

Operation and Maintenance Instructions

for

CSK Motor-driven grease pump

NANJING BIJUR MACHINERY PRODUCTS, LTD.

Tel: 86-25-85801188 Toll Free: 800-8286000 Fax: 86-25-85802288

Website: [http:// www.bijur.com.cn](http://www.bijur.com.cn) E-mail: china@bijur.com.cn



Before installing or operating this product, please read this manual carefully. Failure to follow instructions can result in damage to the product and/or serious bodily injury.



Before performing service to product, always turn off and disconnect electrical power.



When connecting product, make sure that unit is securely and adequately grounded. Failure to ground properly may cause serious injury.

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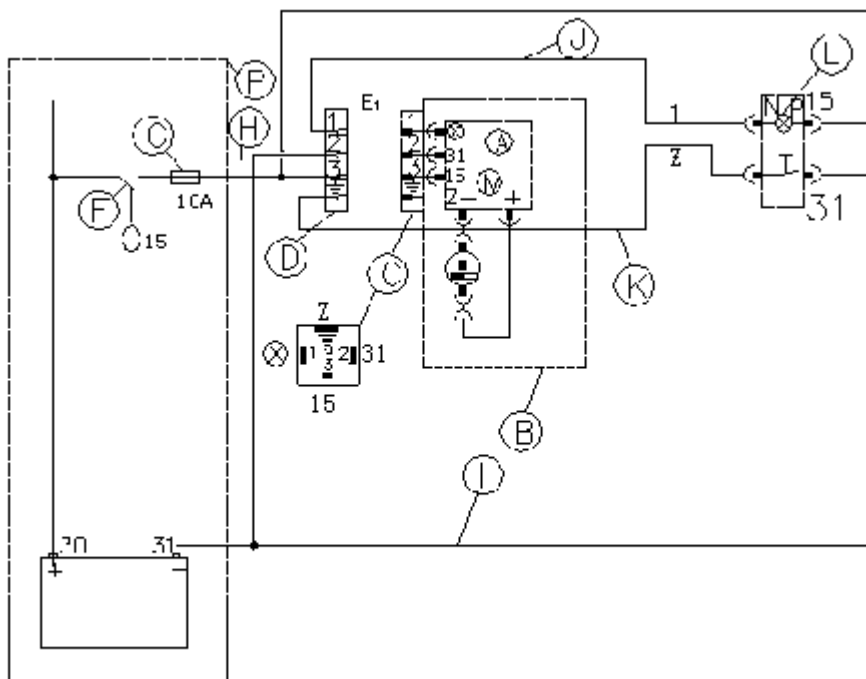
1. General Description

CSK is designed for grease lubrication and driven by DC motor, it is ideal for single line system. There is a built-in controller which monitor the pump to deliver rated amount of lubricant to lubrication point in right time. Each pump outlet has an over pressure protection valve and each outlet can support a lubrication system independently.

2. Principle

1. Principle of pump:

CSK grease pump is driven by a DC motor, it drives a worm and worm wheel then rotation is transferred to a eccentric wheel which drives the piston to move back and forth, the lubricant is sucked into the pump body and then discharge at the outlet.



- A_ Controller
- B_ Pump Housing
- C_ DIN Connector
- D_ DIN Connector
- E1_ Pump without illuminated push button
- F_ Driving switch

G_ Fuse (10A)

H_ Cable

I_ Cable (Option)

J_ Cable (Option)

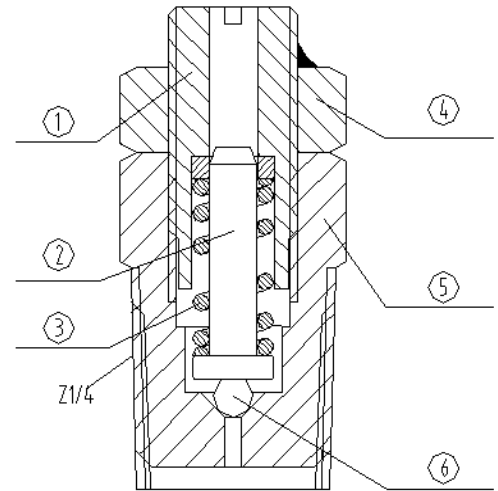
K_ Cable (Option)

