



INSTRUCTION MANUAL

MODEL : L B P * * * * * -11 TYPE
MOTOR DRIVEN DRUM-CAN PUMP

Safety Precautions

To ensure safety, carefully read through the following before operating this product.

The precautions below are intended to prevent injury or any other damages, and classified into “  WARNING” and “  CAUTION”.

Be sure to observe the following precautions for safe operation.



Failure to observe the instructions indicated by this symbol may result in death or serious injury.



Failure to observe the instructions indicated by this symbol may result in personal injury or property damage.

WARNING

1. Do not step on or pull the pipes or lubricating devices equipped with this product. You may slip and fall, or damage the lubrication system.
2. Do not disassemble or modify the lubrication devices. Contact us if you have any problems. Should you require maintenance, consult a person qualified to adjust oil pressure.
3. Be sure to turn off the power before maintenance.

CAUTION

1. Protect yourself when handling grease. If grease contacts eyes or skin, eyesight may be severely damaged or skin irritation may result.
2. Regularly inspect the lubrication system for grease consumption, operation tests, etc. Failure to do so may cause bearing damage leading to mechanical malfunction.
3. Use this product within the range of the rated specifications and under normal conditions. Use beyond the range or in an abnormal condition (near heat sources, in explosive atmospheres, etc.) may result in mechanical malfunction or fire.

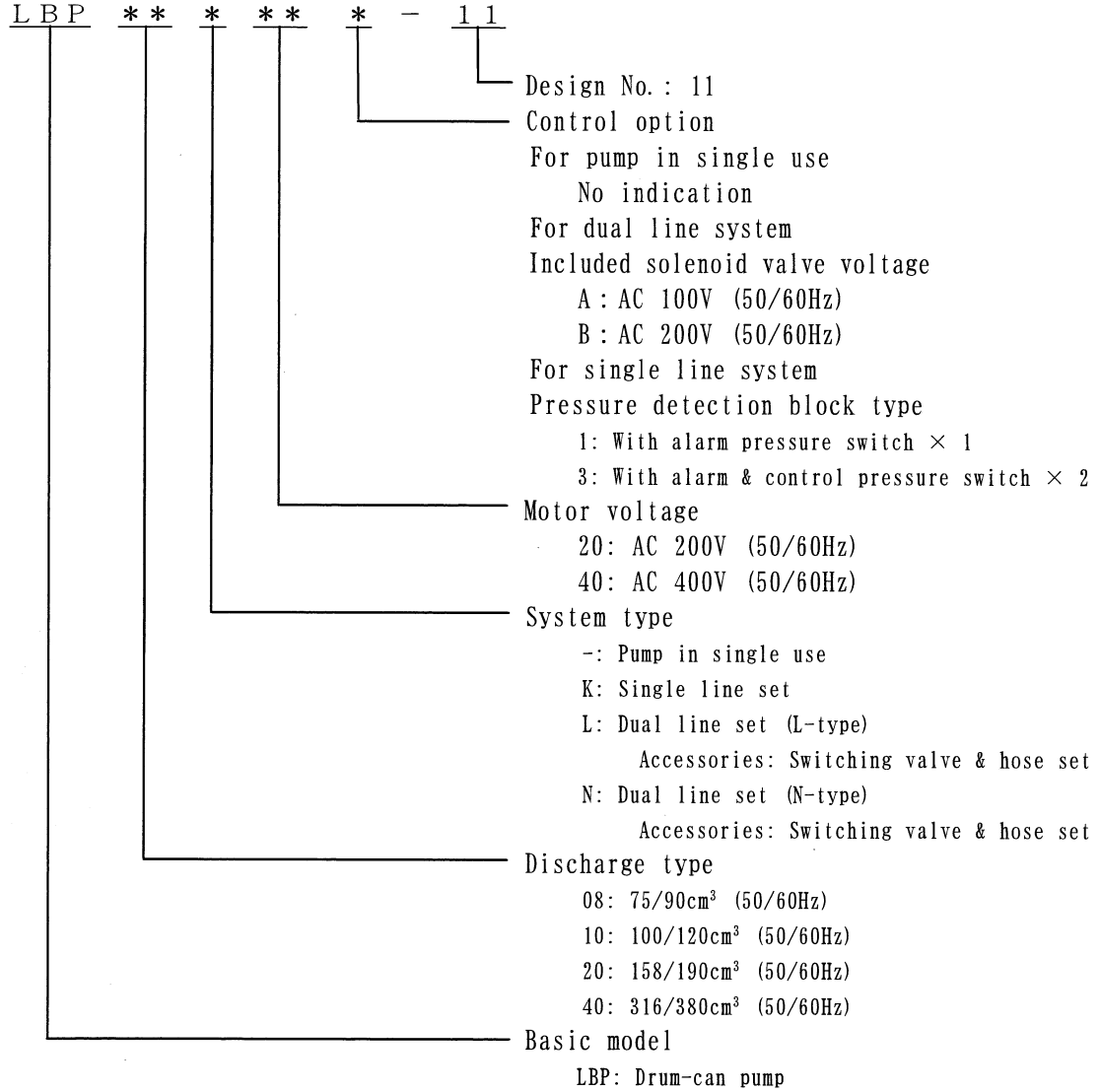
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■ Overview

