

FB TYPE MANUALLY OPERATED GREASE PUMP
INSTRUCTION MANUAL

FB-type Grease Pump is the pump of hand type applied to the supply source of the centralized lubricating system which serves optionally concentrating supply of appropriate amount of grease.

1. Main Particulars:

Model FB-4A,6A (standard type)

- Discharge Pressure : 10 MPa
- Discharge Capacity : 7 cm³/stroke
- Reservoir Capacity : (4A) 2 ℓ
(6A) 5 ℓ

Model FB-42A,62A (high pressure type)

- Discharge Pressure : 21 MPa
- Discharge Capacity : 3.5 cm³/stroke
- Reservoir Capacity : Same as above

2. Explanation of Construction and Operation (Refer to Fig. I) :

This pump is operated moving the handle about 40 degrees before and after; a Handle Shaft ① is fitted with the pinion ② suitable for the angle and meshed with the rack cut in the pump Piston ③.

When this piston is moved aside as shown in Fig., the inlet port ① is kept opened. Grease comes into the cylinder from this hole, the inlet port ① is clogged with the movement of the piston by handle operation, the pressed grease forcibly opens the Check Piston ④ and flows into the hole which is running to the Valve Handle ⑤, simultaneously with this, it transfers pressure to the Pressure Gauge ⑥. When the piston moves, grease comes into the cylinder through the inlet port ②, preparing for the next discharge.

The discharge of grease by means of handle operation is held in this repetition.

The grease coming up to the valve handle is to be forwarded to any one of the lines. Under the condition that the valve handle is pushed into as shown in Fig., Line I comes to be a supply line and Line II comes to be an opened line running to the Reservoir ⑦ through the opening hole. When one time of grease supply is finished upon confirmation of the pressure increase in the line by response of pressure gauges or handles, the valve handle is to be taken out and the supply line pressure be

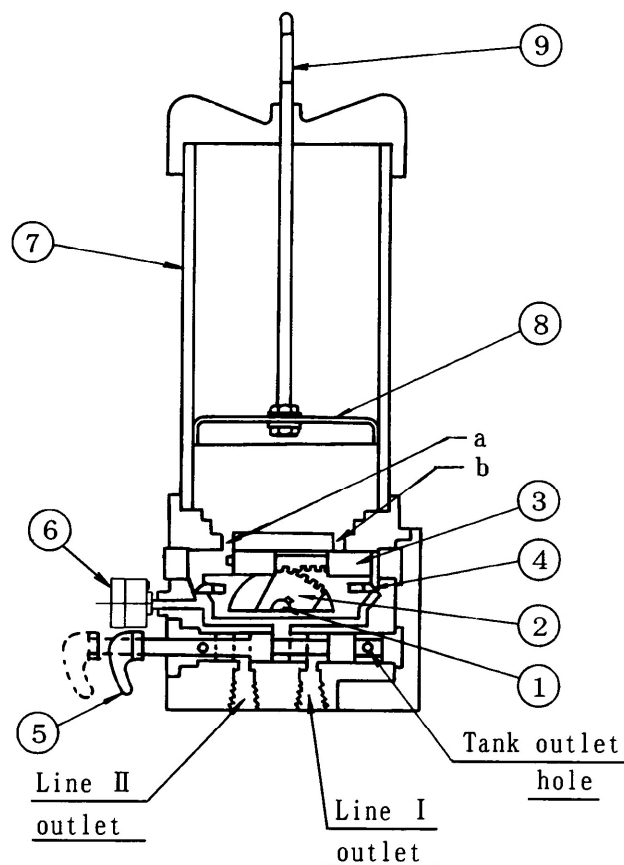


Fig. I

opened to the tank to prepare for the next operation.

Inside the tank is equipped with a Follower Plate ⑧ for keeping horizontal oil level according to grease consumption, and it is so made as to confirm the grease quantity inside the tank according to the position of the Follower Plate Rod ⑨ connected to the follower plate.

3. Precautions for Handling:

- 1) When shifting grease into the tank, connect it to the filler connection of the pump side by means of a filler pack or transfer pump. If grease should be poured into with the upper cover removed, poor suction or other troubles will be caused due to the mixture of air and dust.
- 2) Apply Grease No.0 (more than 350 mixture) or No.1 (310 to 340 mixture) for centralized lubrication.
If the grease or cup grease of more than No.2 should be applied with, flow resistance will become big or separation in the pipes will occur, becoming hard for smooth operation.

- 3) When one time operation is finished, change the lever position of the valve handle and keep the line pressure opened, without fail.
- 4) It is possible to increase the pressure by handling much more than required, but unnecessary increase of the pressure is not allowed. Care should be taken to the possibility of deformation in the pump or other machinery.
- 5) When reusing after long time suspension operate the handle and remove the grease discharge first.

4. Maintenance and Adjustment:

- 1) Keep record of the number of operation by handle and pressure increase required, when the total distributing valve operation is finished in course of the normal operation. (different in summer and winter)
- 2) Abnormal increase in the pressure should indicate leakage from pipes, poor operation of the check piston of a pump or mixture of air. On the contrary, abrupt increase in the pressure indicates poor operation of a distributing valve or clogging in way of the main pipe.
- 3) Air ventilation is the air vent valve untightened keeping it until the grease comes out continuously. (Fig. II)

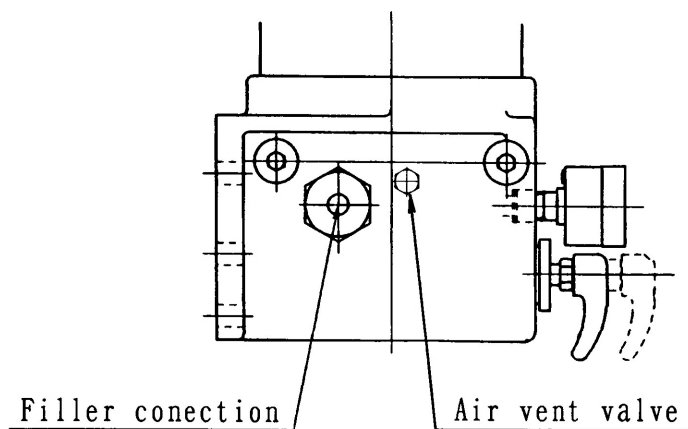


Fig. II

- 4) In cleaning a check valve, disassemble it referring to the instruction manual plate fitted on the tank and reassemble after full washing the check sleeve, plunger piston, spring, etc.