L-0195-2E

Manual Lubrication Pump

EGH－C, EGH－P

INSTRUCTION MANUAL

- For your safety, read and understand this manual thoroughly before handling the pump.
- Always keep this manual at a designated place for easy access.

LUBE CORPORATION

Introduction

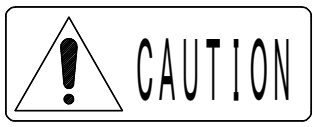
■ System Application

This Manual Lubrication Pump "EGH-C, EGH-P" is designed to lubricate each point on a machine by delivering a relatively small amount of grease through a metering valve.
Do not use this system for any other purpose.

■ Marks used in Manual

In this Manual, safety precautions are provided using the marks below to prevent accidents which might cause injuries to human bodies. Be sure to carefully read these safety precautions to understand the contents thoroughly before handling the pump.

Indicates a potentially hazardous situation which, if ignored, could result in death or serious injury.



Indicates a potentially hazardous situation which, if ignored, may result In minor or moderate injury.

In addition to the above, the marks below will also appear in this Manual. Please read the following explanation in order to handle the pump correctly.

Indicates reference information or points to which special attention should be paid while handling the pump. If ignored, the pump and/or the machine could be damaged.

Indicates reference information or points which are helpful for handling the pump.

Indicates a reference clause.

■ Questions/Contacts

If any question or doubt arises concerning the contents of this Manual, please contact the following.

■ Japan
LUBE Corporation
(Tsukuba Factory)
15-1, Okubo, Tsukuba-shi, Ibaraki-pref, 300-2611
TEL: 029-877-5506 FAX: 029-865-3176

■ China
LUBE LUBRICATING SYSTEM (SHANG HAI) CO., LTD
C, 3F, 88 Taigu Road, Waigaoqiao Free Trade Zone,
Shanghai TEL: 021-5868-3818 FAX: 021-5868-3880

■ U.S.A
LUBE USA, Inc.
781 Congaree Road, Greenville, S.C. 29607
TEL: 800-326-3765 FAX: 864-242-1652

■ Changes in Specifications

Details of all illustrations and specifications in this Manual are subject to change without prior notice for improvement and development of the pump.

■ Resale or Leasing

At the time of resale, leasing out or lending out the pump to the third party, make sure to include with the pump all the manuals and any other documents supplied with the pump.

■ Disposal of Pump/Grease

Make sure to dispose pump or grease as designated by

National laws and/or local regulations.

Table of contents

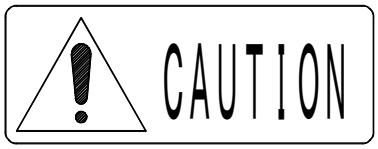
1. Safety Precautions

1-1 Basic safety precautions

- Carefully read this Manual and understand the contents before handling the pump.
- Keep this Manual at a designated place for easy access at all time.
- This pump is handled by only personnel who have the knowledge and skill of its installation and adjustment.
- Never modify or change this pump without prior permission from LUBE.

1-2 Labels

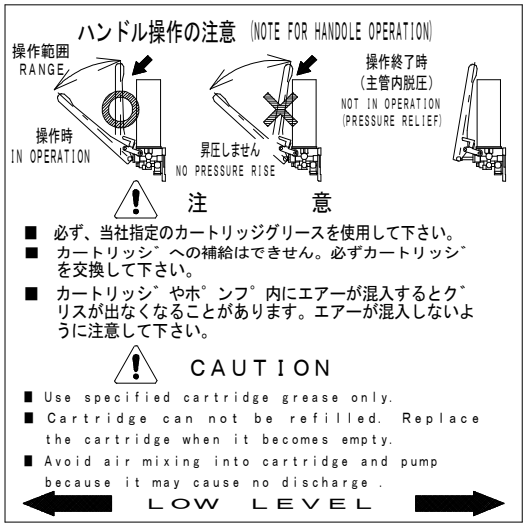
The following labels are affixed on the pump. If any label gets damaged or becomes illegible, contact LUBE immediately. A new one will be supplied at your own cost.



- Strictly observe the instructions on the labels affixed to the pump.