This electric greasing pump siphons up grease directly from regular drums.

■ Type

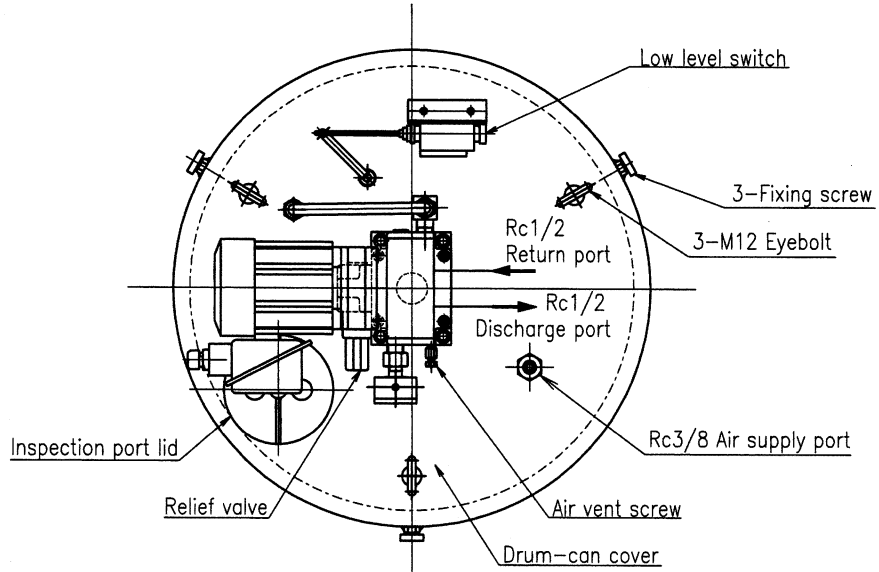


■ Standard specifications

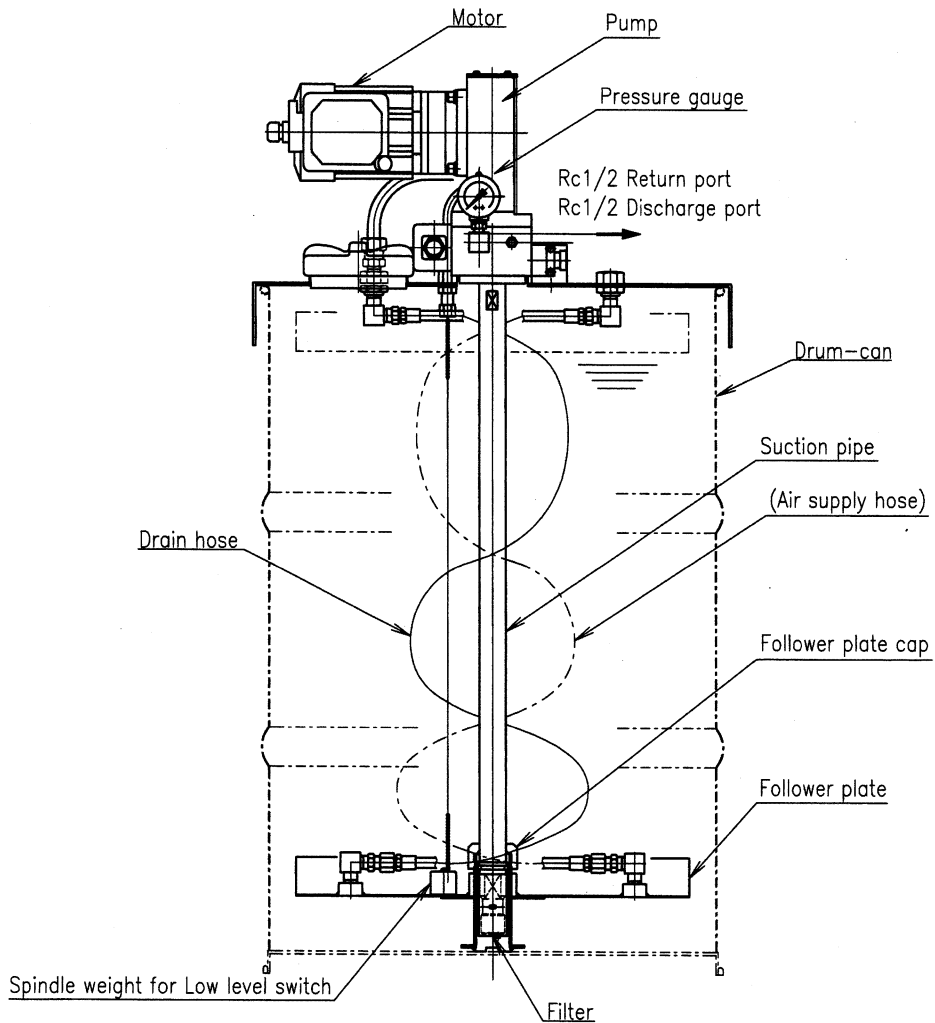
| Model | LBP08 | LBP10 | LBP20 | LBP40 |
|---|--|---------|---------------|---------------|
| Discharge volume (cm ³ /min) (50/60Hz) | 75/90 | 100/120 | 158/190 | 316/380 |
| Maximum working pressure (MPa) | 21 | | | |
| Relief valve pressure (MPa) | 25 | | | |
| Motor specifications (Speed reduction ratio) | 0.2 KW (1/59) | | 0.2 KW (1/43) | 0.4 KW (1/21) |
| Applicable grease | NLGI No. 0 - No. 2 (240 or higher consistency at the service temperature) | | | |
| Weight (kg) | Approx. 65 | | | |

■ Parts (Figure below shows LBP40-20-11)

