

# Quicklub Grease Pump Model PP

## Table of contents

Contents	Page	Contents	Page
<b>Safety instructions</b> .....	2	PP with 1,5-litre reservoir (Front view) .....	6
Electrical connections .....	3	PP with 1,5-litre reservoir (Side view) .....	7
Putting into operation .....	3	PP with 0,4-litre reservoir (Side view) .....	8
Maintenance and repair .....	3	Filling instruction for model PP 4 .....	9
<b>Quicklub Grease Pump Model PP</b> .....	4	Spare part list .....	10
Technical Data .....	4	Troubleshooting .....	11
<b>Commissioning of the system</b> .....	5	Declaration by the manufacture .....	13
Pump and main lines .....	5		
Typical outlet combination .....	5		

## Safety Instructions

The Operating Manual contains important instructions regarding safe, proper and economical operation of the pump/system.

Keeping to these instructions will avoid risks, reduce repair costs and down time and improve reliability and pump life. The Operating Manual has to be completed by instructions which are part of the existing national safety and environmental regulations. The Operating Manual must always be available on site where the pump/system is erected.

If persons engaged with the pump operation are not fully in command of the German language, the user of the pump must see to it that his operating staff, prior to commencement of working, is instructed of the contents of the Operating Manual, especially of all safety instructions. Any persons engaged with pump operation must read and follow the Operating Manual, e. g.

- operation including setting-up elimination of faults in the working procedure, removal of production chips, dumping of auxiliary and working material
- servicing ( maintenance, inspection, repair) and/or
- transportation

Notes directly fixed to the pump must be observed and kept in legible condition.

### Staff Qualification and Training

The staff responsible for operation, maintenance, inspection and installation must be adequately qualified for these jobs. The user must properly regulate the field responsibility and supervision of the personnel. If the personnel has not the necessary expertise, then they must be adequately trained and instructed. If necessary, this can be done by the manufacture(supplier) on behalf of the machine user. Furthermore, the user must ensure that the contents of the Operating Manual are fully understood by the personnel.

### Hazards resulting from ignoring the safety notes

Failure to heed the safety warnings may result in equipment and environment damage and/or personal injury. Ignoring the safety notes may result in the disqualification from damage claim.

### Safety instructions for user/operator

- Protection devices against accidental contact for moving parts must not be removed from a pump in operation
- Leakages of harmful materials must be dumped without jeopardizing human beings or environment. The requirements of the Law must be satisfied.
- Danger caused by electric energy must be excluded (for details refer to the applicable specifications of VDE and the local power supply companies).

### Safety instructions for maintenance, inspection and installation services

The user make sure that all maintenance, inspection and installation work will be executed by authorized and qualified experts who have thoroughly read the Operating Manual.

Generally, any work on the machine must be done while the machine is out of operation. Pumps and pump units delivering harmful materials, must be decontaminated, Immediately after completion of the cleaning procedure, all safety and protection devices must be reassembled. Materials harmful to the environment must be disposed of in accordance with the applicable official regulations. Before putting the pump/pump unit into operation all items given in the Operating Manual must be observed.

### Unauthorized modifications and spare part production

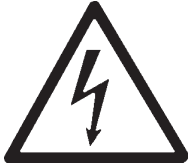
Alteration and modification of the machine are only allowed if agreed upon by the manufacture. Original spare parts and accessory authorized by the manufacture serve the purpose of safety. When other parts are used, the manufacture may be released from liability for the resulting consequences.

### Application as agreed

The pump has been designed to be exclusively used in centralized lubrication systems. The maximum values given in the Data Sheet must not be exceeded. Any application other than the one described above is not covered by warranty. The product (pump/pump unit) is not allowed to be put to operation in the European Community unless it has been stated that the machine in question complies with the CE guidelines.

The following items must be considered:

**Electrical connections**



All operations on electrical equipment must be out by qualified staff only.

**Electrical connection of level controls**

- in accordance with terminal diagrams in Annex or with circuit diagram

**Putting into operation**

**To fill the lubricant reservoir**

The grease reservoir must be filled with clean lubricant via the filling connection or the opened cover.



