

CAMCO IOC AUTOMATIC OVERLOAD CLUTCH

Field Installation and Setting

NOTE: Camco does not Preset Input Overload clutches at the factory. Input Overload Clutches can only be properly set under fully loaded, field conditions. (The numbers on the clutch face do not indicate any torque value, they are for reference only.)

The following instructions assume that the input overload clutch is assembled on the cam shaft and the overload limit switch is properly positioned. (If these starting conditions do not exist, Please contact the Factory.) Please refer to figures 1A and 1B when starting.

STEP 1 Remove the Shut-off Spool #12. (Press fit if necessary) Loosen Conepoint Set Screw #10. (There are 1 or 2 possible tapped holes, but use only one set screw. Explanation later.) Reset limit switch.

STEP 2 Tighten the Adjusting Nut #3 to firm tightness. Use a spanner wrench in sizes through 350 IOC, or crescent wrench with Removable Pinion #15 in size 400 IOC or larger. NEVER power a unit with a loose clutch! Severe Indexer damage can result! Manually rotate cam shaft to the mid-dwell position. Use a felt tip to register match marks per figure 2.

STEP 3 Power indexer drive for 1 index and observe match marks. If the marks have separated –

1. Wipe off old marks.
2. Retighten nut one or two notches.
3. Register new match marks.

STEP 4 Repeat step 3 if marks separate.

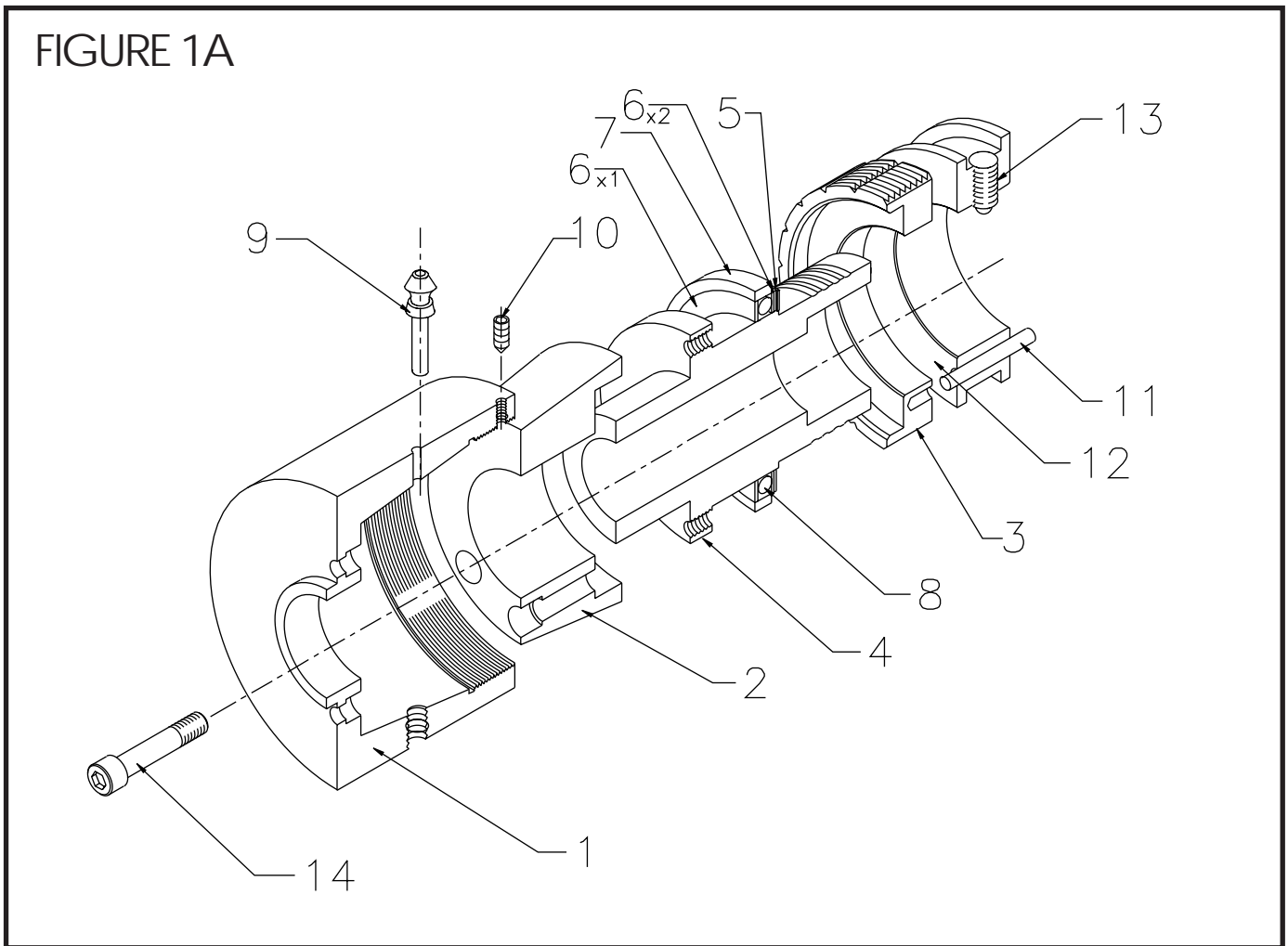
STEP 5 When the match marks do not move under power for one index, continue to run Indexer for 5 to 7 indexes and stop in dwell. Repeat the 5 to 7 index cycle 2 more times. If the match marks have not moved, tighten Set Screw #10. (The cone Point set screw must enter the groove between the threaded areas.)

