High pressure control valve

Models 740, 3050, 81495 and 82393, 7 500 psi *(517 bar)* rated

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* Indicates change.

Contents

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Safety*

Read and carefully observe these installation instructions before installing/operating/troubleshooting the assembly. The assembly must be installed, maintained and repaired exclusively by persons familiar with the instructions.

Install the assembly only after safety instructions and this guide have been read and are completely understood.

Adequate personal protection must be used to prevent splashing of material on the skin or in the eyes.

Always disconnect power source (electricity, air or hydraulic) from the pump when it is not being used.

This equipment generates very high grease pressure. Extreme caution should be used when operating this equipment as material leaks from loose or ruptured components can inject fluid through the skin and into the body. If any fluid appears to penetrate the skin, seek attention from a doctor immediately.

Do not treat injury as a simple cut. Tell attending doctor exactly what type of fluid was injected.

Any other use not in accordance with instructions will result in loss of claim for warranty or liability.

- Do not misuse, over-pressurize, modify parts, use incompatible chemicals, fluids, or use worn and/or damaged parts.
- Do not exceed the stated maximum working pressure of the pump or of the lowest rated component in your system.
- Always read and follow the fluid manufacturer's recommendations regarding fluid compatibility, and the use of protective clothing and equipment.
- Failure to comply may result in personal injury and/or damage to equipment.

Explanation of signal words for safety

NOTE

Emphasizes useful hints and recommendations as well as information to prevent property damage and ensure efficient trouble-free operation.

⚠ CAUTION

Indicates a dangerous situation that can lead to light personal injury if precautionary measures are ignored.

⚠ WARNING

Indicates a dangerous situation that could lead to death or serious injury if precautionary measures are ignored.

⚠ DANGER

Indicates a dangerous situation that will lead to death or serious injury if precautionary measures are ignored.

⚠ WARNING

Do not operate equipment without reading and fully understanding safety warnings and instructions.

Failure to follow warnings and instructions may result in serious injury.

NOTE

Do not operate equipment without wearing personal protective gear.

Wear eye protection. Protective equipment such as dust mask, nonskid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

⚠ WARNING

Do not allow any body part to be trapped between follower and barrel.

Body parts can be crushed by follower as follower lowers into barrel.

Failure to comply may result in death or serious physical injury.

⚠ WARNING

Do not allow fluid to leak onto floor when removing follower from barrel. If spill occurs, clean any fluid on floor before installing a new barrel.

Failure to comply may result in personal injury.

⚠ WARNING

Do not use equipment to supply, transport, or store hazardous substances and mixtures in accordance with annex I part 2-5 of the CLP regulation (EG 1272/2008) or HCS 29 CFR 1910.1200 marked with GHS01, GHS06 and GHS08 hazard pictograms shown:

Failure to comply may result in death or serious personal injury.

* Indicates change.

Owner/operator responsibility

It is the owner/operator responsibility to properly use and maintain this equipment.

The instructions and warnings contained In this manual shall be read and understood by the owner/operator prior to operating this equipment.

If an owner/operator does not understand English, the contents of this manual shall be explained in the owner/operator native language to assure the owner/operator comprehends.

It is the owner/operator responsibility to maintain the legibility of all warning and instruction labels.

The owner/operator shall retain this manual for future reference to Important warnings, operating and maintenance instructions.

Description

The control valve is designed to control the flow of lubricant from high pressure lubricant pumps.

Operation

Before using the valve, always make sure the air pressure is set correctly to operate the lubrication pump. Only a small pressure on the control valve handle is required to obtain lubricant flow from the nozzle.

The control valve dispenses lubricant when the handle (**5**) Is depressed and the pull rod (**15**) and ball retainer (**18**) move up, compressing the friction spring (**17**), allowing lubricant pressure to unseat the steel ball (**19**) and lubricant to flow through the control valve. The ball retainer (**18**) limits the travel of the steel ball (**19**) and the lubricant flow rate is determined by the distance the handle is depressed.