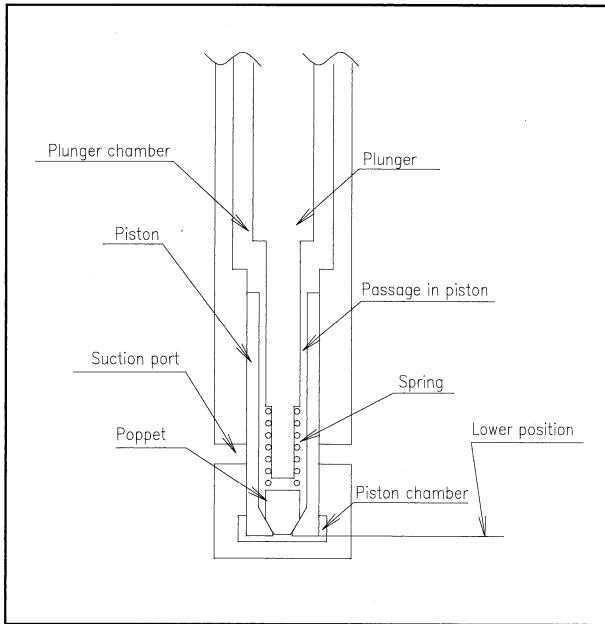
【Top view】



【Front view】

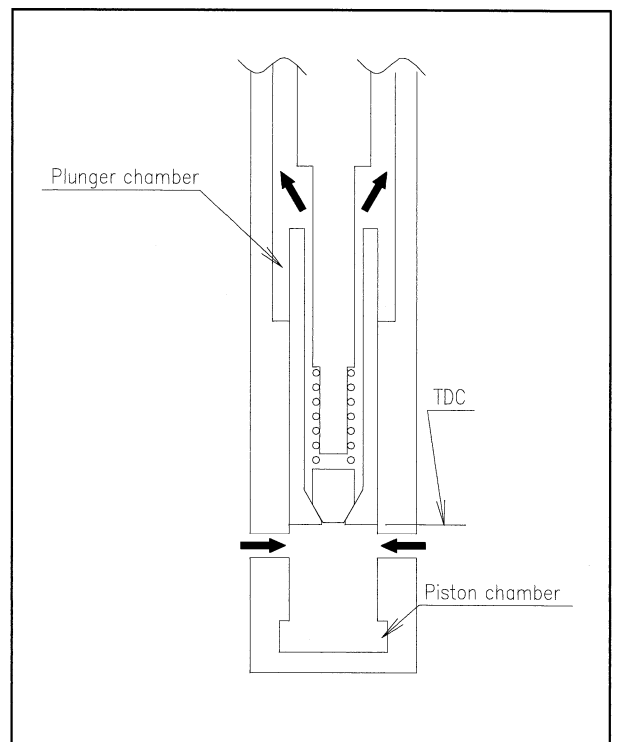


■ Mechanism description (piston section at the lower of suction pipe)



Step 1.

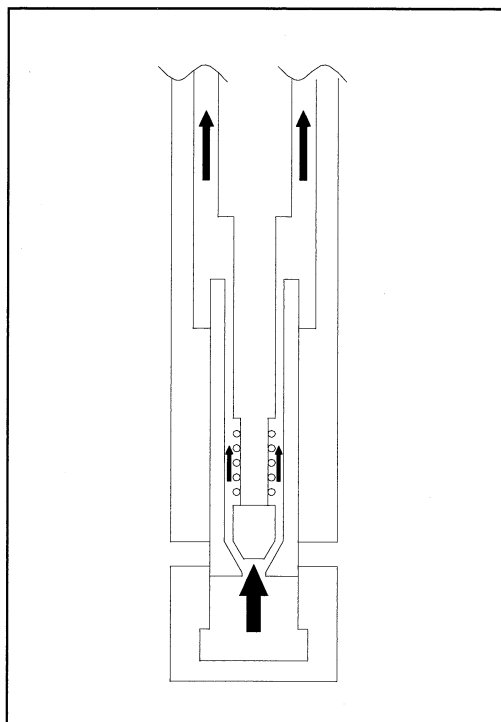
Piston is at BDC. The poppet is pushed by the spring separating the piston chamber from the plunger chamber



Step 2.

The piston is at TDC. The poppet is closed while the piston moves up, and grease in the plunger chamber is discharged through the pump outlet.

When the piston passes the suction port, the piston chamber is filled with grease.



Step 3.

The piston moves down and blocks the suction port. Grease in the piston chamber pushes the poppet open and moves into the plunger chamber through the passage. Grease pumped out by the plunger is discharged through the pump outlet.

