ADJUSTMENT OF THE VAC-U-TORQ CLUTCH BRAKE

READ CAREFULLY !

THE UNIT SHOULD NEVER BE ADJUSTED UNLESS THE UNIT FAILS TO CYCLE. ADJUSTMENT BEFORE THIS HAPPENS WILL RESULT IN TOO NARROW A GAP BETWEEN THE DISC AND FRICTION MATERIAL. MAKING AN ADJUSTMENT WHEN NOT NEEDED WILL RESULT IN OVERHEATING AND DESTRUCTION OF THE CLUTCH BRAKE.

IF THE UNIT WILL NOT INDEX AND AT THE SAME TIME THE VACUUM GAUGE DROPS BELOW 10" HG, THEN AN ADJUSTMENT MAY BE MADE. THE FIRST TIME YOU TRY AN ADJUSTMENT WE SUGGEST THAT YOU CALL AND LET US HELP YOU OVER THE PHONE.

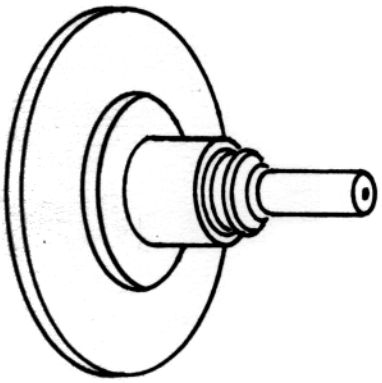
THE IDEA OF AN ADJUSTMENT IS TO BRING EITHER THE CLUTCH DISC, BRAKE DISC, OR BOTH CLOSER TO THE FRICTION MATERIAL. OVER TIME, IT IS THE FRICTION MATERIAL THAT WEARS DOWN SO MUCH THAT THE GAP BETWEEN THE DISC AND IT'S CORRESPONDING FRICTION RING BECOMES SO GREAT THAT INSUFFICIENT VACUUM BUILD UP RESULTS. WHEN THIS HAPPENS, THE DISC WILL NOT "PULL IN" AND CONTACT THE FRICTION MATERIAL. THIS IS WHY THE CLUTCH OR BRAKE WILL NOT ENGAGE. THE VACUUM READING DROP IS DUE TO THE LEAK AROUND THE EDGE OF THIS "UN-ENGAGED" DISC.

WHEN NEW, THE GAP BETWEEN THE DISCS AND FRICTION MATERIAL IS 0.001"-0.005". FAILURE WILL OCCUR AT A GAP OF APPROXIMATELY 0.012". BY REMOVING 0.003"-0.005" OF SHIM THE GAP IS REDUCED TO UNDER 0.010" WHICH IS SUFFICIENT FOR GOOD OPERATION. REMOVING TOO MUCH SHIM OR REMOVING SHIM ON A CLUTCH BRAKE THAT DOES NOT NEED ADJUSTMENT, WILL BRING THE DISCS TOO CLOSE TO THE FRICTION RINGS AND WILL CAUSE OVERHEATING AND COMPLETE DESTRUCTION OF THE DISCS.

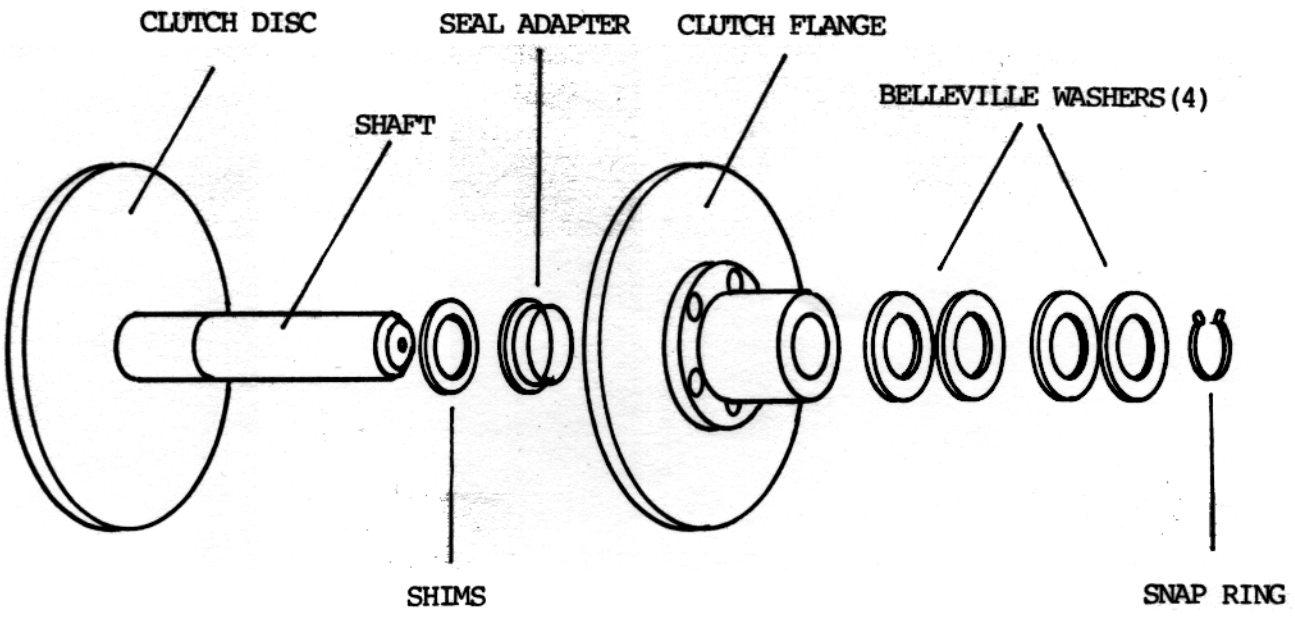
REMEMBER:

- ADJUST ONLY ONE SIDE AT A TIME
- NEVER REUSE A SNAP RING
- BE SURE BELLEVILLE WASHERS ARE INSTALLED PROPERLY
- AFTER ADJUSTMENT THE SHAFT AND THE CLUTCH FLYWHEEL SHOULD ROTATE FREELY

ADJUSTMENT OF CLUTCH



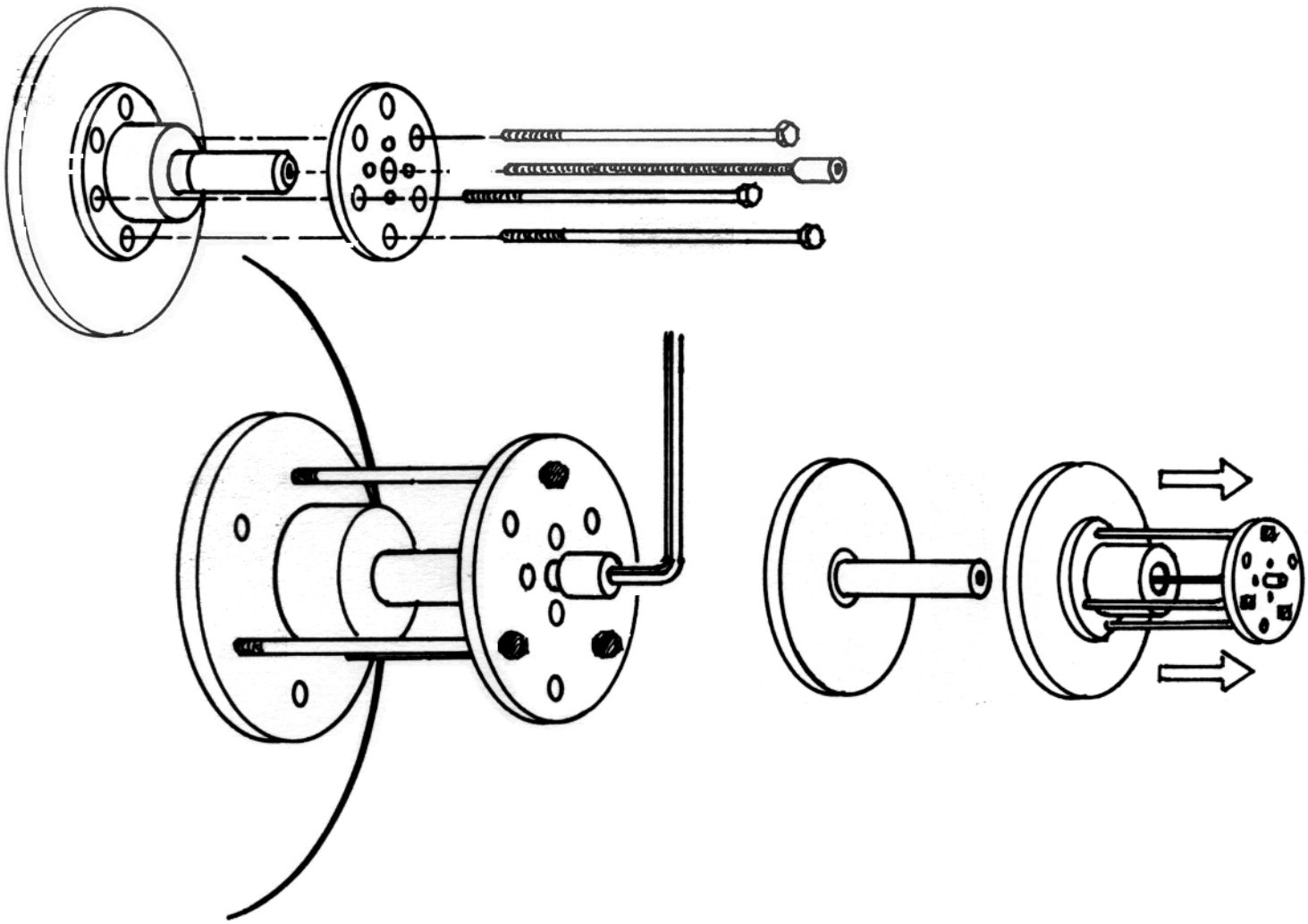
CLUTCH SIDE



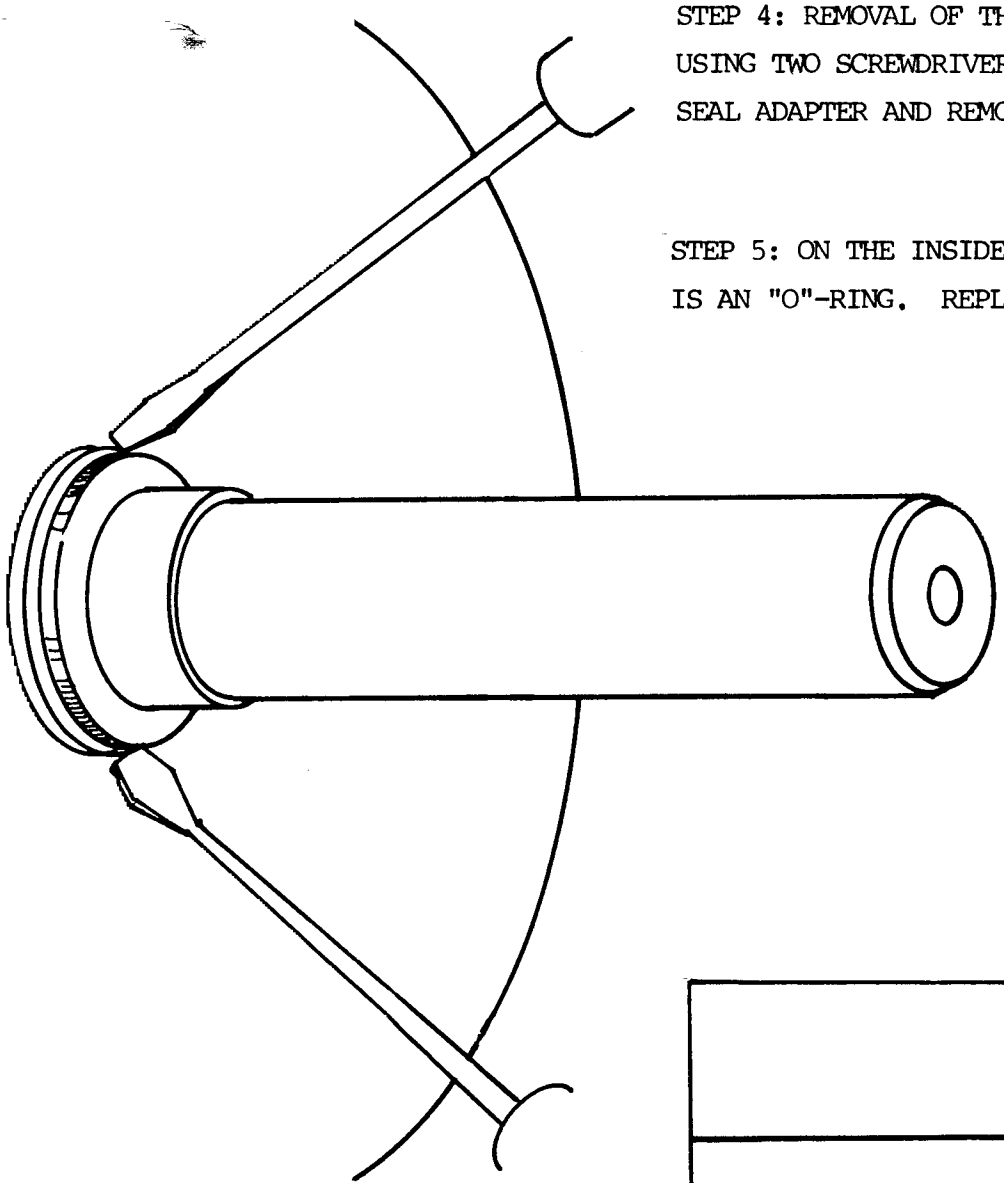
STEP 1: REMOVAL OF SNAP RING- WITH A HAMMER AND SCREWDRIVER POUND THE SNAP RING OUT OF ITS GROOVE. REMOVE.