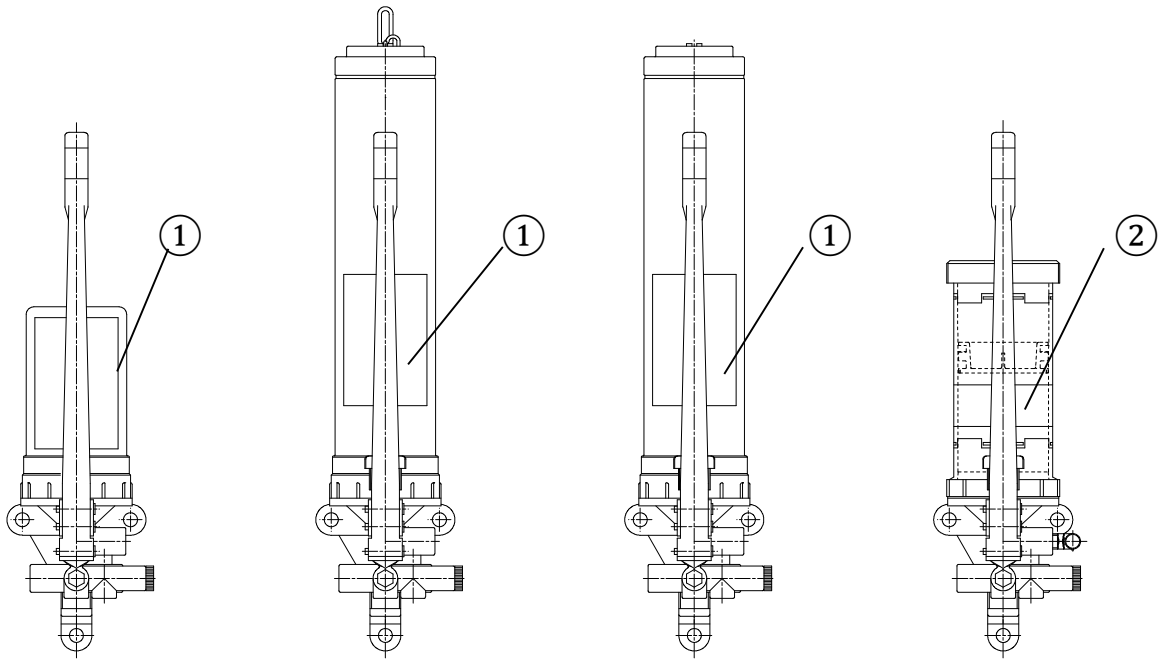
1-2-1 Type of labels

①EGH-2C, EGH-4C-B, EGH-4C



②EGH-3P

1-2-2 Location of labels



EGH-2C EGH-4C-B EGH-4C EGH-3P

2. Specification and Outline

2-1 Specification

Pump	Model	EGH-2C	EGH-4C	EGH-4C-B	EGH-3P
	Discharge volume (mL/stroke)	1			
	PDI※1(MPa)	10			
	Tank	Cartridge		Cartridge (with spring)	Effective volume 260mL Plastic tank
recommended NLGI consistency		0,1※2		0,1	000,00,0,1※2

※1 PDI Positive Displacement Injector

※2 NLGI No.1 grease is possible to use at temperature above 20℃.

2-2 Product code List

(1) EGH-C, EGH-P model

Code No	Model	Tank type	Depressurization
103780	EGH-2C	Cartridge	Handel operation
103781	EGH-4C-B	Cartridge (with spring)	〃
103782	EGH-4C	Cartridge	〃
103783	EGH—3P	260mL tank	〃

(2) Tank/Cartridge cover

Code No	Tank Volume (Effective)	Material
530377	260mL	PCTA
539131	400mL cartridge type	PP
539133	400mL cartridge type (with spring)	PP
539208	200mL cartridge type	PP