- be careful that no particles of dirt or other foreign matter will enter the reservoir while the reservoir is being filled.
- refill the reservoir well in time
- keep the environment of the reservoir clean



During the process of venting do not stay in the vicinity of the pump directly before the vent-plug. Risk of lubricant squirting out of the vent hole!

**Maintenance and repair**



All repair work must be executed only by authorized and qualified personnel using original spare parts.

**Prior to any pump repair, the following instructions must be complied with:**

- disconnect air supply to pump and protect it against accidental restart.
- relieve pump and system pressure to zero bar. For this purpose loosen the pressure connection on the pump.
- For grease pumps: The spring of the follower plate in the reservoir is reloaded. For disassembly only use appropriate tools.

All repair work beyond the expertise of the user must be carried out by LINCOLN qualified experts. For this purpose either the defective pump can be returned to the Repair Department of the Walldorf factory or an experts can be requested to execute the repair on site.

Service address:

LINCOLN GmbH Customer Service  
Postfach 1263  
D-69183 Walldorf  
Tel +49 (6227) 33-0  
Fax +49 (6227) 33-259

Subject to modifications  
All system components in the downstream system (lubricant metering devices, tube lines, tube fittings, hoses) must at least be designed for the maximum system pressure.

## Quicklub Grease Pump Model PP

Model	Part No.
PP 4	604-25104-1
PP 15	604-25105-2

### Technical Data

Pump pressure ratio .....	40:1
Air pressure .....	min. 4 bar
.....	max.10 bar
Max. operating pressure .....	300 bar
Air inlet .....	G1/8"
Lube outlet .....	dia 6 mm
Lubricant output per pump stroke .....	2,6 cm <sup>3</sup>
Reservoir capacities PP 15 .....	1,5 l
PP 4 .....	0,4 l

### Description

The QUICKLUB pump model PP is designed for use with progressive typ centralized lubrication system. It is a pneumatically operated single-stroke pump with spring-loaded follower plate requiring a 3/2-way valve for activating the air cylinder. It has a control rod for lubricant level.

### Operation

When the solenoid is energized, compressed air enters the air cylinder bottom

and moves the piston moves upward, the ball seat of the suction valve presents the lubricant from returning to the lubricant reservoir. Lubricant is therefore dispensed from the outlet of the pump.

When the solenoid is de-energized, the compressed air leaves the air cylinder. The piston spring moves the piston downward. The ball of the suction valve unseats allowing lubricant from reservoir to refill the discharge cavity in the pump body for the next lubrication cycle.

**Important:** The pump must be installed in vertical position!

### Filling of reservoir

It is advisable to fill the reservoir via the hydraulic lubrication fitting 251-14045-1 located at the base of the pump reservoir. Either use a pneumatic or a manual grease pump. Reservoir must be filled until the recessed ring appears on the follower rod at the top of the reservoir. The above applies only to pumps of model PP 15.

For pumps of model PP 4 refer to Filling Instructions on page 4 (folded page).

**Important:** Avoid air inclusions!

## Commissioning of the system

### Pump and main lines

After the reservoir has been filled with the recommended lubricant the counter nut of the vent screw must be loosened and the vent screw opened by maximum one turn ( DO NOT REMOVE).

Also disconnect the main lines from the metering device inlets. Activate the pump until lubricant is emerging at the vent screw. Then retighten first the vent screw and then the counter nut. Continue to activate the pump until lubricant is emerging from the disconnected main lines. Then re-tighten the inlet fittings of the metering device. Repeat this procedure until all main lines are filled.

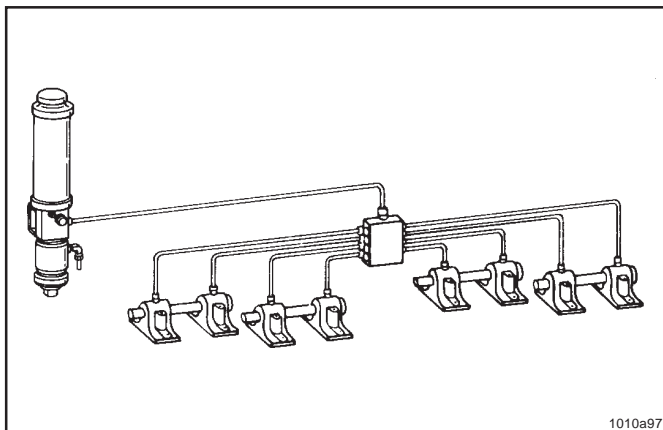
### Feed lines

It is advisable to fill each feed line with lubricant before it is connected with the metering device outlet.