STEP 2: REMOVE THE (4) BELLEVILLE WASHERS.

STEP 3: REMOVAL OF THE CLUTCH FLANGE- USING THE TOOL PROVIDED SCREW THE (3) BOLTS TIGHT INTO THE HOLES IN THE INPUT HUB AS SHOWN BELOW.

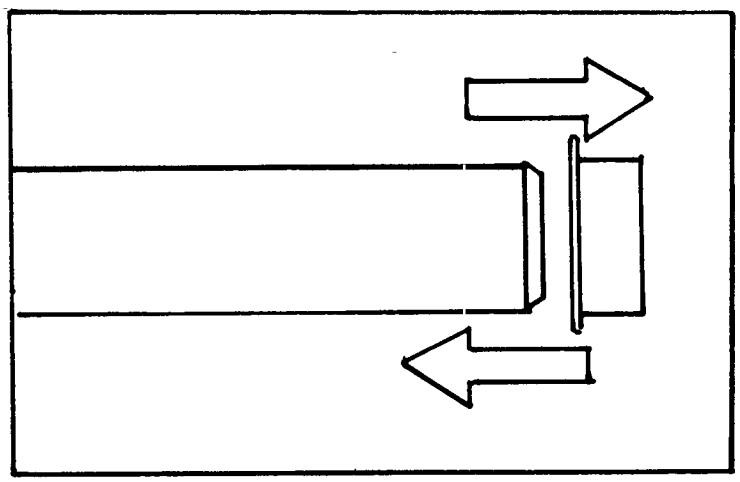


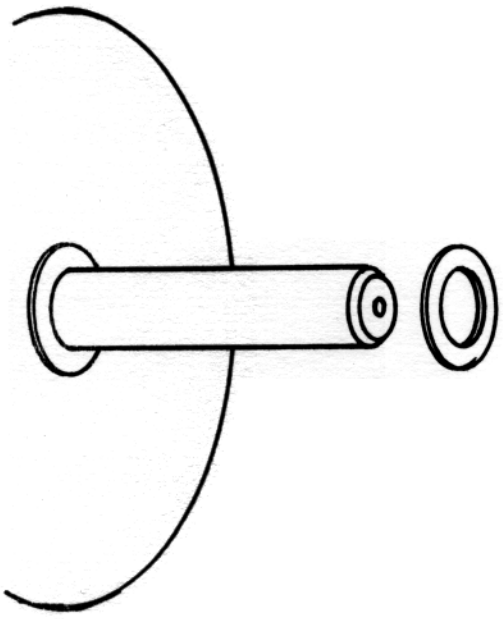
BY ROTATING THE CENTER BOLT CLOCKWISE THE CLUTCH FLANGE SHOULD NOW SLIDE OFF THE SHAFT. REMOVE IT AND DO NOT DROP IT.



STEP 4: REMOVAL OF THE SEAL ADAPTER- USING TWO SCREWDRIVERS PRY OUT THE SILVER SEAL ADAPTER AND REMOVE IT FROM THE SHAFT.

STEP 5: ON THE INSIDE OF THE SEAL ADAPTER IS AN "O"-RING. REPLACE IT WITH ONE PROVIDED.



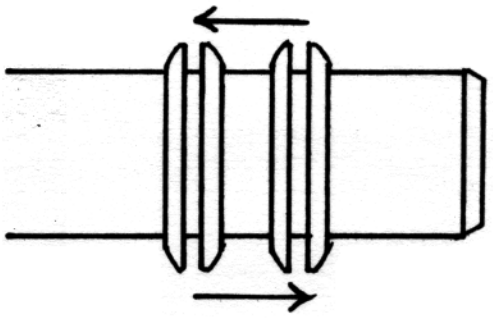


STEP 6: ONCE THE SEAL ADAPTER IS REMOVED THE SHIMS WILL BE EXPOSED. SLIDE OUT THE FIRST SHIM. DO NOT REMOVE MORE THAN ONE. THIS IS A 0.003" ADJUSTMENT.

STEP 7: REPLACE THE SEAL ADAPTER. IT MUST GO ON THE SHAFT AS SHOWN ON THE BOTTOM OF PAGE -3-.

