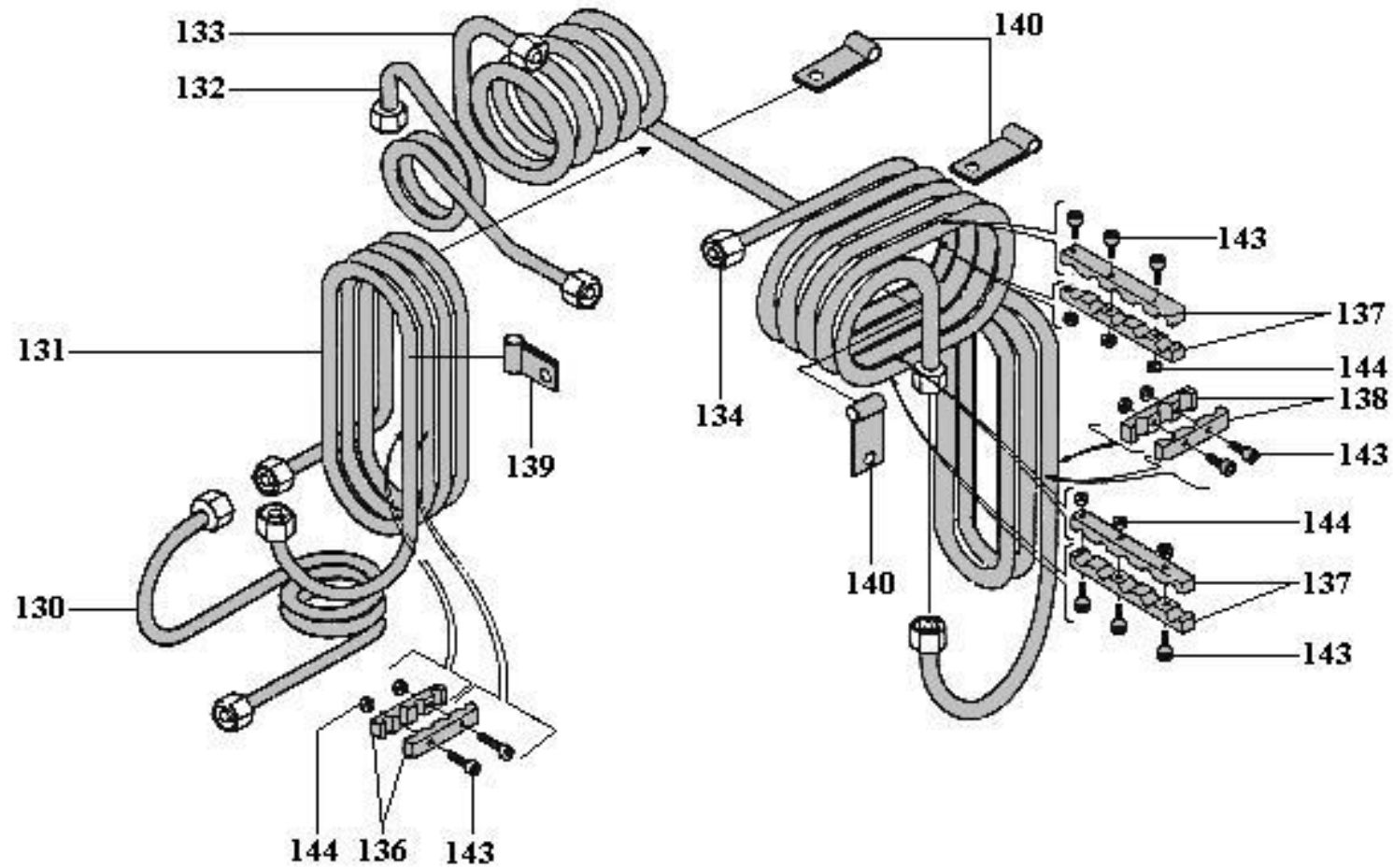


final separator and filter assembly 160-170-190-225-245



