

## INSTRUCTION MANUAL FOR SEAL KIT REPLACEMENT

### HOW TO REPLACE SOFT PARTS OF RACK AND PINION ACTUATOR

“FEATHER” Actuators are supplied with standard testing and internal checks to ensure the best performance on field, however during the operation it is a possibility that soft parts may get erode and needs to be replaced with new ones.

“FEATHER” recommends to use its genuine spare parts and such parts are supplied as “Standard Seal Kit”

Below instruction can guide the user in replacement of its soft part using Seal Kit.

The Seal Kit is consist of O-Rings which are mounted on three different parts.

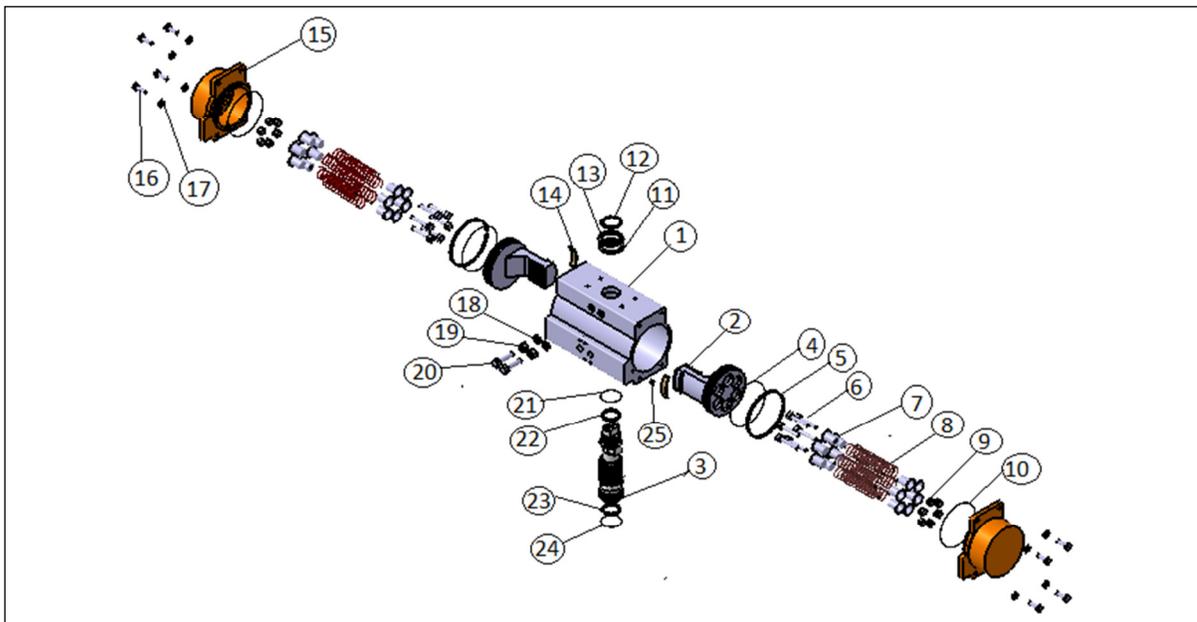
- 1) End Cap O-Ring (10)
- 2) Piston O-Ring (5)
- 3) Pinion O-Ring (21 & 24)

The replacement of all these parts is possible only by opening the actuator. There are two types of actuators

- 1) Single Acting (Loaded with set of Springs between Piston and End Caps)
- 2) Double Acting (No springs are used)

Following points needs to be ensured before starting the work for replacement.

- 1) All accessories on actuator are removed e.g. pilot valve, positioner, limit switch etc...
- 2) The supply air connection is isolated/removed and there is no air trapped inside the Actuator.
- 3) Actuator is removed from system / Actuator is removed from Valve.





Clean the actuator with soft cloth. Take it on a flat table. Identify if it is single acting or double acting. If it is single acting you need to know that there are compressed springs inside with stored energy.

**Now for dismantling the actuator follow below steps.**

- 1) Remove or dismantle both the end caps from actuator body.
- 2) Remove the stopper bolt provided on actuator body.
- 3) Dismantle pistons from actuator body by providing slowly air from 'A' port (right side of body).
- 4) Dismantle the pinion from actuator body by removing the circlip of pinion which is provided on upper side of the actuator body.

**Now for Assemble the actuator follow below steps.**

- 1) Firstly provide all the 'O' rings on pistons, end caps and pinion.
- 2) Assemble the pinion from lower side of actuator body.
- 3) Provide or fix the circlip on the pinion upper side by circlip pleyer.
- 4) Assemble the piston in actuator body as per position shown in explode view.
- 5) Adjust the stopper bolt for quarter turn opening and closing position.
- 6) Assemble both the end caps on actuator body.
- 7) Open or Close the actuator 10 to 15 cycles by giving air from A and B port.

**NOTE :- 6, 7, 8 and 9 number shown in explode view are only for single acting actuator.**