INDEXING ACTUATOR OPERATION
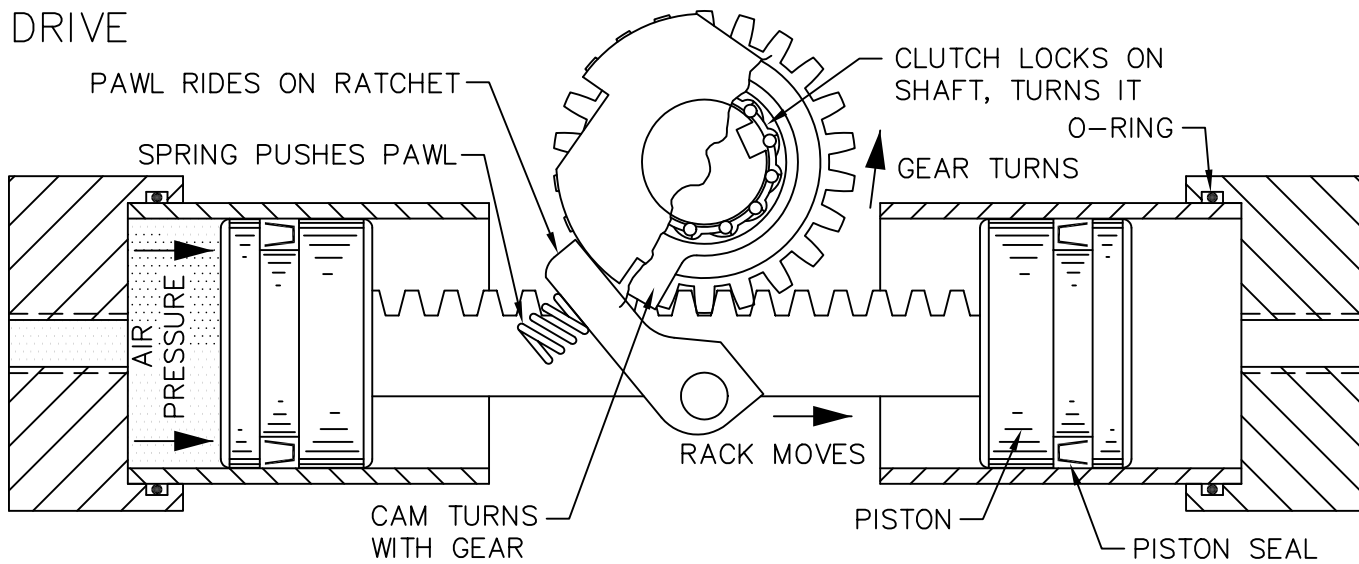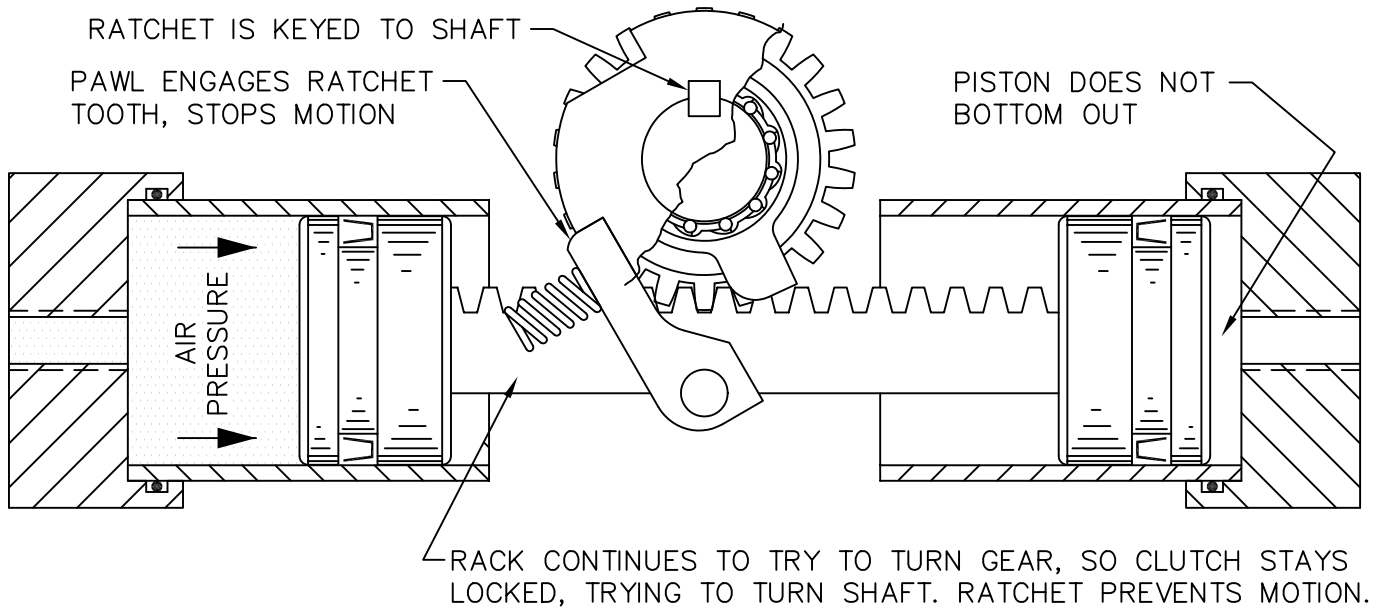
UNIT SHOWN IS CLOCKWISE ROTATION, COUNTER CLOCKWISE UNIT IS MIRROR IMAGE
"REAR VIEWS"

1) DRIVE

PAWL RIDES ON RATCHET

SPRING PUSHES PAWL

CLUTCH LOCKS ON
SHAFT, TURNS IT

O-RING

GEAR TURNS

AIR PRESSURE

RACK MOVES

CAM TURNS
WITH GEAR

PISTON

PISTON SEAL

2) LOCKED

RATCHET IS KEYED TO SHAFT

PAWL ENGAGES RATCHET
TOOTH, STOPS MOTION

PISTON DOES NOT
BOTTOM OUT

AIR PRESSURE

RACK CONTINUES TO TRY TO TURN GEAR, SO CLUTCH STAYS
LOCKED, TRYING TO TURN SHAFT. RATCHET PREVENTS MOTION.

3) RESET

CAM TURNS WITH GEAR, PUSHES
PAWL AWAY FROM RATCHET

CLUTCH UNLOCKS, ALLOWS
SHAFT TO STAY STILL. FRONT
CLUTCH PREVENTS SHAFT
FROM BACKING UP.

GEAR TURNS

AIR PRESSURE

PAWL PIVOTS

FILE NAME: INDXOPER.DWG