■ Operations

1. Pump installation & removal

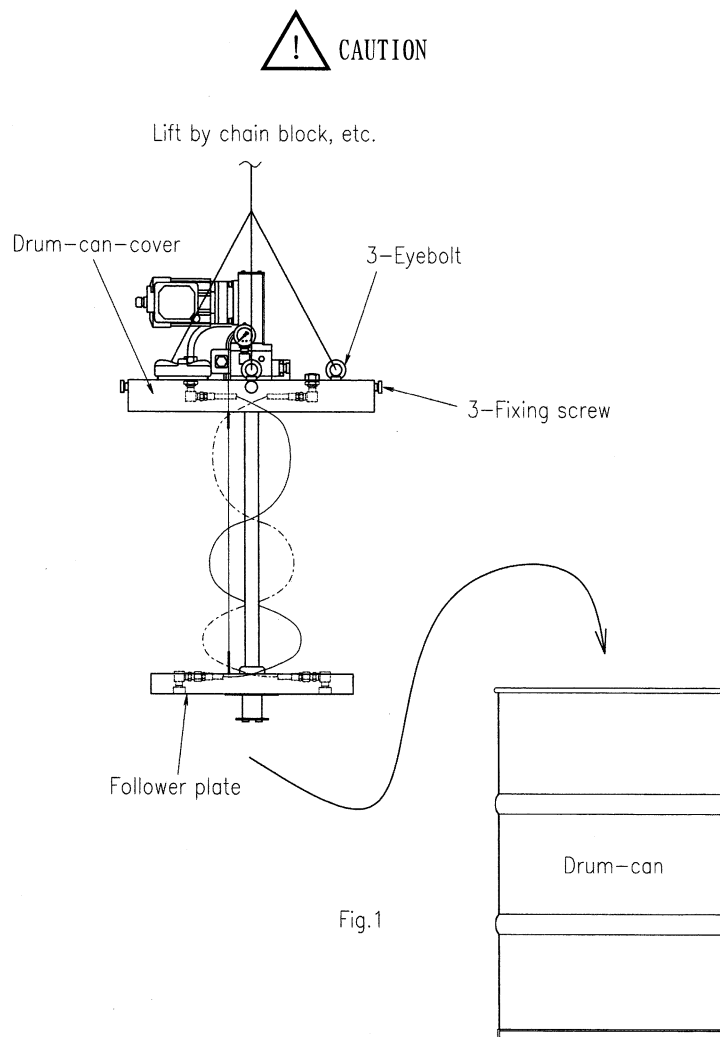
Follow the procedures below for installation and removal the pump when loading or replacing a drum-can.

1) Installation

Note) For part names, refer to page 4/11.

Step 1. Place a new drum-can in an installation location.

Step 2. Fix the LBP pump with three eyebolts on the drum-can cover and lift it up. (Fig. 1)
Make sure to use the eyebolts.