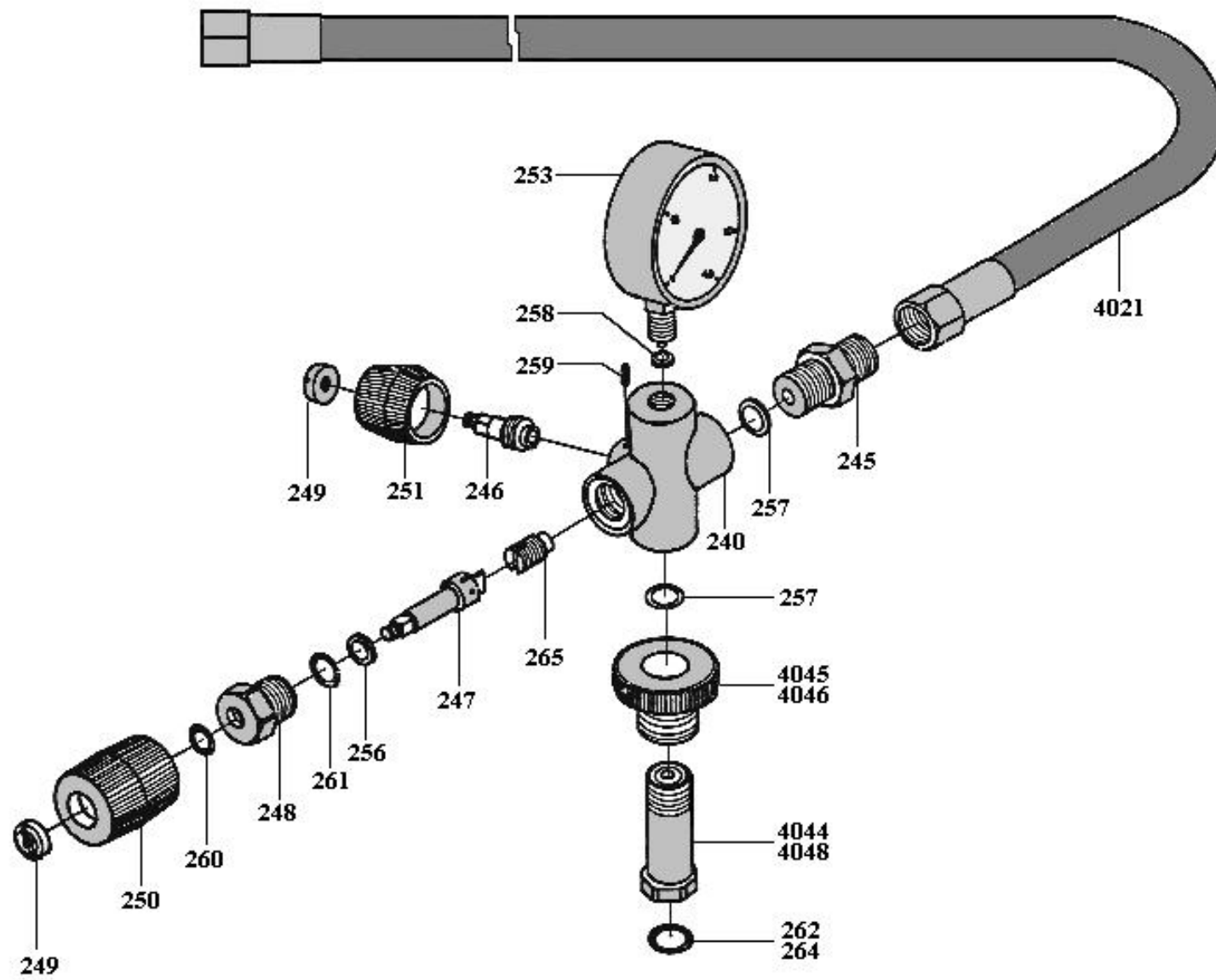


fan assembly ... 160-170-190-225-245