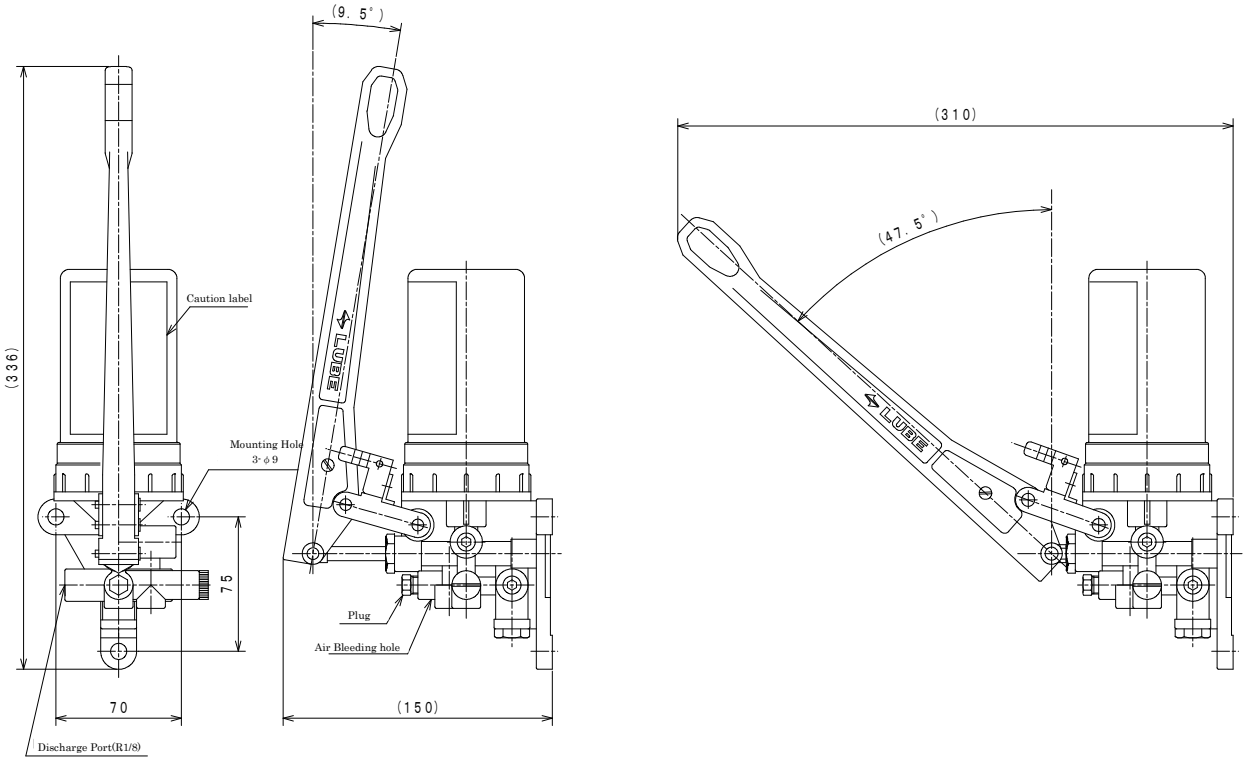
(3) Water proof cap for cartridge (accessory)

Code No	Purpose of use	Material
530492	Using cartridge type (with spring) outdoor	PP

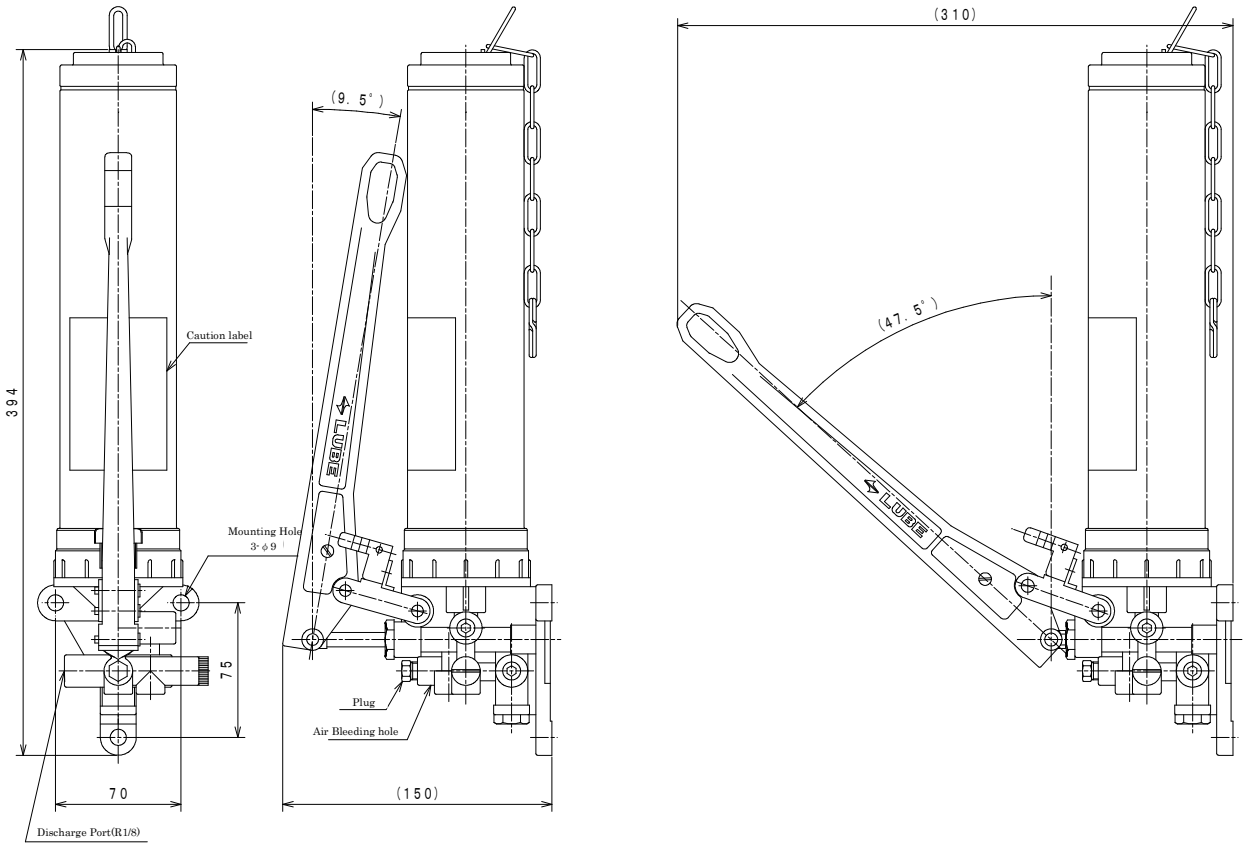
(4) Pressure gauge (accessory)