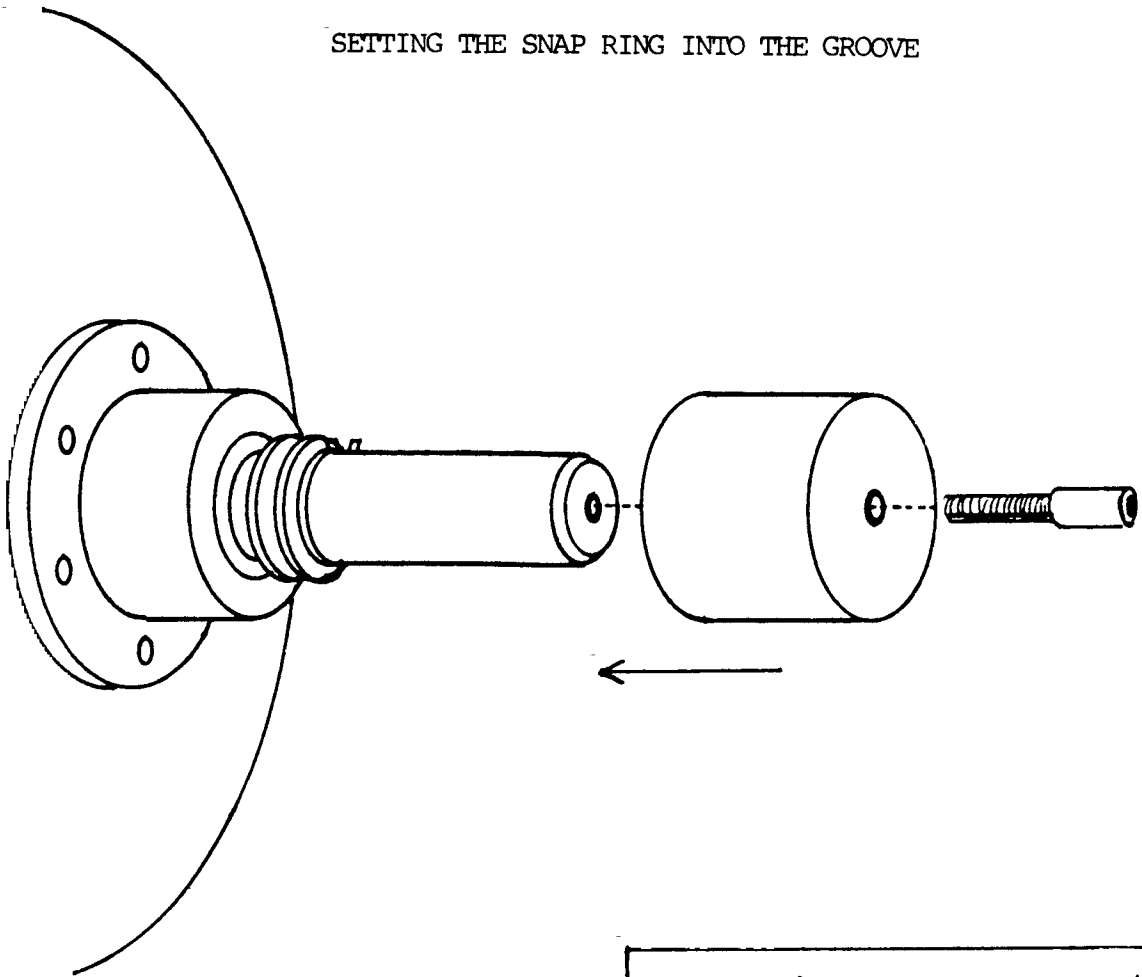
STEP 8: SLIDE THE CLUTCH FLANGE ONTO THE SHAFT AS FAR AS IT WILL GO

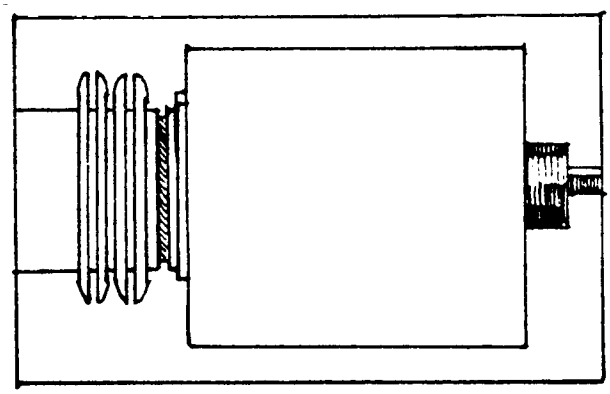
STEP 9: SLIDE THE (4) BELLEVILLE WASHERS ONTO THE SHAFT IN THE CONFIGURATION SHOWN BELOW.



STEP 10: SLIDE A NEW SNAP RING ONTO THE SHAFT AS FAR AS IT WILL GO BY HAND. SNAP RINGS ARE PROVIDED. NEVER USE AN OLD ONE.