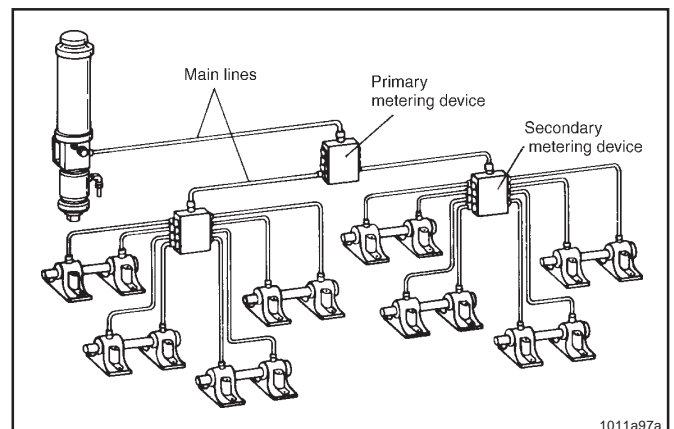
### Filling instructions for model PP4

Remove pump reservoir with cover.  
Immerse open part of pump reservoir into grease. Pull piston guide rod vigorously upwards and lock it into groove. Avoid air inclusions. Screw reservoir onto pump. Release guide rod (central position).

### Typical outlet combination

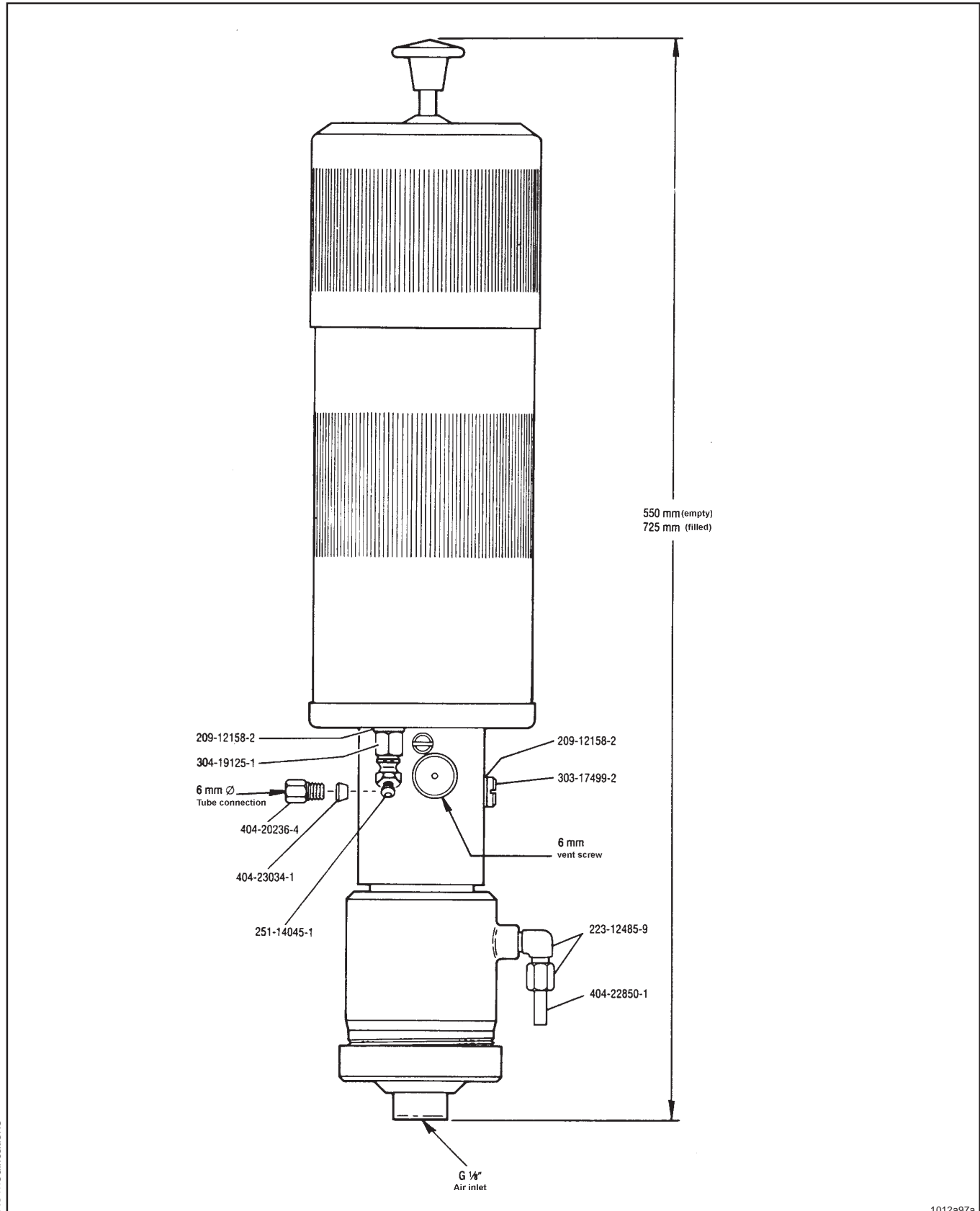


Lubrication system with main metering device



Lubrication system with main and secondary metering devices

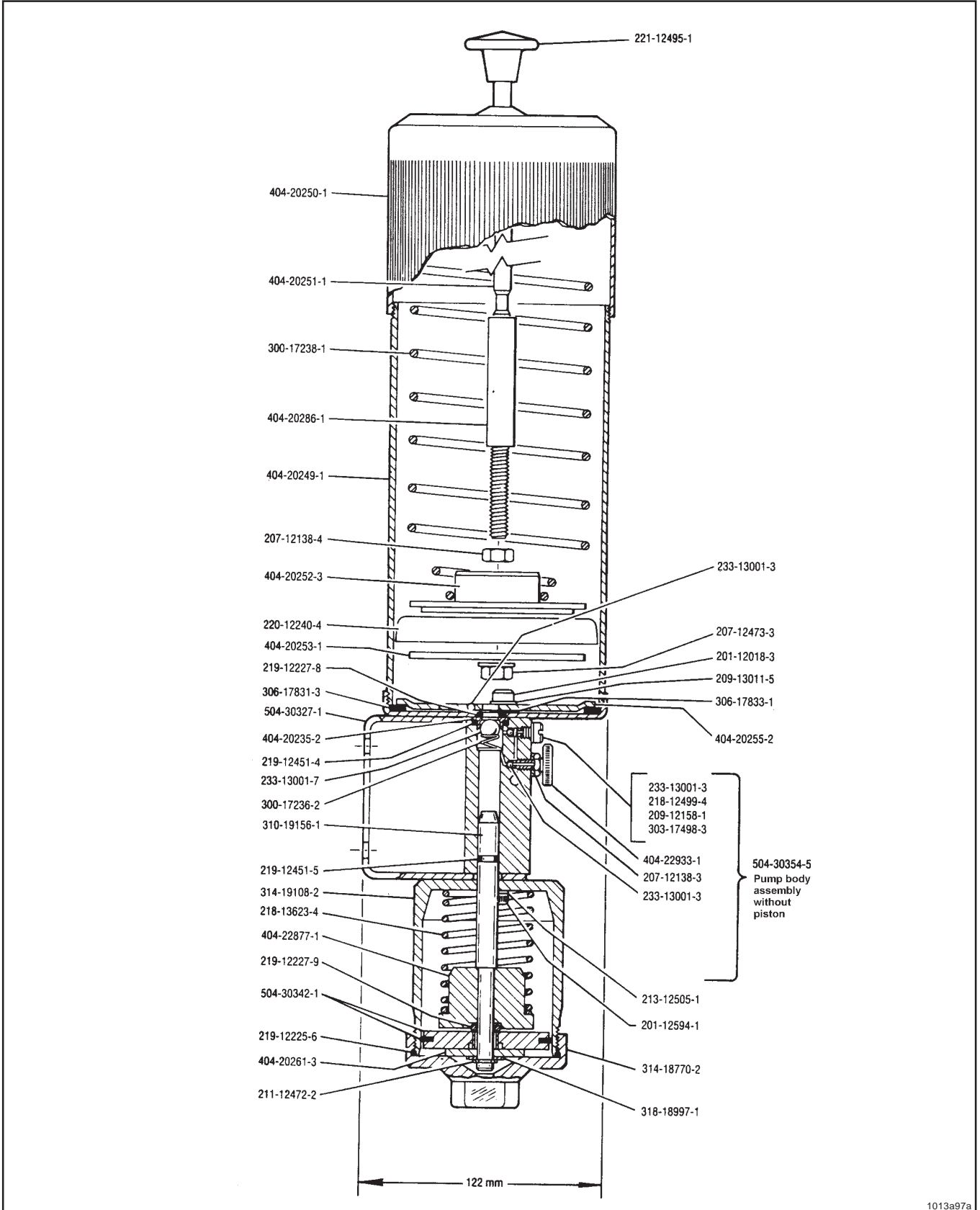
PP with 1.5-litre reservoir (Front view)



