

SHIMGE[®]

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SERVICE MANUAL

REFUELING PUMP

Model:ZY



- Warning
- Ground motor before connecting to power supply.
 - Do not touch the pump while it is running.
 - Do not run the pump without water.

SHIMGE PUMP INDUSTRY GROUP CO., LTD.

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VI. Trouble Shootings

Failure	Cause analysis	Troubleshooting method
The pump fails to pump oil out.	<ol style="list-style-type: none"> 1. Connect reversely the positive pole (+) and the negative pole (-) . 2. The pump body lacks lubrication when first using. 3. Air leaks in suction pipe . 4. The suction line is too long or the suction head is too high. 5. Mechanical seal leaks severely. 6. The outlet pipe is closed. 	<ol style="list-style-type: none"> 1. Connect correctly the positive pole (+) and the negative pole (-). 2. Add a little pumped oil before starting. 3. Find the leakage and seal it. 4. Lower the suction head, and shorten the suction line. 5. Change mechanical seal 6. Open the outlet pipe.
The flow is insufficient	<ol style="list-style-type: none"> 1. Supply voltage is low or power is not sufficient. 2. The control valve loosens and deviates from original position. 3. Two end faces of the vane are severely worn. 4. Application range of head is too high. 5. Foreign body clogs the oil inlet filter screen . 	<ol style="list-style-type: none"> 1. Enhance supply voltage and power. 2. Readjust and lock the control valve. 3. Repair or change the vane. 4. Lower application range of head. 5. Remove the foreign body.
The pump gives out heat	<ol style="list-style-type: none"> 1. Load voltage is too high. 2. Safety valve is effecting and the pressure is too high. 3. The bearing is severely worn. 	<ol style="list-style-type: none"> 1. Work within application range of head 2. Regulate the pressure of safety valve 3. Change the bearings
Vibration noise is too loud	<ol style="list-style-type: none"> 1. The pump base is not stable. 2. Cavitation of pump occurs. 3. Pump body and motor are not on the same bearing. 	<ol style="list-style-type: none"> 1. Reinforce the base. 2. Change working environment . 3. Regulate them to be on the same bearing.

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I. Product Overview

ZY series self-absorption refueling pump mainly applies to the refueling of mechanical equipments in mining machinery, agricultural machinery and engineering machinery such as bull dozer, excavator, road roller and loader and the refueling and oil transportation of self-contained power supply of automobile. The pump has a stable performance, fast self-absorption speed, high head, great flow, small volume, which makes it convenient for installation and carrying. It is a kind of efficient, energy-saving, safe and ideal pump for oil transportation.

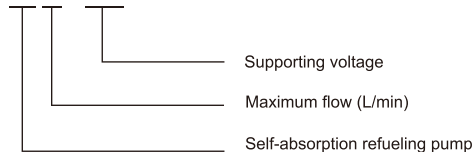
II. Main Technical Parameters

Model	Power supply	Q.max. (L/min)	H.max. (m)	Suction Max. (m)	Rated Power (W)	Current (A)	Rated Speed (r/min)	Range of Head (m)	Outlet (mm)
ZY50-12DC	DC12V	50	15	8	120	18	3000	0~10	25
ZY50-24DC	DC24V	50	15	8	150	9	3000	0~10	25
ZY40-220AC	220V 50Hz	40	15	8	120	0.9	2800	0~10	25

III. Model Instruction

Model instructions

Z Y 50 - 12DC



IV. Operating Attention

Its pumping medium is clean oil products like diesel oil and kerosene. It is forbidden to be used to pump explosive oil products like gasoline and the oil product of high viscosity like engine oil and gear oil. It is forbidden to be used to pump water.

V. Installation and Use

1. Before installing, roundly check if there exists damage caused during transportation and storage, like if cable and accessory is intact.
2. Ensure power supply conforms to electric pump voltage. Voltage fluctuating range is $\pm 10\%$ of rated value.
3. The power supply of direct-current electric pump has positive pole (+) and negative pole (-). The red pump wire is positive pole (+) and the black is negative pole (-). If connect them wrongly, the pump will revolve reversely and do not supply oil.
4. Fix the complete machine horizontally when installing electric pump. Use steel pipe or rubber pipe (it should not be too floppy in case it will be sucked flat) to connect supporting filter screen and oil inlet pipe head.
5. Connect oil outlet and inlet pipes according to arrow head on the pump body. Make sure that oil inlet pipe and its interface are sealed. There is no air leakage to ensure suction.
6. Make sure that install filter screen on oil inlet pipe to avoid hard materials being sucked into pump chamber, thus damaging pump body and vane. Frequently remove dirt on the filter screen. Don't wrap too fine filter screen on the sieve surface, or clogged screen can easily cause flow reduction and pump damage.
7. Pump can work continuously within the application range of head. Do not work long hours when beyond application range of head, in case pump will be damaged due to overloading.
8. The pump can not rotate without oil over 1 minute, in case the pump body and vanes will be damaged due to overheating from friction.
9. Invite professional to maintain the pump after 500 hours' working.