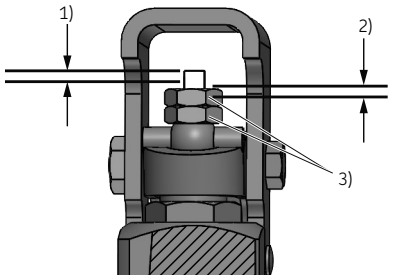
When the handle (**5**) is released, the friction spring (**17**) returns the handle to its normal position and causes the ball retainer (**18**) to seat the steel ball (**19**) against the check seat (**20**) stopping the lubricant flow through the control valve.

⚠ WARNING

Failure to heed the following warnings may result in personal injury and/or property damage.

- **Always** determine the correct air pressure to operate the lubrication pump.
- Some air pressure operated pumps can develop pressure over 11 000 psi *(758 bar)*. This control valve and nozzle extention only are rated at 7 500 psi *(517 bar)* and should not be operated above that pressure. When this control valve is used with a whip hose, the pressure rating is further reduced to the rating of the whip hose. The supply hose rating and any fittings to the control valve must also be considered.
  To determine the air pressure to operate the lubrication pump at, simply divide the rated pressure of the lowest rated component on the down stream side of the pump by the lubricant to air pressure ratio of the pump. Example: If a whip hose is attached to the control valve is the lowest rated component and has a rating of 4 500 psi *(310 bar)* and if the lubrication pump is a 50:1 pump, divide 4 500 psi *(310 bar)* by 50 to determine the correct air pressure setting (4 500 / 50-90 psi *(310 /3,4 - 6,2 bar)*). Set the air regulator that controls the air to the 50:1 pump to 90 psi *(6,2 bar)* or less.
- **Never** point the dispensing valve at any part of the body or at another person.
- **Never** try to stop or deflect material from the dispensing valve, leaking connection or component with your hand.
- **Always** relieve pressure from the system before servicing.
- **Avoid** contact with the nozzle.
- **Always** attach the spring guarded end of a whip hose to the grease coupling and the non-spring guarded end to the control valve or gun.

Fig. 1*



1) Rod may protrude 5/32 in *(4 mm)* maximum
2) 1/32 in *(0.8 mm)* minimum travel, 1/16 in *(1.6 mm)* maximum travel.
3) Adjusment nuts
* Indicates change.