L_ Illuminated push button (Option)

P_ User

1. Principle of protection valve

Protection valve will open when the system pressure is over 25Mpa (set when assembled). Adjusting screw 1 drives the spring 3 to press steel ball 6 through pole 2. When the system pressure go up to 26Mpa, pressurized lubricant will push steel ball 6 from the bottom of valve body 5, then the lubricant dump at the hole of adjusting screw. This can protect the pump from broken.

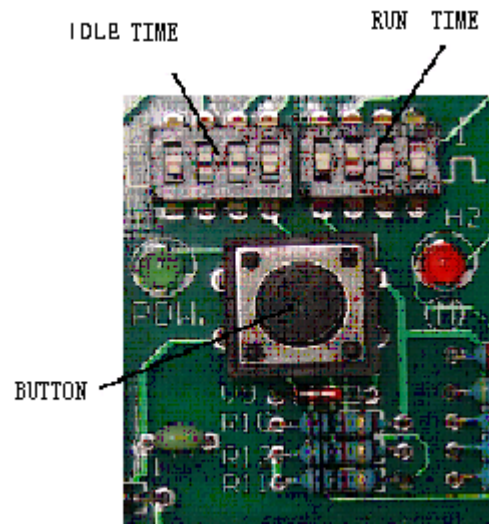


2. Principle of controller.

IDLE TIME SETING:

jumpswitch minutes/hours	switch position			
	1	2	3	4
4 / 1	●	○	○	○
8 / 2	○	●	○	○
12 / 3	●	●	○	○
16 / 4	○	○	●	○
20 / 5	●	○	●	○
24 / 6	○	●	●	○
30 / 7	●	●	●	○
34 / 8	○	○	○	●
38 / 9	●	○	○	●
42 / 10	○	●	○	●
46 / 11	●	●	○	●
50 / 12	○	○	●	●
54 / 13	●	○	●	●
58 / 14	○	●	●	●
62 / 15	●	●	●	●

“●”: ON ; “○ ”: OFF

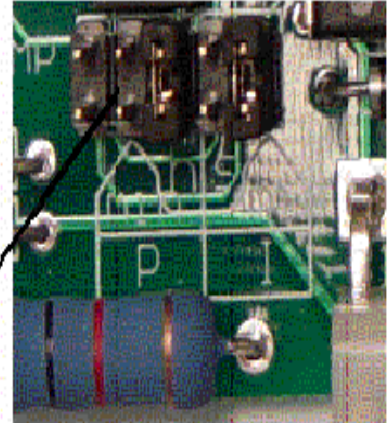


RUN TIME SETING:

jumpswitch seconds/minutes	switch position			
	1	2	3	4
8 / 2.5	●	○	○	○
16 / 5	○	●	○	○
24 / 7.5	●	●	○	○
32 / 10	○	○	●	○
40 / 12.5	●	○	●	○
48 / 15	○	●	●	○
56 / 17.5	●	●	●	○
64 / 20	○	○	○	●
72 / 22.5	●	○	○	●
81 / 25	○	●	○	●
89 / 27.5	●	●	○	●
97 / 30	○	○	●	●
105 / 32.5	●	○	●	●
113 / 35	○	●	●	●
121 / 37.5	●	●	●	●