Subject to modifications

1012a97a

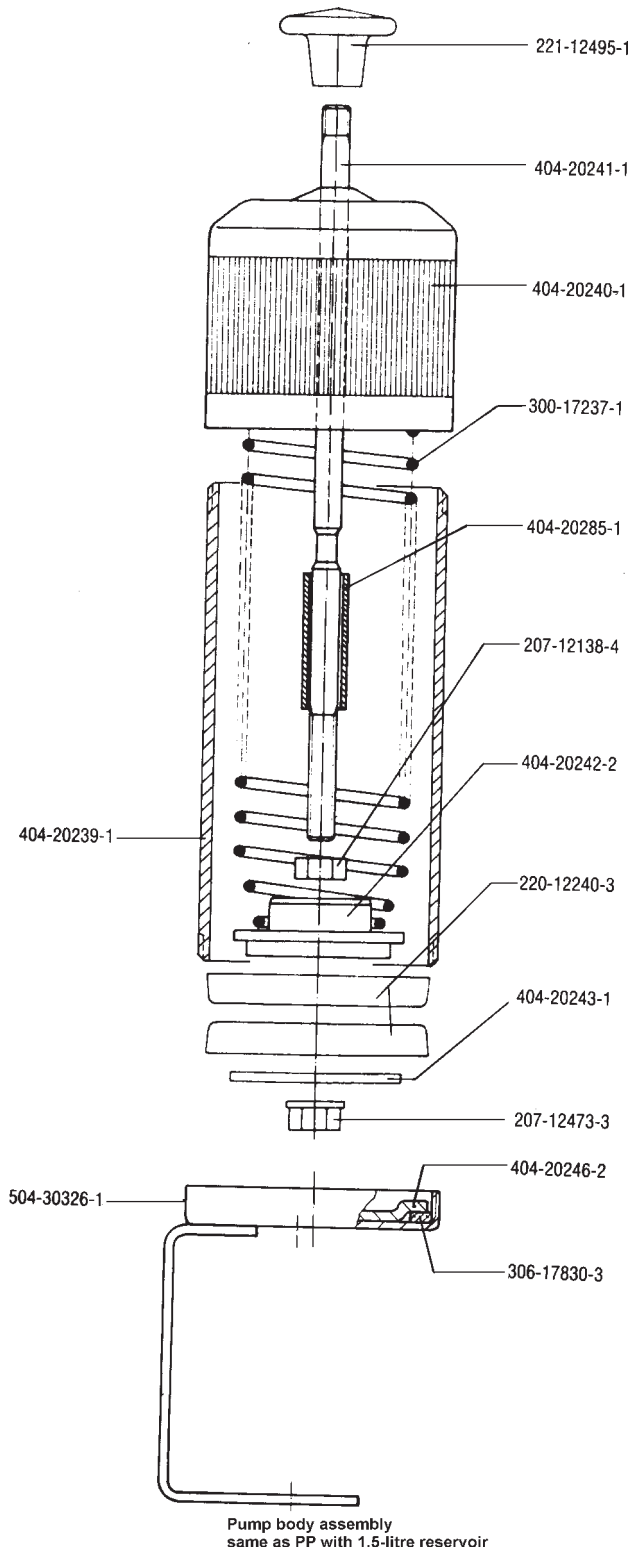
PP with 1.5-litre reservoir (side view)