STEP 6 Now power indexer again and apply E stop in mid-motion. The match marks should now displace from 1/8" to 2", depending on the size of the IOC. This step is necessary to verify that the clutch has not been set too tightly. If movement appears to be too much, move Set Screw #10 to the other tapped hole. This will permit additional tightening of only 1/2 notch.

STEP 7 Re-position shut off spool #12 to center of radial grooves in thrust head #4. This should reset the overload stop switch.

The unit is now ready for continued operation. The above procedure should be repeated if the loading changes. Any inconsistencies with the above procedure should be referred to your Camco Representative or the Camco Factory.

350 IOC and Smaller



Repair Parts List Advise clutch size and CAMCO serial number.

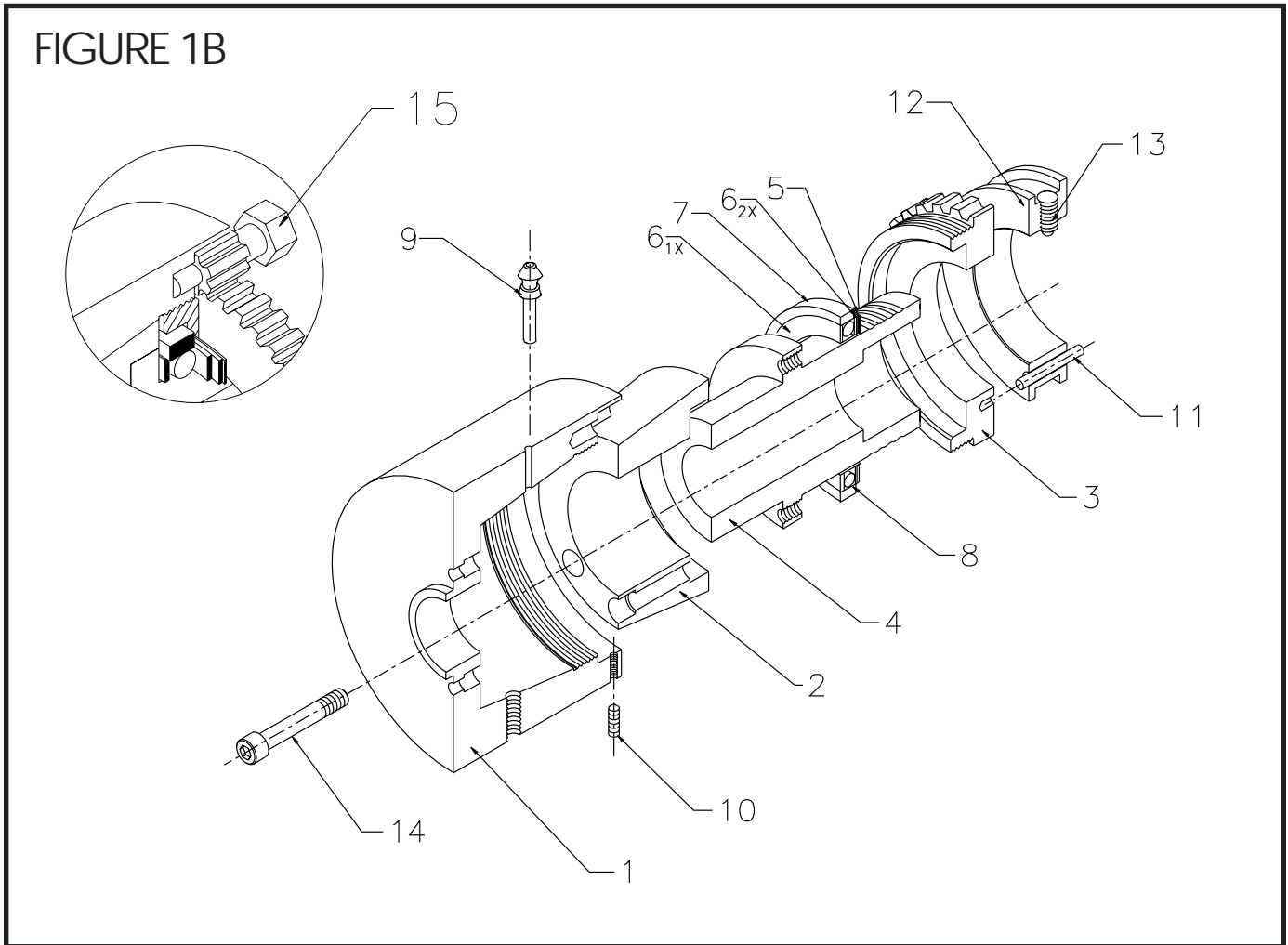
- 1 Housing
- 2 & 5 Thrust Head & Friction Cone
Advise bore size and keyway size.
- 3 Adjustment Nut
- 4 Thrust Head
- 6 & 7 Thrust Bearing Assembly
- 8 Pressure Ring
- 9 Grease Fitting
- 10 Conepoint Setscrew
- 11 Stop Pin
- 12 & 13 Shut-Off Spool Assembly
- 14 Cap Screws