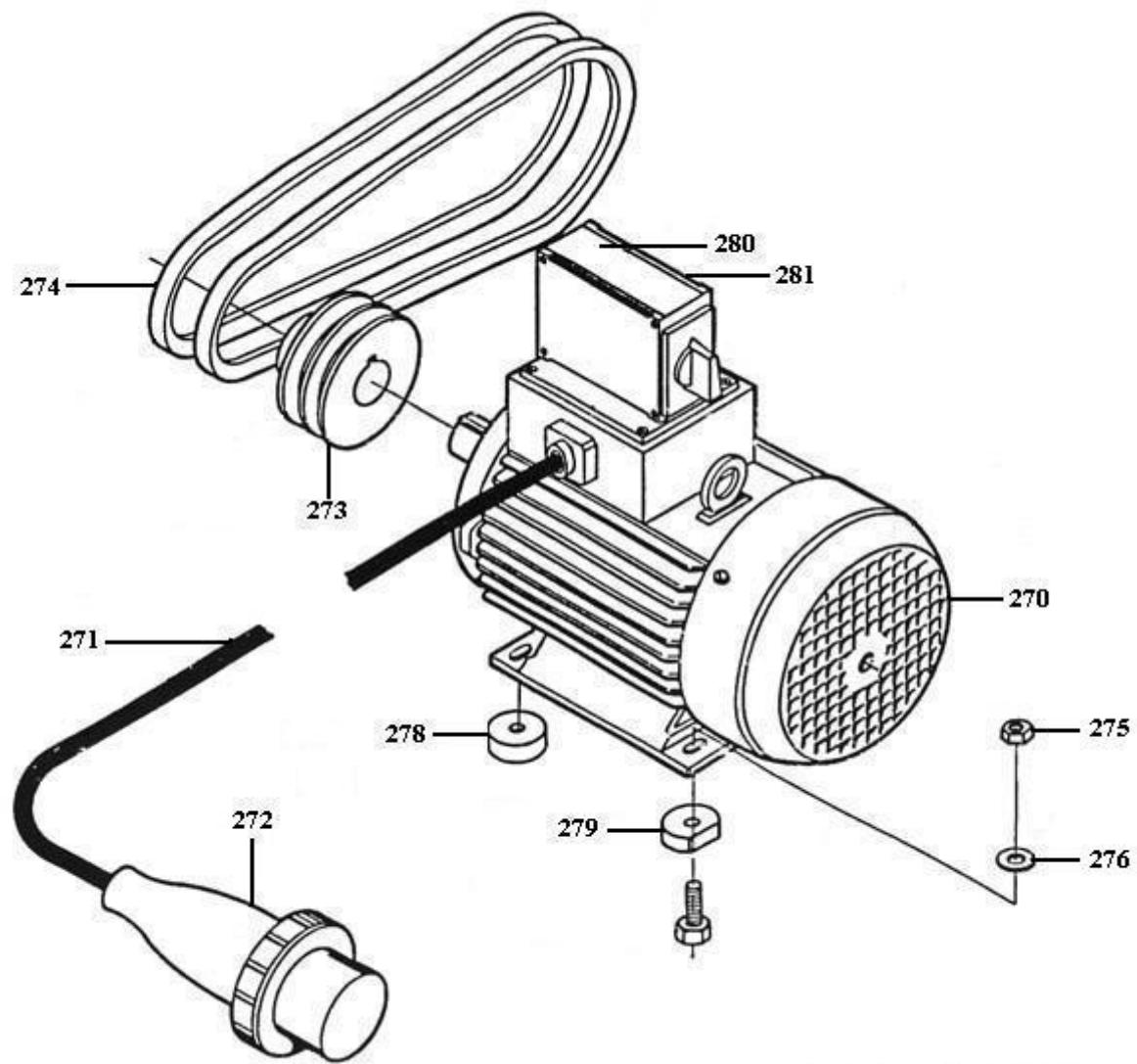


cooling tube assembly

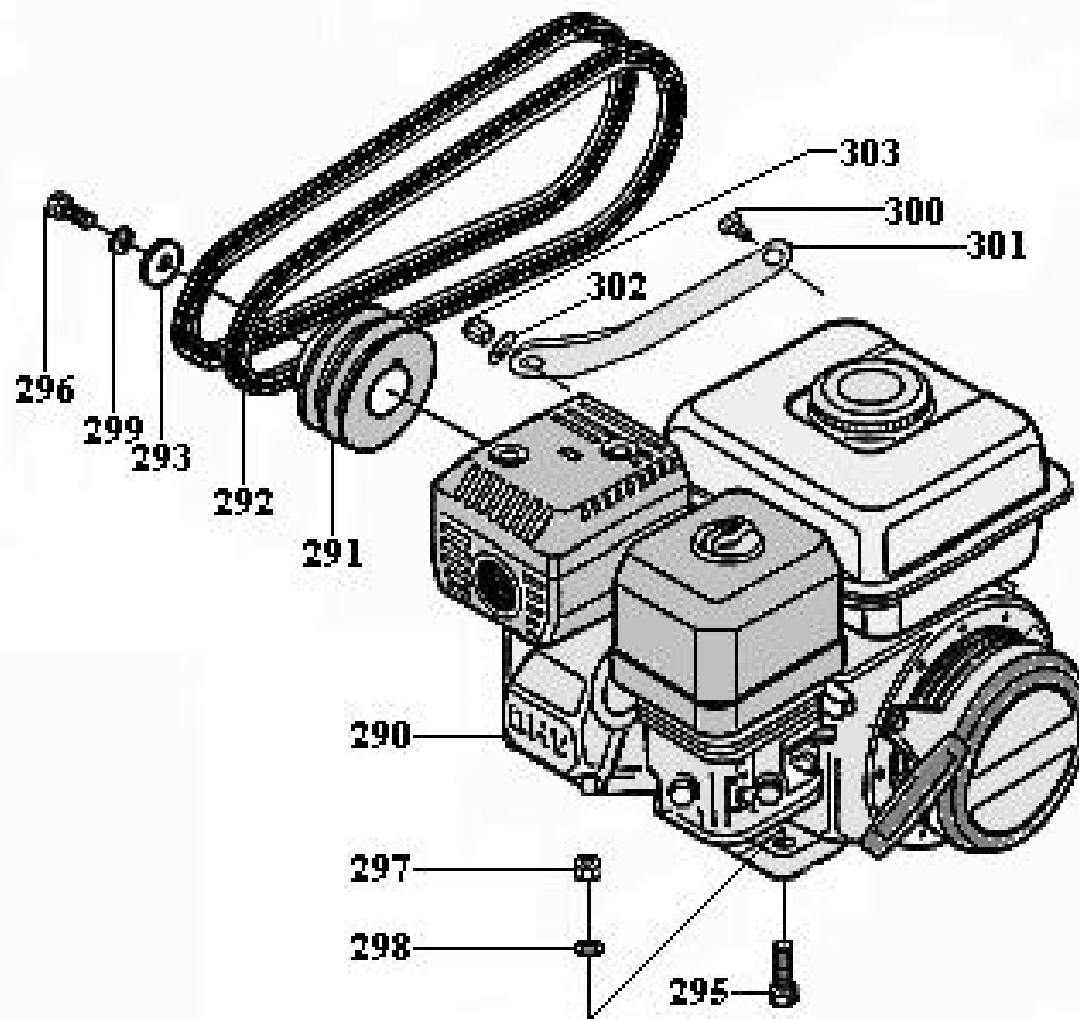