Subject to modifications

1013a97a

PP with 0.4-litre reservoir (side view)

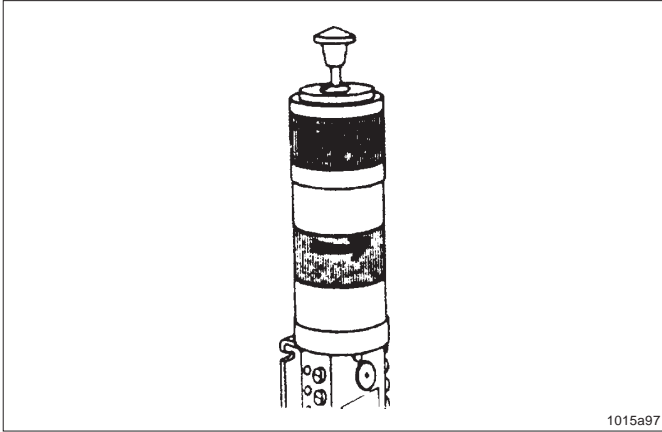


Subject to modifications

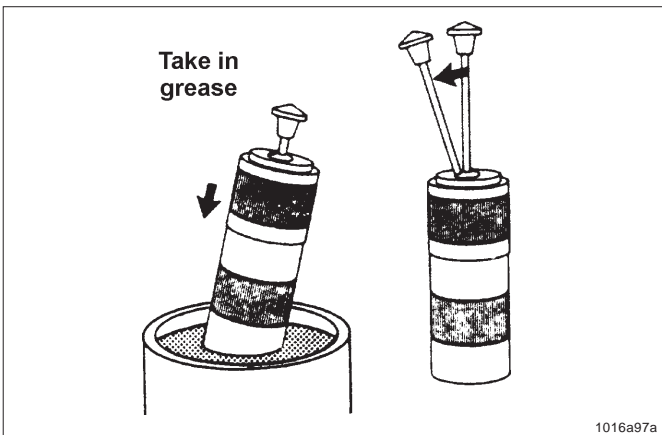
1014a97



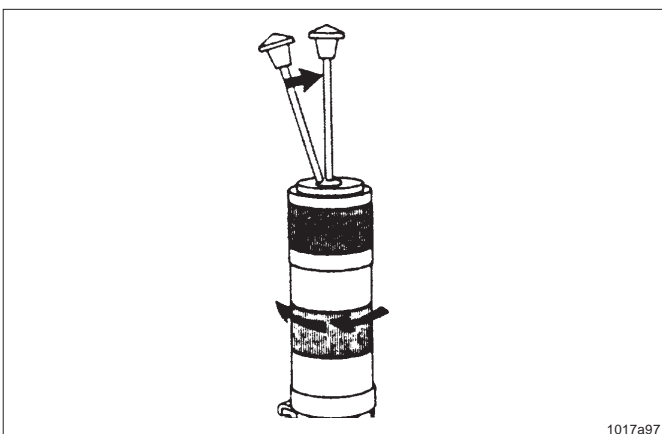
**Filling instruction for model PP 4**



Remove pump reservoir with cover



Immerse open part of pump reservoir into grease. Pull piston guide rod vigorousl< upwards and lock it into groove. Avoid air inclusions.



Screw reservoir onto pump. Release guide rode (central position).