4.0 Lubrication

Clutches are grease packed at the factory and should not require additional lubrication. If clutch is subject to consistent slippage and heating, grease with (Mobil 47 or 77) grease through standard grease fitting (part #9). Do not use air pressure gun.

NOTE: Item 12, 2 setscrews, are not used in CAMCO type IOC applications.

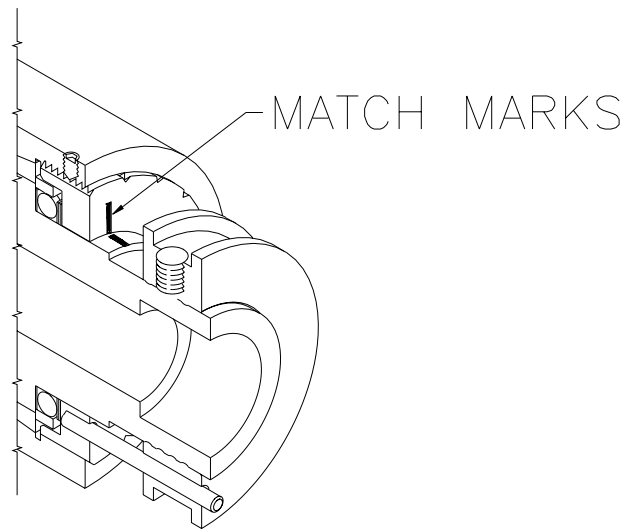
400 IOC and Larger



Repair Parts List Advise clutch size and CAMCO serial number.

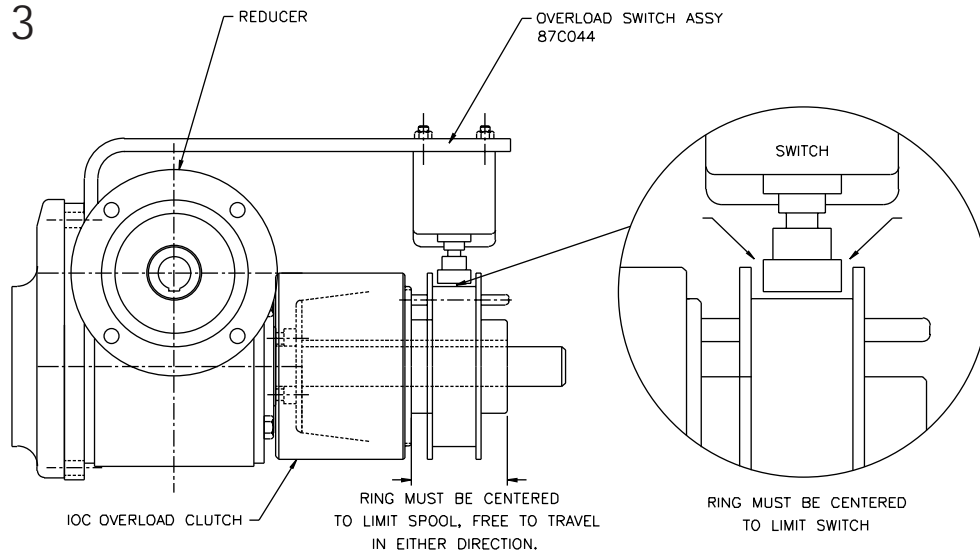
1	Housing	10	Conepoint Setscrew (400 & 450 IOC Only)
2	Friction Cone	11	Stop Pin
3	Adjustment Nut	12&13	Shut-Off Spool Assembly
4	Thrust Head Advise bore size and keyway size.	14	Cap Screws (4)
5	Thrust Washer	15	Pinion
6 & 7	Thrust Bearing Assembly	17	Locking Plate Screws (2)
8	Pressure Ring		(Not Shown) Locking Plate (500 IOC & Larger)
9	Grease Fitting		

FIGURE 2



Scribe match mark lines on adjusting nut and inner sleeve. Lines should not move in normal cycle, but should separate 1/8" to 2" in jog, depending on size of IOC.

FIGURE 3



COMMERCIAL CAM CO., INC.
SUBSIDIARY OF EMERSON ELECTRIC CO.
1444 SOUTH WOLF ROAD
WHEELING, IL 60090 U.S.A.
(847) 459-5200 FAX: (847) 459-3064

USA 6/99 SKU0146