Code No	Pressure Range	Connection thread
109147	25MPa	R1/8

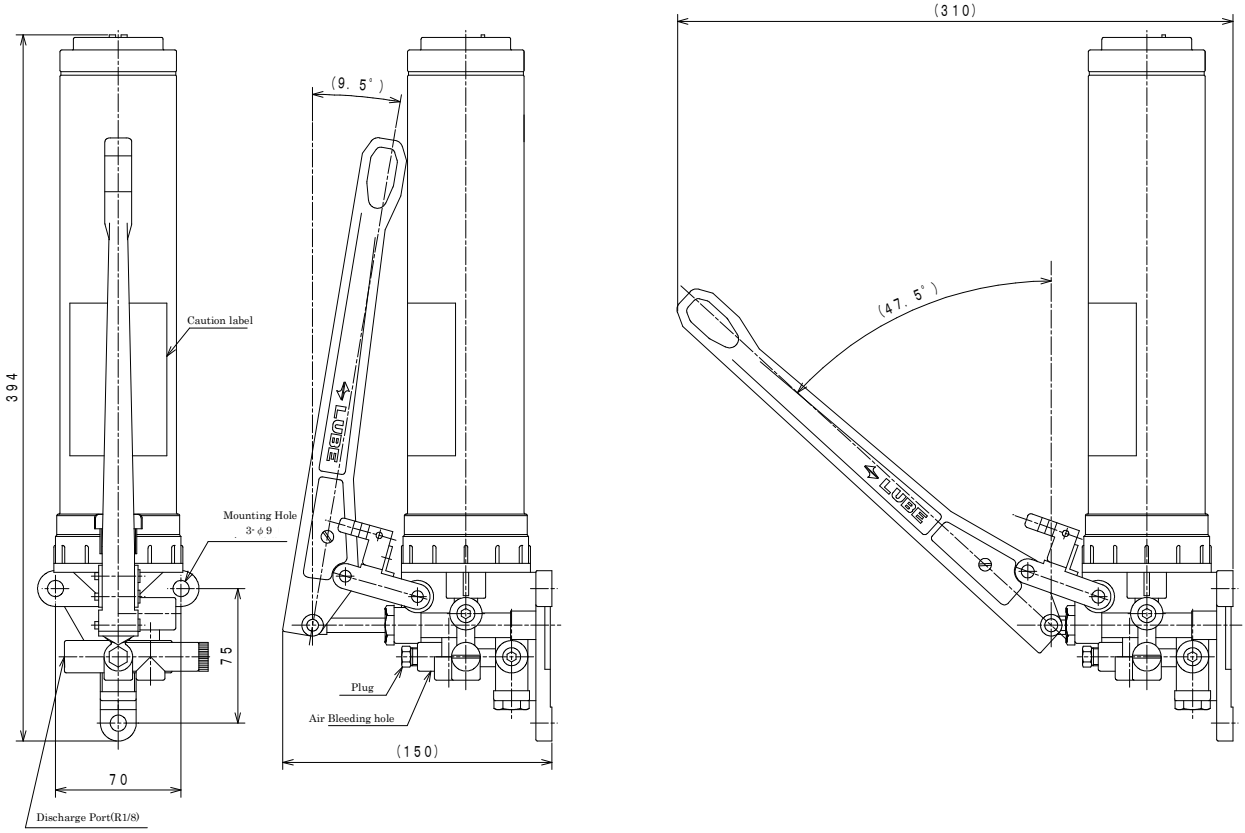
2-3 Name of each component



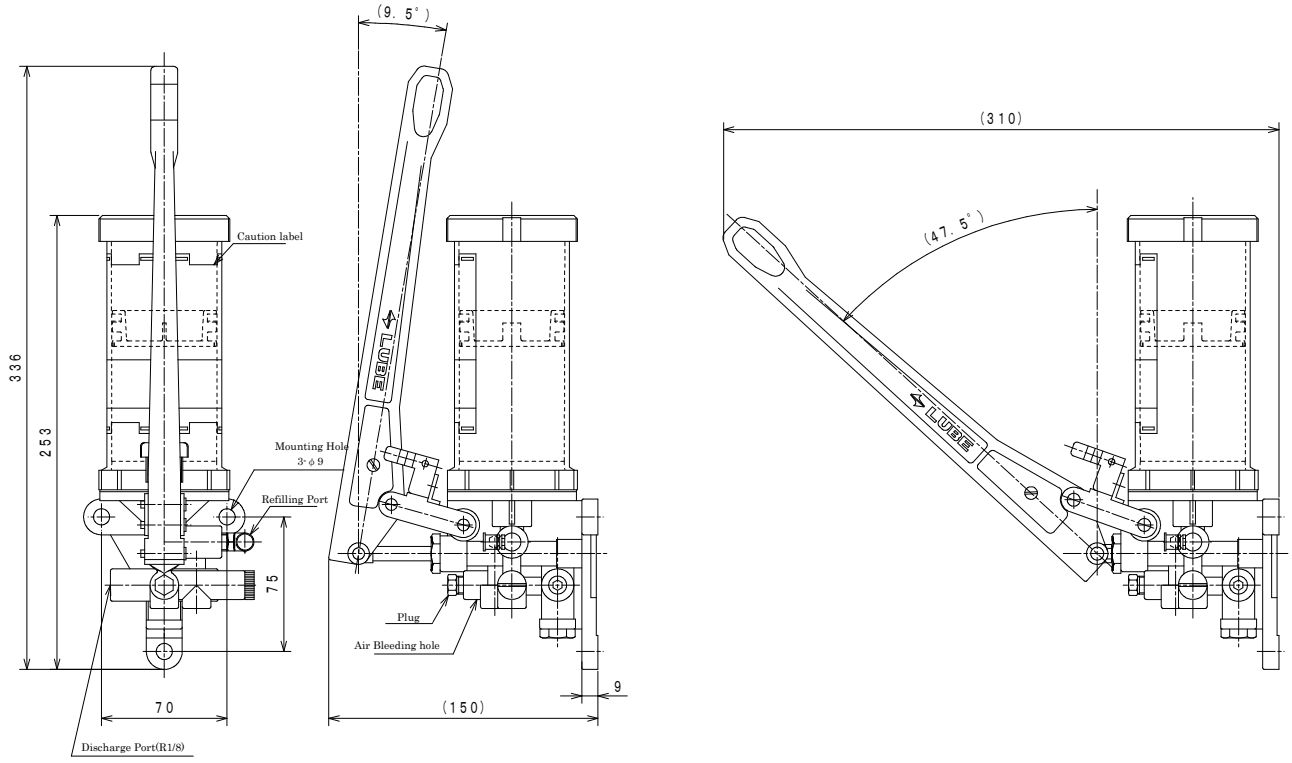
EGH-2C



EGH-4C-B


(310)
(9.5°)
(47.5°)
394
Caution label
Mounting Hole
3-φ9
75
70
Plug
Air Bleeding hole
(150)
Discharge Port(R1/8)
LUBE

EGH-4C


(310)
(9.5°)
(47.5°)
336
253
Caution label
Mounting Hole
3-φ9
Refilling Port
75
70
Plug
Air Bleeding hole
9
(150)
Discharge Port(R1/8)
LUBE

EGH-3P

3. Installation

3-1 Environmental requirement

Be sure to use pump in the following environment

- Ambient temperature: +5 – +40°C
- Humidity: 35 – 85%RH

3-2 Mounting unit

Make sure to fix the pump firmly. Insufficient mounting of the pump could fall and cause injury.

Be sure to fix the pump against a vertical and flat surface, which can sustain its weight sufficiently. Mount and fix the pump firmly using three (3) M8 bolts through φ9 holes.

LUBE recommends anti-vibration rubber to be applied when the pump is exposed to vibration.

Choose an installation location that the handle can be operated easily.

3-3 Tubing connection

Connect tubing from the machine to the discharge port (Rc1/8).

Use tubing good for the pressure 20 MPa or higher.