**Spare Parts List**

**PP with 1,5-litre reservoir**

**PP with 0,4-litre reservoir**

PP with 1,5-litre reservoir			PP with 0,4-litre reservoir				
Description	Qty	Part No.	Description	Qty.	Part No.		
1	Hex. socket head screw	2	201-12018-3	1	Hex. nut	1	207-12138-4
2	Hex. socket head screw	2	201-12594-1	2	Self-locking hex. nut	1	207-12473-3
3	Hex. nut	1	207-12138-4	3	Axial cup seal	1	220-12240-4
4	Hex. nut	1	207-12138-3	4	Switching knob	1	221-12495-1
5	Self-locking hex. nut	1	207-12473-3	5	Compression spring	1	300-17237-1
6	Gasket	1	209-12158-1	6	Gasket	1	306-17830-3
7	Gasket	2	209-12158-2	7	Reservoir 0,4-litre	1	404-20239-1
8	Washer	2	209-13011-5	8	Cover	1	404-20240-1
9	Retaining ring	1	211-12472-2	9	Piston guide rod	1	404-20241-1
10	Spring washer	2	213-12505-1	10	Piston plate 1	1	404-20242-2
11	Compression spring	1	218-12499-4	11	Piston plate 2	1	404-20243-1
12	Compression spring	1	218-13623-4	12	Gaskert support	1	404-20246-2
13	O-ring	1	219-12225-6	13	Stop sleeve, short	1	404-20285-1
14	O-ring	1	219-12227-8	14	Bottom with bracket	1	504-30326-1
15	O-ring	1	219-12227-9				
16	O-ring	1	219-12451-4				
17	O-ring	1	219-12451-5				
18	Axial cup seal	1	220-12240-4				
19	Switching knob	1	221-12495-1				
20	WE6-LLR 1/8 KC	1	223-12485-9				
21	Steel ball	4	233-13001-3				
22	Steel ball	1	233-13001-7				
23	Hydraulic lubrication fitting	1	251-14045-1				
24	Compression spring	1	300-17236-2				
25	Compression spring	1	300-17238-1				
26	Closure plug	1	303-17498-3				
27	Closure plug	1	303-17499-2				
28	Adapter	1	304-19125-1				
29	Gasket	1	306-17831-3				
30	Gasket	2	306-17833-1				
31	Piston	1	310-19156-1				
32	Bottom	1	314-18770-2				
33	Cylinder	1	314-19108-2				
34	Washer	1	318-18997-1				
35	Ball seat	1	404-20235-2				
36	Compression nut	1	404-20236-4				
37	Reservoir 1.5-litre	1	404-20249-1				
38	Cover	1	404-20250-1				
39	Piston guide rod	1	404-20251-1				
40	Piston plate 1	1	404-20252-3				
41	Piston plate 2	1	404-20253-1				
42	Gaskert support	1	404-20255-2				
43	Washer	1	404-20261-3				
44	Stop sleeve, long	1	404-20286-1				
45	Vent tube	1	404-22850-1				
46	Stop	1	404-22877-1				
47	Vent screw	1	404-22933-1				
48	Clamping ring	1	404-23034-1				
49	Bottom with bracket	1	504-30327-1				
50	Pneumatic piston dia. 63	1	504-30342-1				
51	Pump body assembly without piston	1	504-30354-5				

Subject to modifications

## Troubleshooting

<b>• Fault: Pump operates without discharging lubricant</b>	
<b>• Cause</b>	<b>• Remedy</b>
<ul style="list-style-type: none"> <li>Lubricant reservoir is empty.</li> <li>Air pockets in lubricant.</li> </ul>	<ul style="list-style-type: none"> <li>Check reservoir, refill, if necessary.</li> <li>Vent air from pump. See instructions „Commissioning of the pump“. If applicable, renew lubricant.</li> </ul>
<b>• Fault: No compressed air on pump air cylinder</b>	
<b>• Cause</b>	<b>• Remedy</b>
<ul style="list-style-type: none"> <li>3/2-way valve defective</li> </ul>	<ul style="list-style-type: none"> <li>Check solenoid valve, repair or replace, if necessary.</li> </ul>
<b>• Fault: No compressed air available at air cylinder, piston does not complete its stroke (indicator pin does not move)</b>	
<b>• Cause</b>	<b>• Remedy</b>
<ul style="list-style-type: none"> <li>Blockage in lubricant line.</li> </ul>	<ul style="list-style-type: none"> <li>Pressurize pump. Loosen pump body fittings and check for lubricant discharge. then loosen fittings at metering devices or lubrication points until lubricant emerges from outlets and the pump begins to run. This will indicate in which line the blockage has occurred. After the blockage has been cleared, re-tighten all loose fittings.</li> </ul>
<b>• Fault: Air escapes from cylinder vent tube. The air cylinder is operating and the piston is at top of stroke.</b>	
<b>• Cause</b>	<b>• Remedy</b>
<ul style="list-style-type: none"> <li>O-ring 219-13043-6 or pneumatic piston 504-30342-1 worn or damaged.</li> </ul>	<ul style="list-style-type: none"> <li>Disconnect air supply. Unscrew bottom 314-18770-2. Remove piston and disassemble all parts. Replace O-ring 219-12451-5, O-ring 219-13043-6, pneumatic piston with packing 504-30342-1 and retaining ring 211-12472-2. Reassembly piston assembly and lubricate lightly with oil. Loosen vent screw counter nut and open vent screw approximately one turn (DO NOT REMOVE) and install piston assembly. Replace O-ring 219-12225-6 and reassembly air cylinder bottom. Reconnect air supply. Operate pump until lubricant flows from vent screw, then tighten vent screw and counter nut.</li> </ul>
<b>• Fault: Lubricant discharged from vent tube.</b>	
<b>• Cause</b>	<b>• Remedy</b>
<ul style="list-style-type: none"> <li>O-ring 219-12451-5 worn or damaged</li> </ul>	<ul style="list-style-type: none"> <li>Disconnect air supply. Unscrew bottom 314-18770-2. Remove piston assembly and replace O-Ring 219-12451-5. Lightly lubricate piston with oil. Loosen the counter nut at vent screw and open vent screw approximately one turn (DO NOT REMOVE) and install piston assembly. Replace O-ring 219-12225-6 and reassembly air cylinder bottom. Reconnect air supply. Operate pump until lubricant flows from vent screw, then retighten vent screw and counter nut.</li> </ul>