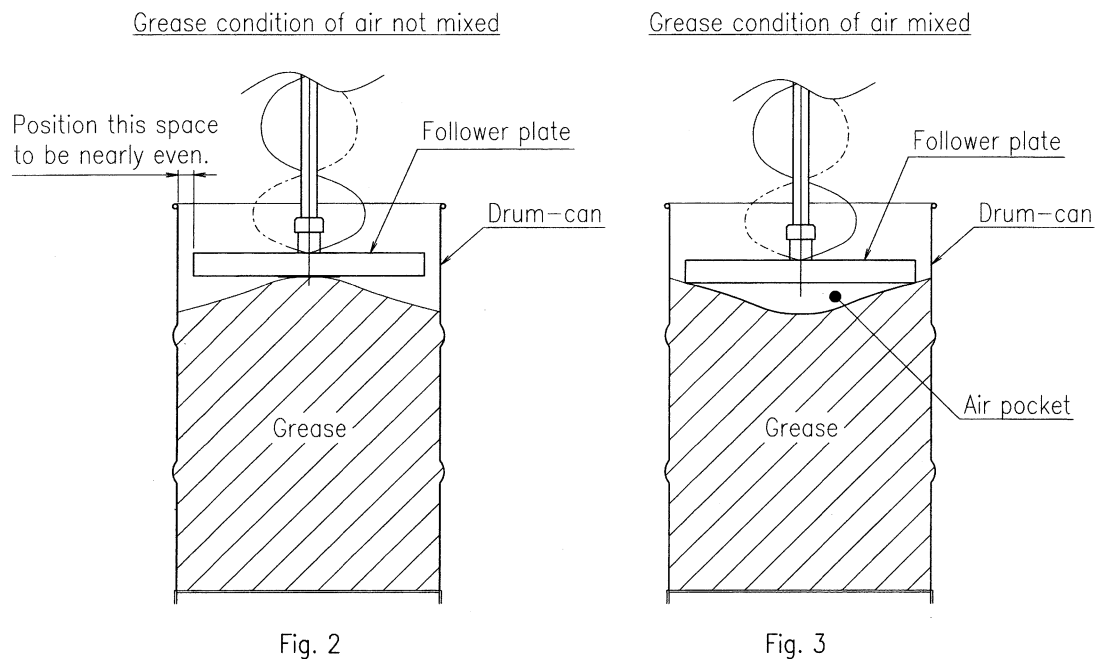
Step 3. Move the LBP pump right above the drum-can.

Step 4. Before the pump contacts the drum, make sure the Spindle weight for Low level switch is in the marked position on the follower plate.

Step 5. After checking the LBP pump is stable on the drum-can, remove the lifting device from the eyebolts.

Notes) Prevention of air mixed

- ① Adjust the pump position as the space between drum-can and Follower plate to be nearly even.
To prevent the air mixed, make the grease to be mountain-shaped in center of drum-can, because the grease spreads out to the edge with being pressed down by bottom of Follower plate, and the surface of grease becomes horizontally. (Fig. 2)
- ② If the grease in center of drum-can forms a hollow, Air pocket appears and may cause air mixed. (Fig. 3)



Step 6. Tighten the fixing screws on the sides of the LBP pump to secure it.

Step 7. Setting the pipes and wires for the LBP pump (required for the first installation). Adjust the length of pipes (hoses) and wires to prevent potential breakage when the pump is lifted up.

Step 8. Release air as described later and start the operation.

2) Removal

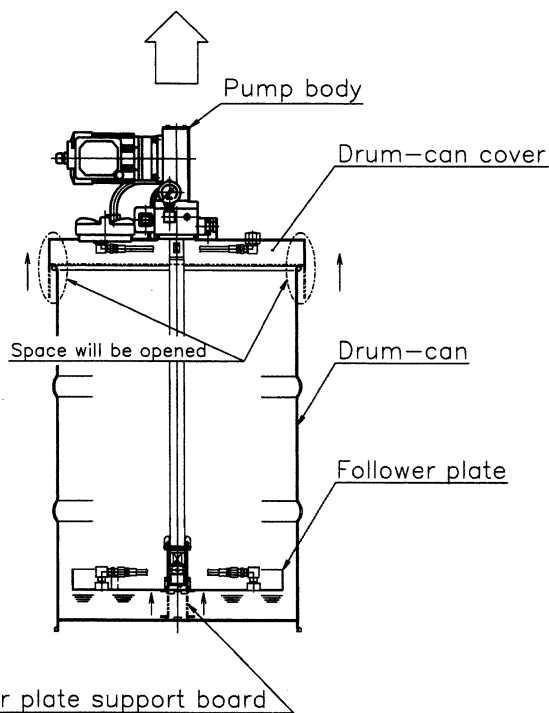
Reverse the installation procedures to remove the pump.

Step 1. Make sure pipes and wires are properly positioned.
(Refer to Step 7 of 1) Installation on page 6/11.)

Step 2. Loosen the fixing screws so that the LBP pump and drum be separated.

