

KOSHIN

ELECTRIC DRUM PUMP

OPERATION MANUAL

《FR MODEL》

- Thank you for purchasing this product.
- This manual is prepared for your safety when operating pump.
Please read carefully and comprehend fully before use.
(Wrong usage could cause injury or death)
- Please keep this manual handy for future reference.

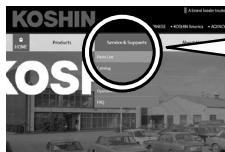
Please read this manual before operation.

SPARE PARTS

For spareparts information, visit



<http://www.koshinpump.com>



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CAUTION

1. Uses

- The pump is exclusively used for comparatively low viscosity oils such as kerosene, diesel, spindle oil, and heavy oil A.
- The pump is not applicable to heavy oil B, machine oil, and other liquids of high viscosity.
- Primary petroleum such as gasoline is absolutely prohibitive. (We are not responsible to fire due to the use of gasoline.)

2. Idling is prohibitive

Strictly refrain from idling the pump as bearing seizure can result.

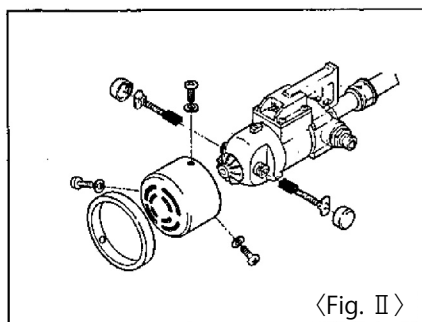
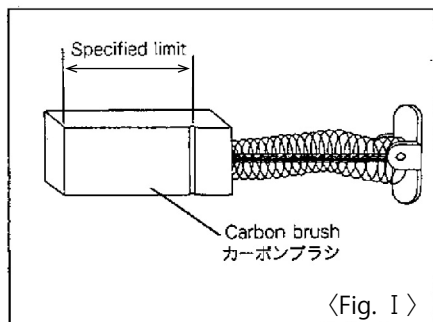
3. No tumbling

The power transmission shaft from the motor to the impeller is made to a high precision. Refrain from applying any impact to the motor by throwing it down, for example. Slant-wise position during operation is also prohibitive.

CARBON BRUSH REPLACEMENT

(FR-200 only)

- Use of an excessively worn out carbon brushes can lower the discharge and damage the motor. <Fig. I>
- Obtain the carbon brush at the dealer whom you purchased the motor from after checking the type. (See the name plate.)
- How to replace <Fig. II>
 - Remove the fan cover cushion rubber, take off the set screws at three places with a screw driver, then take out the fan cover from the motor.
 - Loosen the carbon caps at two places on the right and left sides of the motor by hands to take out the carbon brushes in the motor. When they are worn out over the specified limit, insert new carbon brushes.
 - For assembling, reverse the order of disassembling. Note that the carbon caps may be cracked if tightened too hard.



HOW TO USE

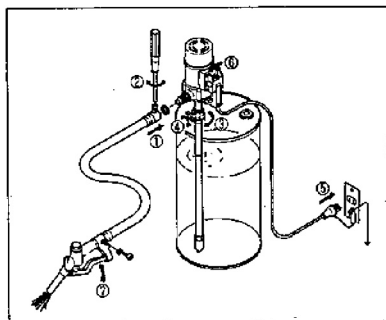
First connect the discharge hose to the pump.

- Place the packing into the hexagon flange, screw the joint into the pump discharge port, then tighten the joint firmly.
- Screw the straight flange at an end of the hose into the hexagon joint and fasten the machine screw.
- Insert the suction pipe into a drum can, screw the larger screw into the mouth piece of the drum can while keeping the pump bottom in contact with the bottom of the drum can, then fix the pump with the thumbscrews.
- Make sure that the switch is turned to off before connecting the cord to a power source.

(AC 220/240V source is used for type FR-200.

Be sure to earth the pump with an earth clip.)

- Turn on the switch and pull the oil supply nozzle lever, then the pump starts discharging.



TROUBLE & REMEDY

Pump fails to turn.	<ul style="list-style-type: none">— Incomplete connection to power source (Connect the power exactly)— Power cord disconnection (Change the cord)— Worn out carbon brush (Replace)— Motor trouble (Repair)
Discharge is low.	<ul style="list-style-type: none">— Hose is bent over (correct the bending)— Worn out carbon brush (Replace)
Motor turns but no pumping.	<ul style="list-style-type: none">— No oil in the drum can (Stop operation at once)— Strainer loading (Clean the strainer)

SPECIFICATIONS

		FR-200	
P U M P	Connection dia	32 mm (1 1/4")	
	Connection thread	Parallel pipe thread	
	Total head	11 m 36 ft	
	Discharge volume	110 L/min 29 U.S.G/min	
M O T O R	Type	Fan-cooled commutator	
	Rated voltage	AC 110 V	AC 220 - 240V
	Ampere	5 A	2.5 A
	Power	200 W / 6200 rpm	
	Continuous use time	Continuous	
	Power cord	2 m ² × 5 m	
Discharge hose		Gasoline-proof rubber hose 25 mm(1") × 2 m	
Oil supply nozzle		Aluminum alloy made 25mm	
Net weight		12.5 kg	

PERFORMANCE CURVE