“●”: ON ; “○ ”: OFF

JUMP SWITCH



3. Specifications

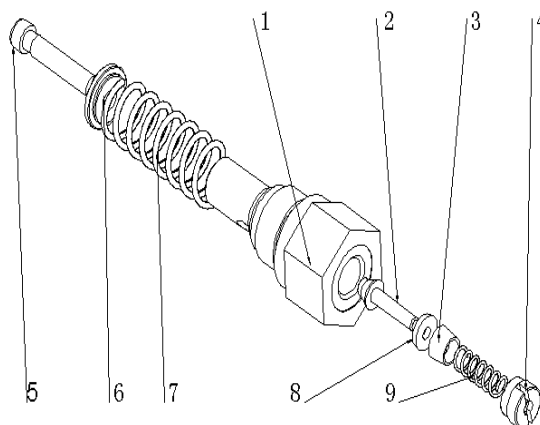
- | | |
|---|--------------|
| 1. Output/per element: | 5.5 ml / min |
| 2. Max system operating pressure: | 25 MPa |
| 3. Viscosity range: | NLGI 000#~2# |
| 4. Outlet thread spec: | NPT 1/4 |
| M12×1.5、 1/4NPTF and Rp1/4 are also available | |
| 5. Motor power: | 50W |
| 6. Motor voltage: | 24VDC |
| 7. Reservoir capacity: | 2L (Plastic) |
| 8. Protection: | IP65 |
| 9. interval: | 4Min~15h |
| 10. Running time: | 8s~37.5Min |
| 11. Current when loaded: | 3A |

4. Installation

1. Operation pressure of the pump is adjusted to 25Mpa in factory. Running time is 5 minutes and interval time is 6 hours, both can be adjust by operator.
2. Connect the cables of controller according to the wiring diagram, be sure the + pole and – pole are not reversed, it is correct if the green light shines and the pump runs. Otherwise the pump runs reversely and the light will not shine, cut off the power and correct the cables.
3. Clear and dry the pipeline then connect all pipes, be sure no leakage at all junctions.
4. Fill the reservoir with clear grease to the grease level.
5. Locate the pump and distributors where is easy to install and maintain.
6. Fill the pipeline with grease to exhaust air before the distributors are mounted, then run the pump

5. Maintenance

1. Fill the reservoir slowly at appointed inlet with grease filter, Let the pump run without load until it discharge and then connect the pipe line.
2. Must use clean grease in the viscosity range.
3. Fill the reservoir slowly at appointed inlet with grease filler.
4. Do not disassembly the pump body if not necessary, this can avoid air getting into pump.
5. Do not fill grease over the liquid level line.
6. Do not incline the pump overly or make it reversal.
7. Check the protection valve termly.
8. How to clean the piston:

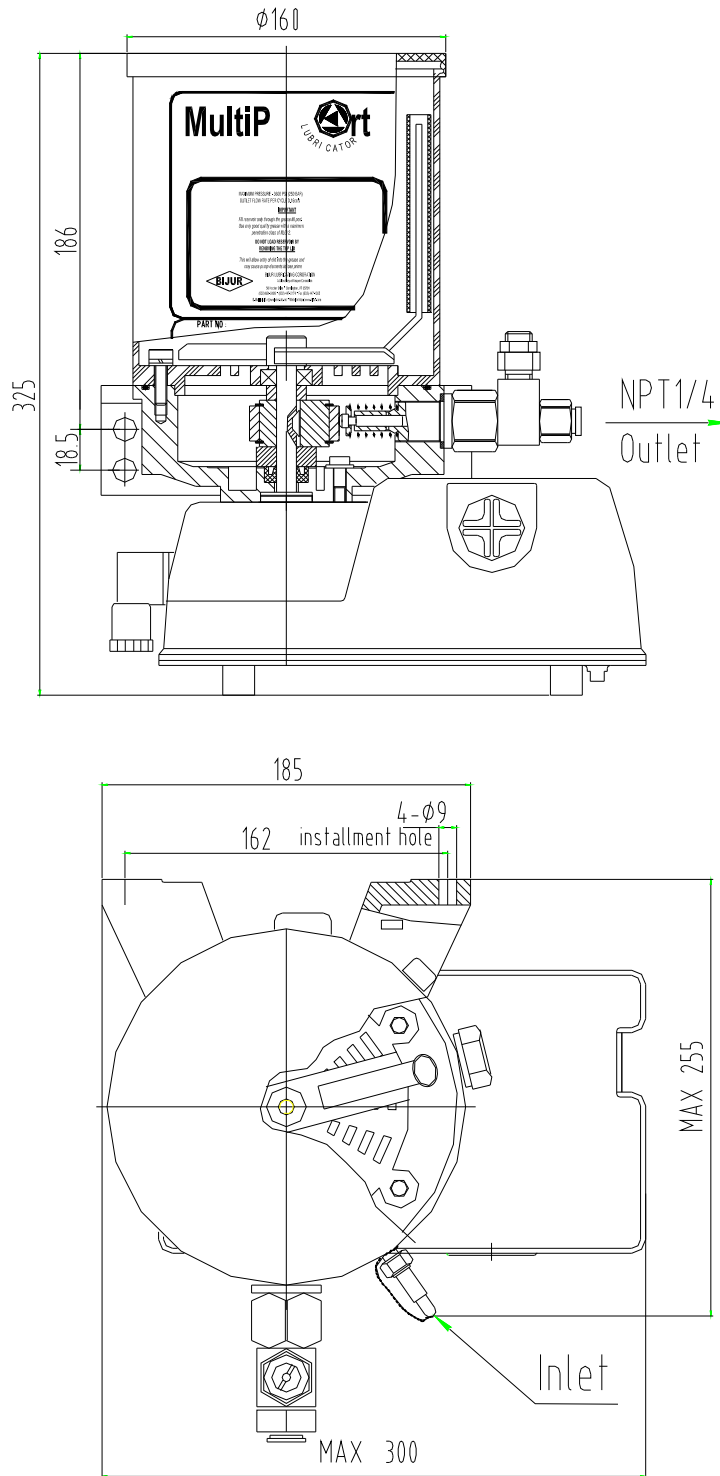


Disassemble the outlet assembly when the system pressure is 0Mpa, disassembly part4 with screw driver and take out part 9, 3, 8 and 2 with a nipper, then take out part 5, 6, 7. Wash part 2, 8, and 1 with coal oil then assemble orderly.

6. Troubleshooting

Symptom	Possible cause	Remedy
No discharge at outlet	1. Motor can't rotate	Check power and motor
	2. Motor rotate reversely	Connect the wires according to the wiring diagram
	3. Air at the bottom of reservoir	Exhaust air
Pressure can't build	1. Leakage at junctions	Check the pipeline
	2. Pump body broken	Contact Nanjing Bijur

7. Outline



Product Quality Feedback Sheet

Customer					
Order No.					
Contact		Tel			
Address					
Part No.					
Model No.		Quantity			
Date Code		Installation data			
Satisfaction Level	1.Satisfied	2.Commen	3.Dissatisfied		
Quality Problems					
Affection	1.Installation	2.Debug	3.Precision	4.Performance	5.Ustility
	6.Reliability	7.Life	8.Maintenance	9.Enviroment	10.Other
Requirement	1.Fax	2.Repairing	3.Assistant to debug	4.Send to repair	
	5.Return to repair	6.Reject	7. Compensation	8.Others	
Suggestion or Other Requirements					

Signature

Date

Instruction (1) The sheet is written by customer as one of bases to improve product quality or dispose product quality problem.

(2) Please select from column of 'Affection' and 'Requirement'

(3) Please send the sheet to NANJING BIJUR MACHINERY PRODUCTS, LTD
QUALITY DEAPARTMENT

9 Heng Tong Road Nanjing Economic & Technical Development Zone Nanjing China 210038

Toll free:800 828 6000 Fax: 025-85802299 E-MAIL: china@bijur.com.cn