Subject to modifications

<ul style="list-style-type: none"> <li>• <b>Fault: Lubricant discharged from reservoir thread</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Cause</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Remedy</b></li> </ul>
<ul style="list-style-type: none"> <li>• Gasket 306-17831-3 either worn or damaged.</li> </ul>	<ul style="list-style-type: none"> <li>• By means of grip pliers withdraw guide rod from top of reservoir and latch. Unscrew reservoir from reservoir base and remove. Unscrew two 201-12018-3 hex. socket screws. Remove gasket support 404-20255-2. Replace gasket 306-17831 and two paper gaskets 306-17833-1. To reassemble, reverse disassembly procedure.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Fault: Lubricant leaking between pump body and reservoir base</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Cause</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Remedy</b></li> </ul>
<ul style="list-style-type: none"> <li>• O-Ring 219-12451-4, O-Ring 219-12227-8 worn or damaged.</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Fault: Pump fails to deliver lubricant</b></li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Cause</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Remedy</b></li> </ul>
<ul style="list-style-type: none"> <li>• Balls of check valve, 233-13001-7, and ball seat 404-20235-2 dirty, worn or damaged.</li> </ul>	<ul style="list-style-type: none"> <li>• Disconnect air supply. Unscrew air cylinder bottom 314-18770-2 and remove piston assembly. Unscrew two hex. socket screws 201-12594-1 and remove air cylinder 314-19108-2. Withdraw the piston guide rod from top of reservoir and latch. Unscrew reservoir from reservoir base and remove. Unscrew two 201-12018-3 hex. socket screws and remove pump body. Remove ball seat 404-20235-2 and replace O-ring 219-12451-4. Clean and inspect check valve ball and ball seat, replace if worn or damaged. Replace O-ring 219-12227-8 in reservoir base. Replace paper gasket 306-17833-1. To reassemble, reverse disassembly procedures. When installing piston, loosen piston and vent screw counter nut and open vent screw approximately one turn (DO NOT REMOVE), replace O-ring 219-12225-6 and reassemble air cylinder bottom. Reconnect air supply. Operate the pump until lubricant flows from vent screw, then tighten vent screw and counter nut.</li> </ul> <p><b>Important:</b> Pump body must be flush with reservoir base.</p>

**Declaration by the manufacture  
as defined by machinery derective 89/392/EEC,  
Annex II B**

Herewith we declare that the supplied model of

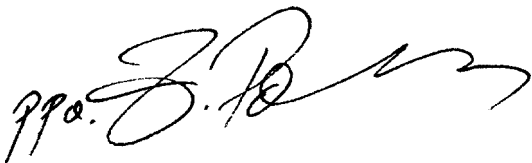
**Pump Model PP.; PPG.;...**

is intended to be incorporated into machinery covered by this directive and must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the directive.

*Applied harmonized standards in particulare*

**EN 292 T1/T2**

**prEN 809**



Walldorf, 29.12.1994 , ppa. Z.Paluncic