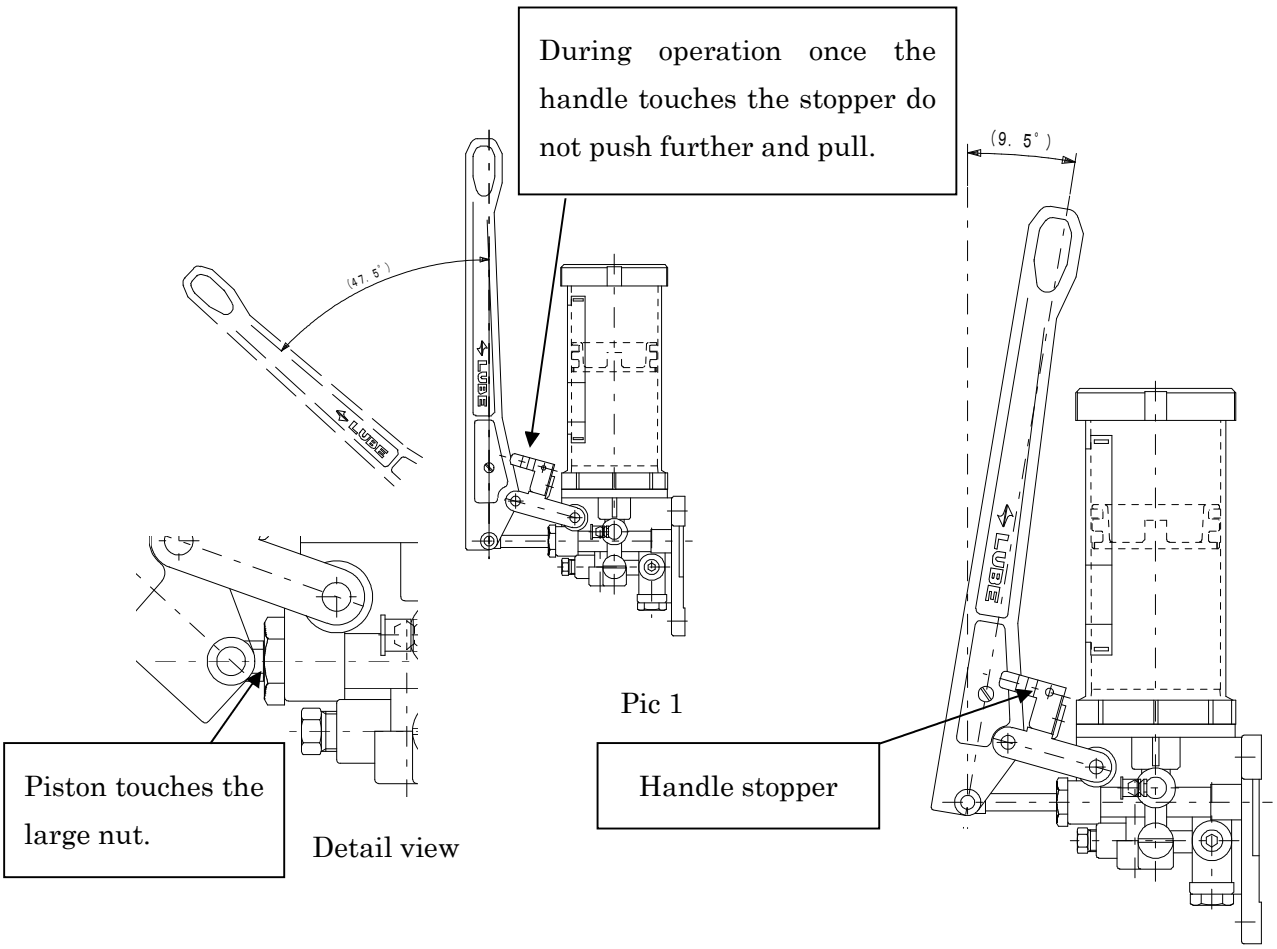
First, hand tighten the joint and then tighten it 2.5 (two and a half) to 3 (three) turns with a spanner.

Proper torque for tightening: 7.1 N･m

After connection, make sure there is no grease leakage from the joint.
Make sure to bleed air from the tubing and the pump after connection.

Refer to "6-1 Bleeding air."

4. Pump Operation



Pic 1

Pic 2

(1) Remove the handle from the stopper.
(As shown in Pic 1)

(2) Operate the handle back and forth for greasing.

Pull the handle towards you to discharge grease and push it to suck new grease from the cartridge.

(3) The discharge is completed when you are unable to pull the handle further.
(As show in Pic 1, the handle can be pulled until the piston touches the large nut. Refer detail view)

(4) During operation when pushing back the handle, make sure to stop the handle as soon as it touches the tip of the stopper.
(The handle will almost be parallel to the tank at this point.)

(5) After finishing greasing, push the handle until it reaches the state as shown in pic 2 to depressurize. In this state the handle is locked in the stopper, at this point the pushing action should be stopped.