Maintenance

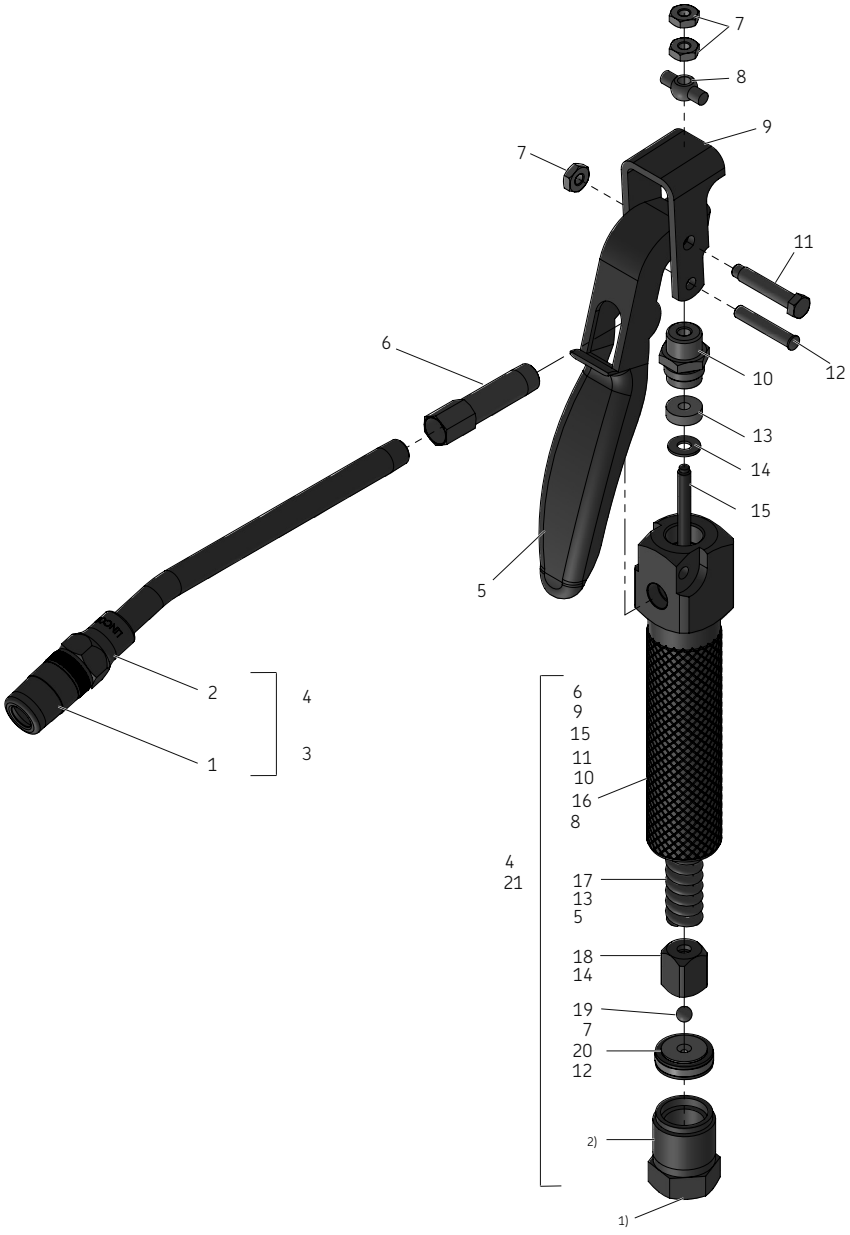
If lubricant continues to flow from the coupler after the handle is released, the steel ball (**19**) is not seating against the check seat (**20**).

Remove and Inspect the check seat (**20**) and the steel ball (**19**). If the steel ball is not perfectly smooth, replace it. The check seat has a ball seat on both sides. If the ball seat being used Is rough, worn or pitted, invert the check seat and reassemble the control valve. If both sides of the check are damaged, replace the check seat and the steel ball.

Refer to **fig. 1** after assembly, the adjustment nuts at the top of the control valve should be adjusted. To prevent damage to the check seat, do not adjust for less than 1/32 in pull rod travel.

Fig. IPB 1*

Model 740



1) Inlet
2) Coupling nut
3) See **Coupling nut and inlet** table **page 7** for desired coupling nut and inlet threads.
* Indicates change.

Coupling nut and inlet*

Model	Coupling nut	Inlet
81495	11396	3/8 in NPTF

* Indicates change.

Parts list*

Item	Description	Part	Quantity	Item	Description	Part	Quantity
1	Hydraulic coupler	5845	1	13	Valve stem packing	35007 [1)]	1
2	Nozzle extension	62028	1	14	Packing washer	48218 [1)]	1
3	Hydraulic coupler and extension	5834	1	15	Pull rod	11362 [1)]	1
4	Control valve	82393	1	16	Control valve body	N/A	1
5	Handle	45788	1	17	Friction spring	55029	1
6	Nozzle adapter	10181	1	18	Ball retainer	11363	1
7	Locknut	51043	3	19	Steel ball	66255 [1)]	1
8	Pivot bar	12828	1	20	Check seat	11364 [1)]	1
9	Toggle link	45820	1	21	Control valve	81495	1
10	Packing gland	12826	1				
11	Toggle pivot screw	11837	1				
12	Toggle pin	66177	1				

[1)] Included in repair kit 82157.
* Indicates change.

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Warranty

The instructions do not contain any information on the warranty.
This can be found in the General Conditions of Sales, available at:
www.lincolnindustrial.com/technicalservice or www.skf.com/lubrication.

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July 2022 · Form 403742 Version 2