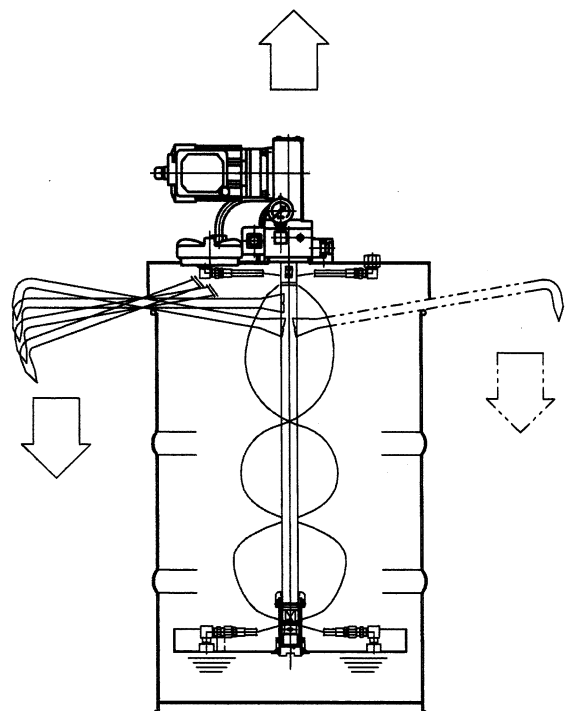
Step 3. Lift the LBP pump up by Chain block, etc.

① Separate Follower plate from grease with inserting and dragging by bars.

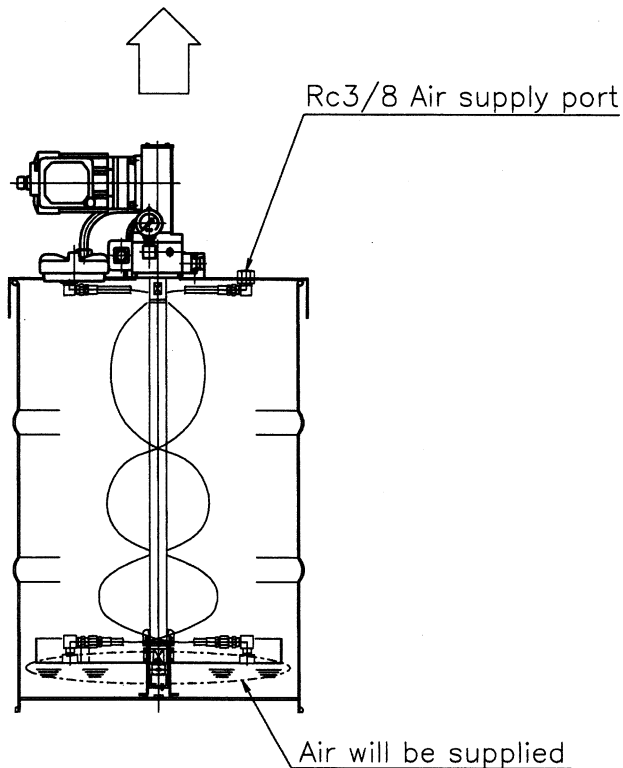


When the pump body is lifted up, the space between Drum-can cover and Drum-can will be opened by sliding up of Follower plate support board.

In case of Drum-can is lifted together with pump body, take pump body out with inserting and dragging by bars between Drum-can cover and Drum-can.



- ② Separate Follower plate from grease with supplying air.



Lift the LBP pump using with pump body and Eyebolts. (Refer to page 6)

Follower plate can be easily separated from grease with supplying air from Air supply port to lower part of Follower plate.



Be sure to use Eyebolts on lifting.

- Step 4. After removing the pump, clean the bottom surface of the follower plate. If the pump is reinstalled with grease left, excess air may enter and time to release air may be lengthened.

2. Preparation

Install the LBP pump to a drum by following steps in **1. Pump installation & removal** on page 6/9, and supply power to the motor to start the operation.

After the first operation or after a drum is replaced, air may enter the pump. In this case, release the air by following the procedures below to ensure proper operation.