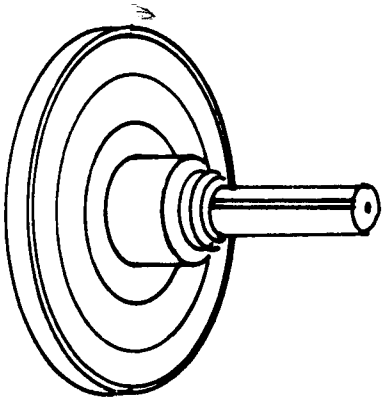
SETTING THE SNAP RING INTO THE GROOVE



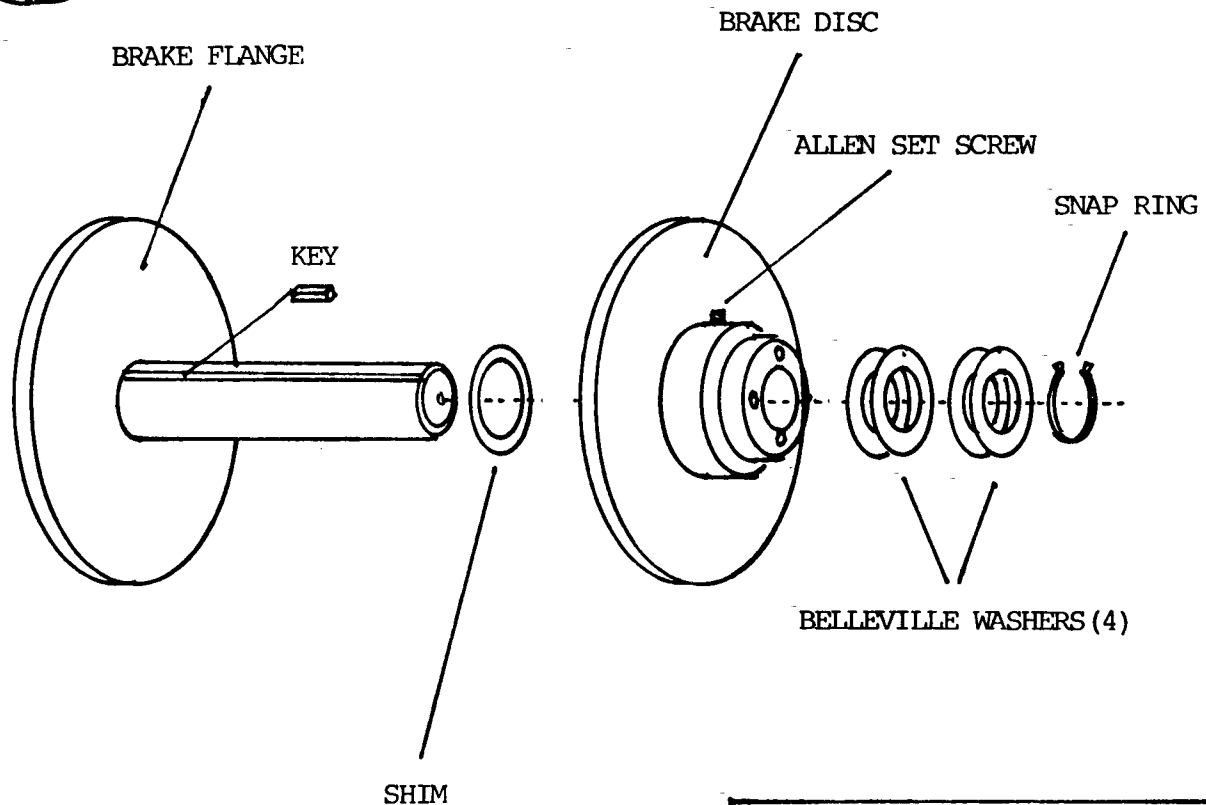


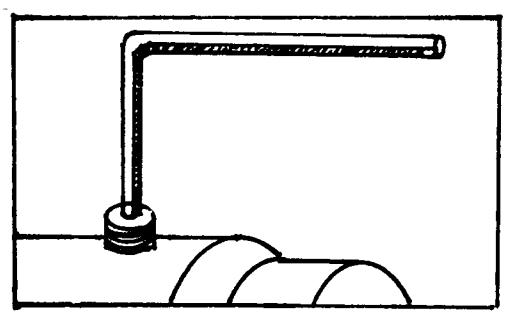
STEP 11: USING THE SNAP RING TOOL PROVIDED, SLIDE IT ONTO THE SHAFT AGAINST THE SNAP RING. TIGHTEN THE ALLEN BOLT CLOCKWISE SLOWLY UNTIL YOU HEAR A "SNAP". STOP. THIS SOUND IS THE SNAP RING SEATING INTO THE SNAP RING GROOVE. THE CLUTCH HAS NOW BEEN ADJUSTED 0.003".
IF THIS HAD BEEN THE BRAKE SIDE NOW WOULD BE THE TIME TO TIGHTEN THE ALLEN SET SCREW.