5. Refilling Grease

5-1 Grease refilling method

Pump Model	Code No	Grease Refilling method
EGH-2C	103780	200mL Cartridge
EGH-4C-B	103781	400mL Cartridge
EGH-4C	103782	400mL Cartridge
EGH-3P	103783	260mL Tank

(1) Cartridge type

Replace the cartridge with as soon as cartridge end falls to the L level. Do not refill empty cartridge for re-use. Failing to do may cause cartridge to burst. At time of cartridge replacement refer to "5-2 Replacement of grease cartridge". Be careful that air or contamination do not enter the pump during cartridge replacement.

(2) 260mL Tank

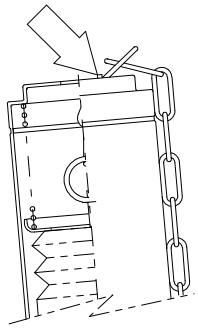
Refill the grease as soon as the follower plate inside the tank falls to the L level. Do not use any other port except the refilling nipple for replenishing the grease. Failing to do so may cause pump failure. Be careful that air or contamination do not enter during tank refilling.

5-2 Replacement of grease cartridge

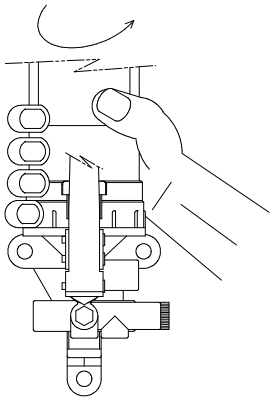
After the specified amount of grease has been consumed and the cartridge has fully collapsed, follow the procedure below to replace the cartridge.

・Do not use non-recommended cartridges.
Recommended cartridges
MP-0, MP-1, FS-2

(1) Pull up the chain (so that new cartridge goes in),
And latch the chain on the hook of the cover head (arrow part in the right pic)



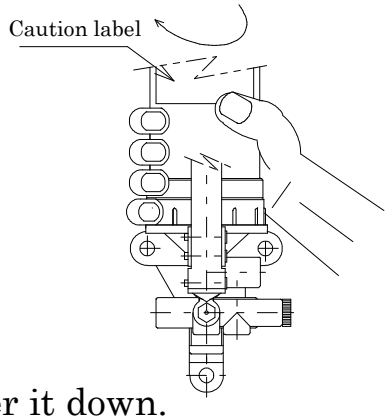
(2) Turn the cover with your hands and take it off of the pump.



(3) Remove the empty cartridge and install the new cartridge.

Do not allow air or contamination to enter.
Use grease of same brand and grade.

(4) Once again mount the cover and tighten it clockwise by hands.
(Make sure the label faces the front.)



(5) Unlatch the chain, and slowly lower it down.

Place the entire chain inside the cover.
Steps 1 and 5 do not apply for models without spring.

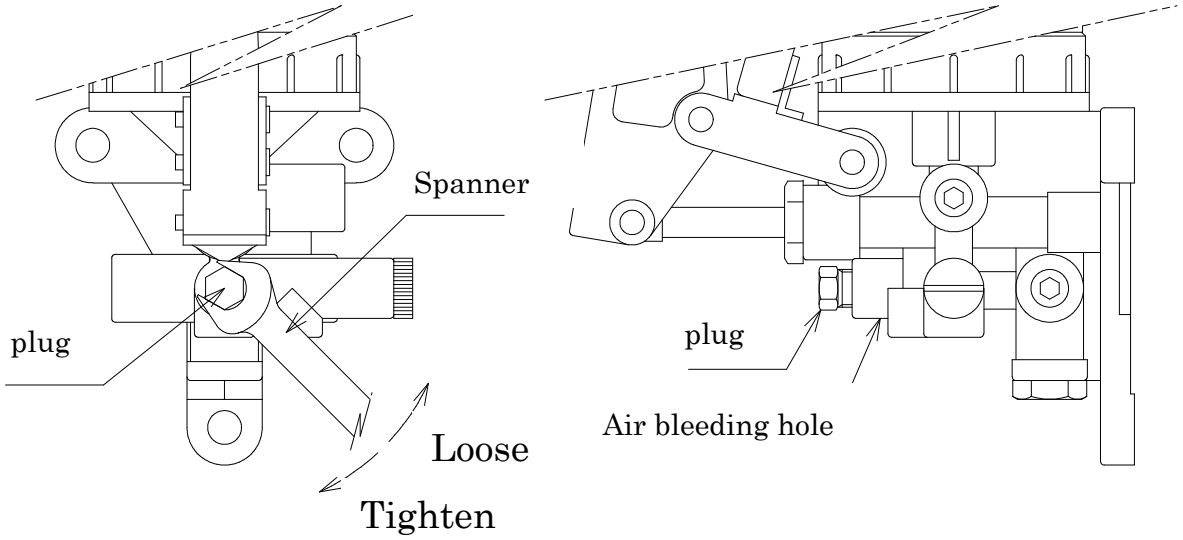
6. Maintenance

6-1 Bleeding air

Make sure to bleed air when air is introduced into the pump by following the procedure mentioned below.

