

ONE POST THRUSTOR

● RO – 2006

● RO - 2012



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1. Features

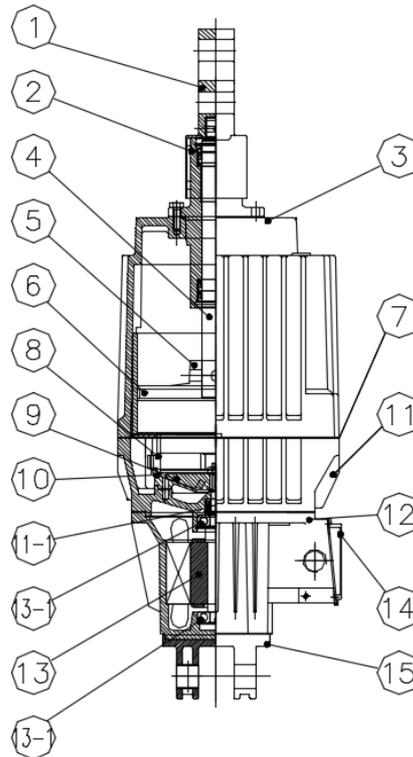
This thrustor consists of the 3 phase induction motor at upper part and the pump at lower part.

When the power is on, Hyd. pressure is caused by impeller due to motor revolution and the thrustor rod connected with the piston will be raised.

When the power is off, the thrustor rod will be lowered down by the exterior load and the piston connected with thrustor rod.

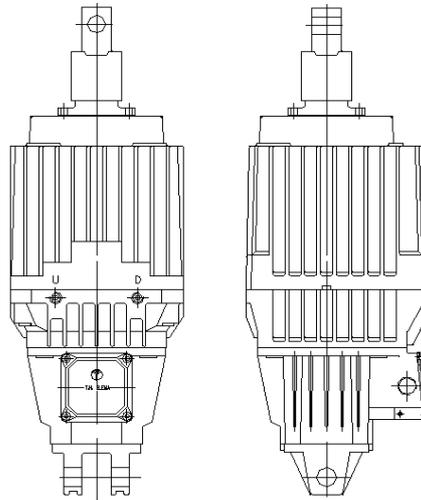
2. Construction

1) Internal Construction



No.	ITEMS	No.	ITEMS	No.	ITEMS
1	ROD END	7	GASKET	12	MOTOR CASE
2	SHAFT COVER	8	CASTING	13	ROTOR SHAFT
3	UP COVER	9	IMPELLER PAD	13-1	BEARING
4	PISTON SHAFT	10	IMPELLER	14	TERMINAL BOX COVER
5	PISTON	11	IMPELLER BASE	15	LOW PART BRACKET
6	PISTON SEAL	11-1	OIL SEAL		

2) External Structure



3. Installation

The installation of thruster should be vertical. there are two kinds method of installation. One is Bolt Fixing method as like Fig. A and the other is pin fixing method as like Fig. B.
(For the PSA RMQC LATCH, Fixing method is Fig. A type)

4. Cable Wiring

Open the cover of thruster box and connect the cable to terminal lug. Before connecting the cable, be sure that the voltage is coincident with the one shown on the name plate. If there is no difference of UVW in terminal lug, free choiced 3 cables to be connected.

The lead cable of motor is classified as follows.
AC 440 / 380V is blue, AC 220 / 200 is red.

5. Oil & Lubrication

The oil of thruster should be that the viscosity is low, the international standard oil(Oil for transformer) and the purchasing is simple.

The oil is to be filled to the bottom of oil guide (Abt. 75~100mm from oil inlet plug).

For the air ventilation of thruster interior, 3~4 times up and down operation of of thruster should be done. And after suppling of oil, be sure that the operation of thruster is smooth.
If the oil is insufficient, the thrusting speed is slow and the temperature of motor will become higher.

THRUSTOR	OIL Q'TY
RO - 2006	9.4ℓ
RO - 2012	

3) OIL SEAL

. OIL seal uses it in order to prevent that oil leaks to piston rod. It is good that exchanges one time of year degree this to lead if I use it many hours.

. Exchange of oil seal disconnects former brake and thrustor.

. A case of picture A,B replace shaft cover of thrustor after disconnections (BOLTING dismantling).

. A case of picture pull out bearing, and I replace it after disconnecting impeller base of thrustor and motor case (bolting dismantling, a motor coil replacement).

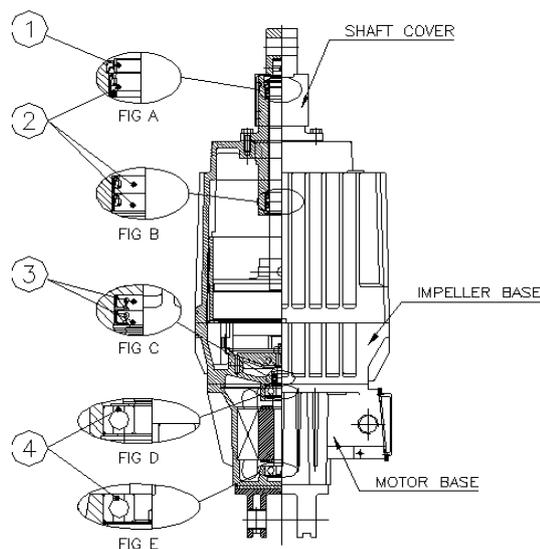
. Assemble it after confirmation without damage to a leak part of seal replacement.

N O	TYPE	STANDARD
fig A - ①	DUST SEAL	$\varnothing 32 \times \varnothing 45 \times 7 / 10$
fig A, B - ②	OIL SEAL	$\varnothing 32 \times \varnothing 43 \times 12.5$
fig C - ③	OIL SEAL	$\varnothing 12 \times \varnothing 25 \times 7$

4) BEARING

. When strange sound calls the occurrence in the middle of use in the insides, I replace bearing.

N O	TYPE	STANDARD
FIG D, E - ④	BALL BEARING	#6302 DDU



5) Inspection and Maintenance

Phenomenon	No.	Reason	Countermeasure
• Lengthy time of thrusting	1	• Insufficiency of oil.	• Supply the oil to the bottom of oil guide.(9.4ℓ)
	2	• Dropping of inlet voltage	• After checking, take a measure to prevent the voltage drop.
• Thrusting rod is not thrusted when power is on.	3	• Bad winding of motor coil	• Replacement of coil
	4	• Bad contact point of lead cable.	• Check the contact point and take a measure.
	5	• Bad assembly with counter parts	• Check and take a measure.
	6	• Deform of thruster rod	• Replacement of thruster rod
• Abnormal noisy.	7	• Failure of bearing	• Replcement
	8	• Contact between rotational part and fixing part	• Disassemble and take a measure.
• Motor failure and maintenance	9	• Bad insulation of motor coil.	• Replcement of motor coil
	10	• Single phase operation	• Inspection of electric circuit and take a measure.
	11	• Insulation dropping due to penetration of water and obstruction of rotor due to anti-rusting	• Dry out by heating and cleanning out by disassembling
	12	• Disconnection of coil	• Replcement