ADJUSTMENT OF THE BRAKE



BRAKE SIDE



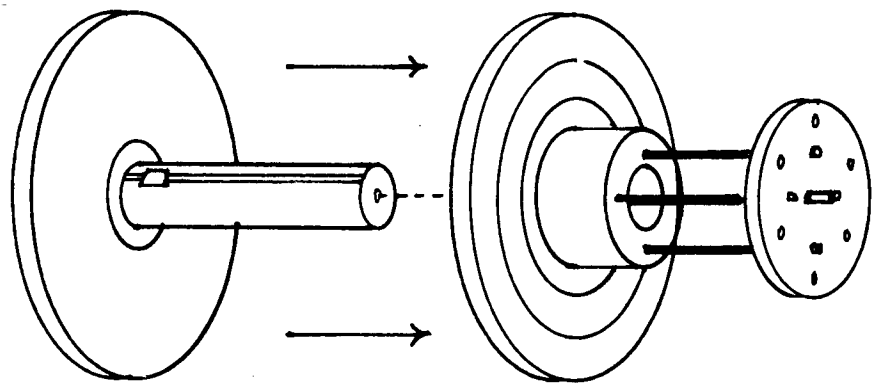


STEP 1: WITH A HAMMER AND A SCREWDRIVER POUND THE SNAP RING OUT OF ITS GROOVE. REMOVE.

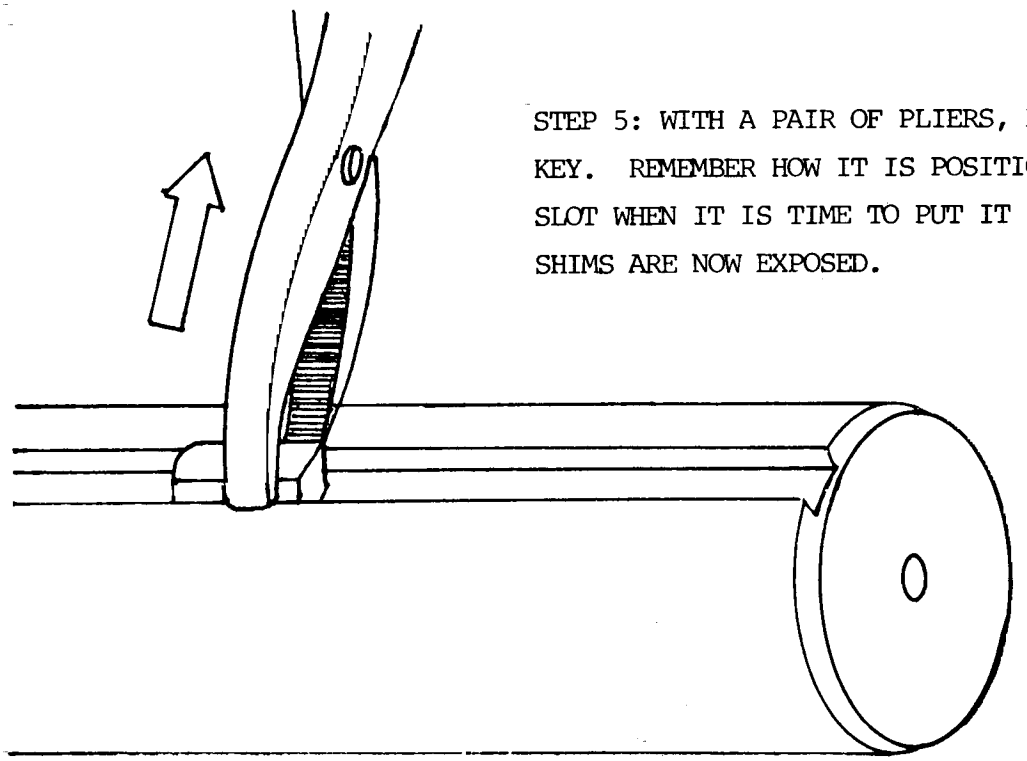
STEP 2: REMOVE THE (4) BELLEVILLE WASHERS.

STEP 3: WITH A 3/16" ALLEN WRENCH LOOSEN THE SET SCREW ON THE DISC.

STEP 4: REMOVAL OF THE DISC- USING THE TOOL PROVIDED TIGHTEN THE (4) BOLTS PROVIDED INTO THE HOLES IN THE DISC AS SHOWN BELOW.



ROTATING THE CENTER BOLT CLOCKWISE, THE DISC SHOULD SLIDE OFF THE SHAFT. REMOVE.