WARNING	Air and grease often splash out from air bleeding hole. Wear safety glasses during air bleeding.

1) Loose the plug (roughly one turn CCW) with a spanner, etc.



2) Pull and push the pump handle until air stops to come out of the pump.
・Air and grease comes out form the hole located at under the pump.

3) Manually tighten the plug Clockwise and tighten it.

6-3 Troubleshooting

When trouble occur, take the measures as defined in the chart below.

Trouble	Cause	Measures to take
No grease discharge from the pump.	Little to no grease left in the tank or the cartridge	 Replenish with grease of the same brand and grade as the grease currently used, or replace the cartridge with a new one  Refer to "5. Refilling grease"
	Air in the pump	Bleed air  Refer to "6-1 Bleeding air"
	Insufficient handle operation	Make sure to pull the handle till it stops at the end.
Pressure in main tubing will not build	No grease discharged from pump due to any of above causes	 Refer to above measures
	Air in the tubing	Remove the air bleeding plug in the distributor at the end of main tubing (no. of plugs change depending on the size of system) and operate the pump to bleed air
	Contamination present at the ball seat part of the relief valve	Please contact us.
	The discharge pressure of pump is low due to defective setting of the relief valve	Please contact us Relief valve pressure is set at the factory before shipping

Trouble	Cause	Measures to take
Pressure in main tubing will not build up	Grease leaking from pump discharge port or pipe connection parts on machine (Due to looseness or excessive tightness)	Tighten them with proper torque or re-pipe them ☞ For proper torque, refer to "Tightening level for connecting Sections" of the next page
	Damaged tubing	Replace damage tubing
	Pushing the handle too far towards to the tank, causing the depressurization port to open	Follow the correct handle operation range
Air in the system	Air in the system due to above reasons	Refer to above measures for "Air in the pump" and "Air in the tubing"
	Due to a low level of grease in the tank or the cartridge, air is introduced into the pump	Replenish with grease of the same brand and grade as those of the currently used grease or replace the cartridge with a new one. After that, bleed air
The distributer (the valve and the grease supply pipe) does not discharge grease	Clogged distributor(s)	Replace distributor(s)
	No grease is filled in the grease supply pipe/tubing	Fill pipe/tubing with grease at installation
Pressure in pipe does not decrease properly	Lubrication point or distributor is clogged	Replace the parts at the clogged lubrication point Also disassemble the distributor, inspect, and replace them
	Crushed tubing	Replace the tubing
	NLGI# of grease and ambient temperature do not match	Check NLGI# and ambient temperature
	Handle is not returned to the depressurization position	Fix the handle to the depressurization position

■ Tightening level for connecting sections

	Tightening level	Reference torque (N·m)
OD 4 mm nylon pipe (Valve discharge port)	Hand tighten compression bushing until it stops and then tighten it 2/3 turn with a spanner, etc.	3.5
OD 6 mm nylon pipe	Hand tighten compression bushing until it stops and then tighten it 2/3 turn with a spanner, etc.	3.5
OD 6 mm copper tubing & steel tubing (Undercut joint)	Hand tighten the nut part until it stops and then tighten it 1/4 turn with a spanner, etc.	21
OD 8 mm copper tubing & steel tubing (Undercut joint)	Hand tighten the nut part until it stops and then tighten it 1/4 turn with a spanner, etc.	25
Taper screw for tubing Rc1/8 (Pump discharge port & Junction)	Hand tighten the undercut joint until it stops and then tighten it two and a half to three turns with a spanner, etc.	7.1

Appendix. Grease contamination: Causes and measures

■Causes

Causes for contamination can be divided into two categories.

○Before the completion of installation

Foreign particles in the tubing or pump tank.

(Manufacturing defects of the assembly parts or connecting parts and unconformity during construction.)

○During operation

Foreign particles from outside or generated inside of the system.

(Condensation of the moisture in the air due to change in temperature or separation of grease ingredients.)

■Measures

1. Keep the grease for refilling in the proper place.
   If the system is installed and/or grease is stored outdoor, proper care must be taken since introduction of dust or rain into the grease would lead to system malfunction.

2. At time of cartridge replacement be careful that dust/contamination does not stick to the connection port (cartridge type)

3. At time of reservoir refilling be careful that dust/contamination dose not stick refiling nipple. (260mL Tank)