160-170-190-225-245



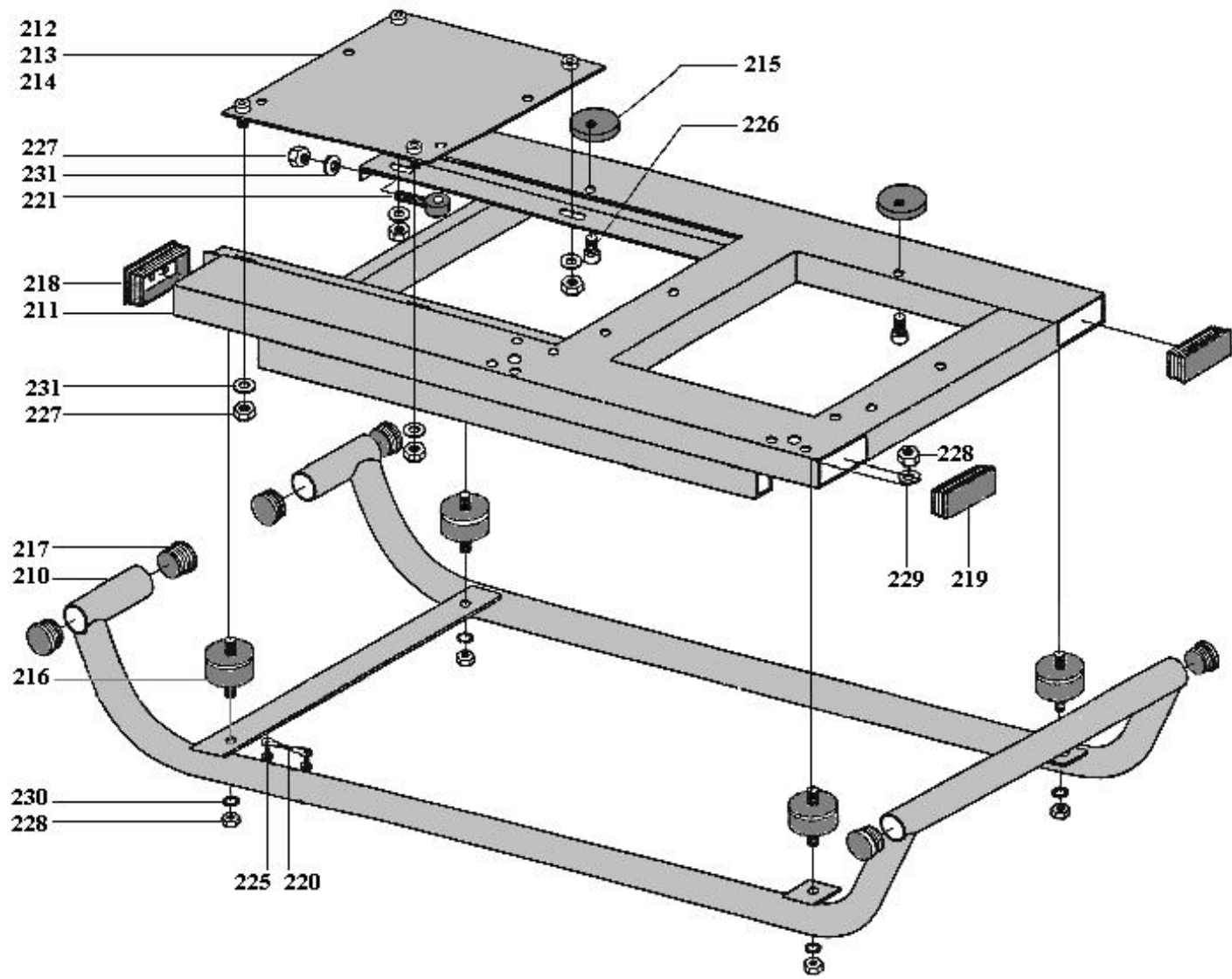
fillinghose assembly /160-190-225-245



**E-motor 160-170-225**



**Honda GX 270 6 kW**



compressor frame 160-190-225-245