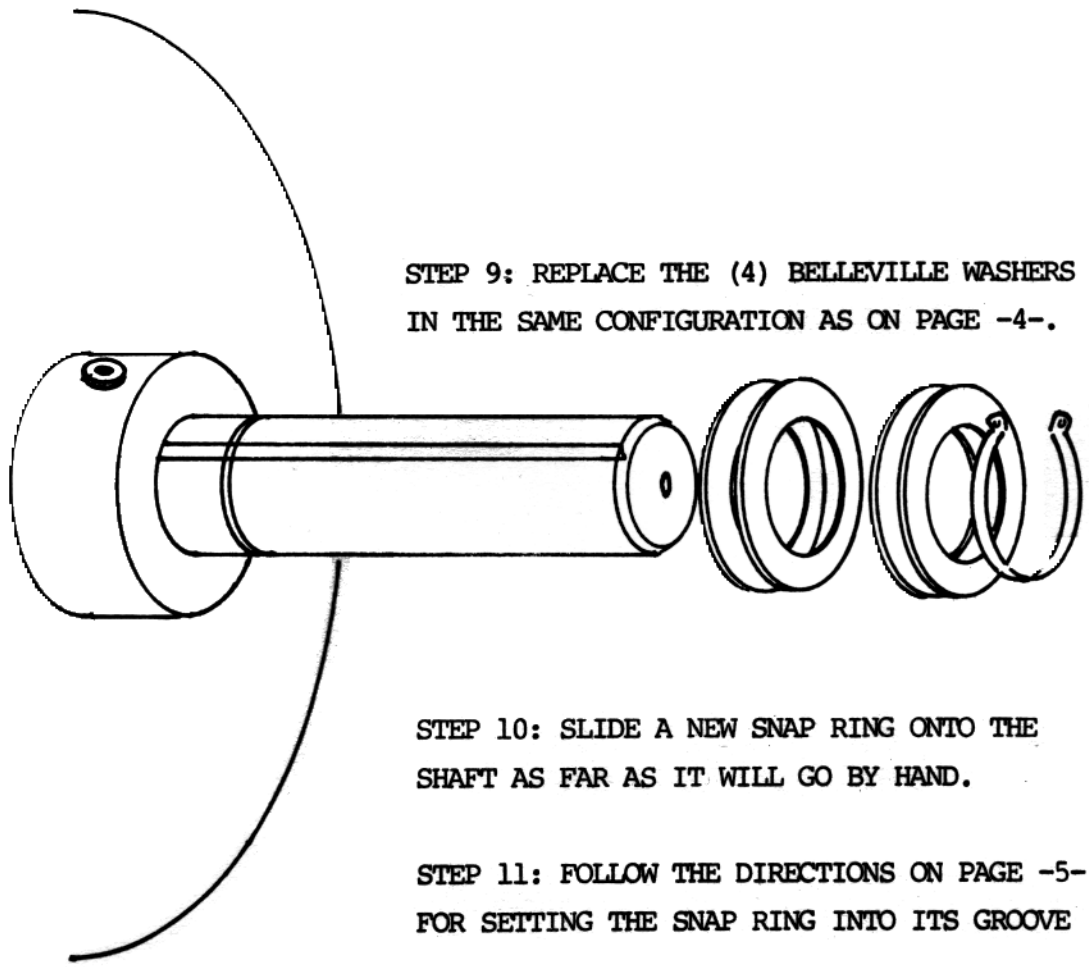


STEP 5: WITH A PAIR OF PLIERS, REMOVE THE KEY. REMEMBER HOW IT IS POSITIONED IN THE SLOT WHEN IT IS TIME TO PUT IT BACK. THE SHIMS ARE NOW EXPOSED.

STEP 6: SLIDE OUT THE FIRST SHIM AND REMOVE. DO NOT REMOVE MORE THAN ONE. THIS IS A 0.003" ADJUSTMENT.

STEP 7: REPLACE THE KEY THE SAME WAY IT CAME OUT.

STEP 8: SLIDE THE BRAKE DISC ONTO THE SHAFT OVER THE KEY AS FAR AS IT WILL GO BY HAND. DO NOT TIGHTEN THE ALLEN SET SCREW YET !!!



STEP 9: REPLACE THE (4) BELLEVILLE WASHERS IN THE SAME CONFIGURATION AS ON PAGE -4-.

STEP 10: SLIDE A NEW SNAP RING ONTO THE SHAFT AS FAR AS IT WILL GO BY HAND.

STEP 11: FOLLOW THE DIRECTIONS ON PAGE -5- FOR SETTING THE SNAP RING INTO ITS GROOVE

STEP 12: TIGHTEN THE ALLEN SET SCREW NOW !!