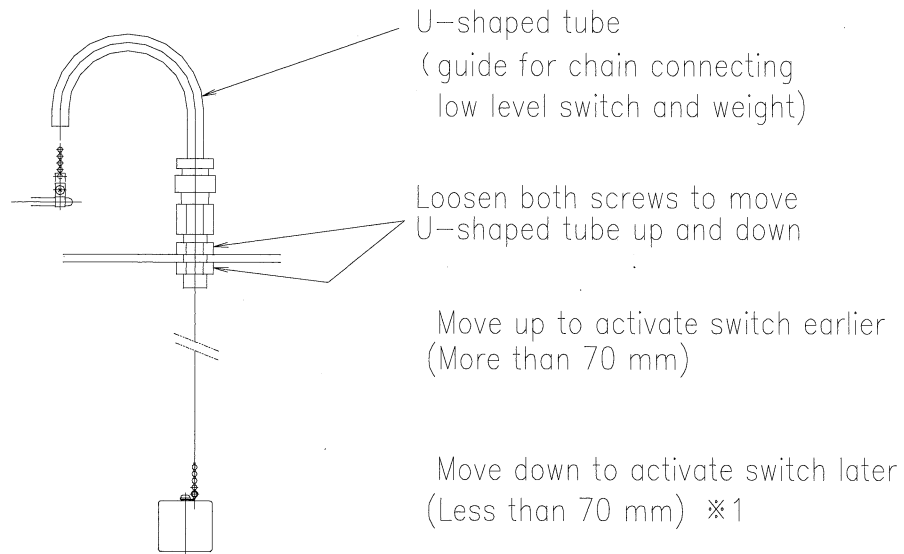
- Step 1. Loosen the air vent screw and operate the pump.
(The pump motor can rotate in both directions.)
(Refer to page 4/9 to locate the air vent screw.)
2. Make sure no air is mixed in grease discharged from the air vent screw and stop the pump.
(Grease looks cloudy when mixed with air.)
 3. Retighten the air vent screw and check that no grease is discharged from the screw section.
(If grease is still discharged, tighten the screw further.)

3. Adjustment of other devices

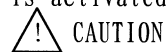
1) Position adjustment for low level switch

The pump comes equipped with a lower level switch which is activated according to the follower plate position (default: approximately 70 mm away from the bottom surface of a drum).

No adjustment is required for normal operation. If necessary, refer to the following for fine adjustment.



Note *1) If the U-shaped tube is set too low to delay the timing of activation, air may enter before the low level switch is activated.



2) Adjustment of relief valve

The relief valve has been adjusted at the factory and readjustment is not necessary. Contact us should you require to make adjustments.

Model name: JR-G01-3L (our product).

■ Trouble shooting

| Problem | Possible cause | Solution |
|--|--|--|
| Pump is running, but pressure does not increase. | <ul style="list-style-type: none"> • Drum is empty • Air is in the pump • Grease leakage • Air vent screw is loose • Piston section is worn *2 • Filter at the lower of suction pipe is clogged *3 | <ul style="list-style-type: none"> • Replace with a new drum • Loosen the air vent screw and discharge grease until no air is left • Check joints, plugs, etc. to locate the leakage source and retighten them. • Tighten the screw firmly • Inspect the section and repair or replace if necessary • Clean the filter |
| Pump does not run | <ul style="list-style-type: none"> • No power is supplied to motor • Foreign substance is inside eccentric bearing | <ul style="list-style-type: none"> • Check wiring to the motor • Remove the pump cover and clean inside if dirty |
| Pump operates, but discharge volume is low | <ul style="list-style-type: none"> • Piston section is worn *2 • Filter at the lower of suction pipe is clogged *3 | <ul style="list-style-type: none"> • Inspect the section and repair or replace if necessary • Clean the filter |

Note) *2 Contact us when inspection, repair or replacement is required.

*3 Disassemble the filter as shown below and wipe with a clean cloth or blow off dust and dirt.

