TUB BEARING

The tub bearing is a sintered metal bearing molded in rubber to fit with the outer tub. The inner face of the mounting stem tightens down on the bearing sleeve locking it to the power unit. The sleeve always turns with the power unit inside the outer tub bearing in spin.

To Remove Outer Tub Bearing:

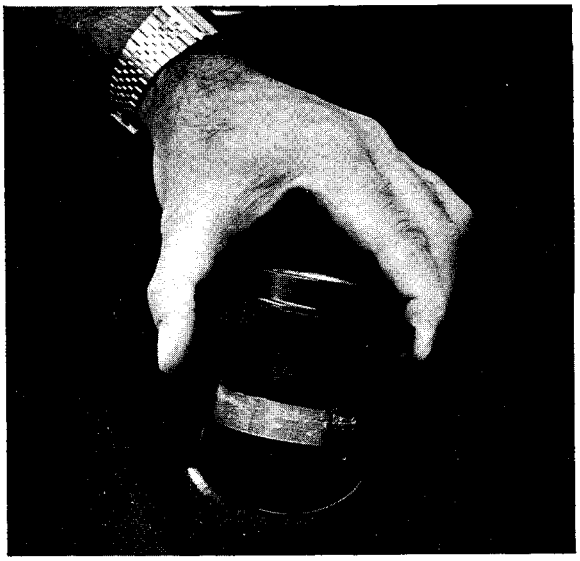
1. Disconnect unit from power source.
2. Remove outer tub.
3. Because of the porcelain tub and molded retainer, it is not practical to drive the tub bearing from the tub. To remove the bearing from the tub, elevate the tub so that the porcelain drain tube clears the floor. This could be done by placing a 2x4 or a doubled over corner post under the tub.
4. Apply pressure on the bearing pushing it from the tub. This can be done by standing on the bearing.

To Replace Tub Bearing:

1. Turn tub over, starting bearing into tub cover.

   Note: Caution should be exercised to see that the tub bearing is started into the tub straight to prevent and erratic or egg-shaping when seated in the tub.

2. Press bearing into place by applying pressure. This may also be done by standing on the bearing. To avoid getting dirt in the bearing, place a protective cloth over the bearing before standing on it.



TRANSMISSION - ORBITAL

How it works:

The helical drive mechanism used on the washer is simple---not requiring a special device or linkage normally used to shift the washer from agitation to spin.

As you look at the following drawings, remember that the parts shown in dark (damper, brake housing, brake drum and outer race of the spin bearing) are attached to the base and never rotate.

A reversible motor, helical (threaded) drive shaft and pulley make up the drive mechanism. The pulley, threaded onto the helical drive shaft, moves either up or down the shaft dependent on the direction it is turned by the drive motor through a drive belt.

Agitation

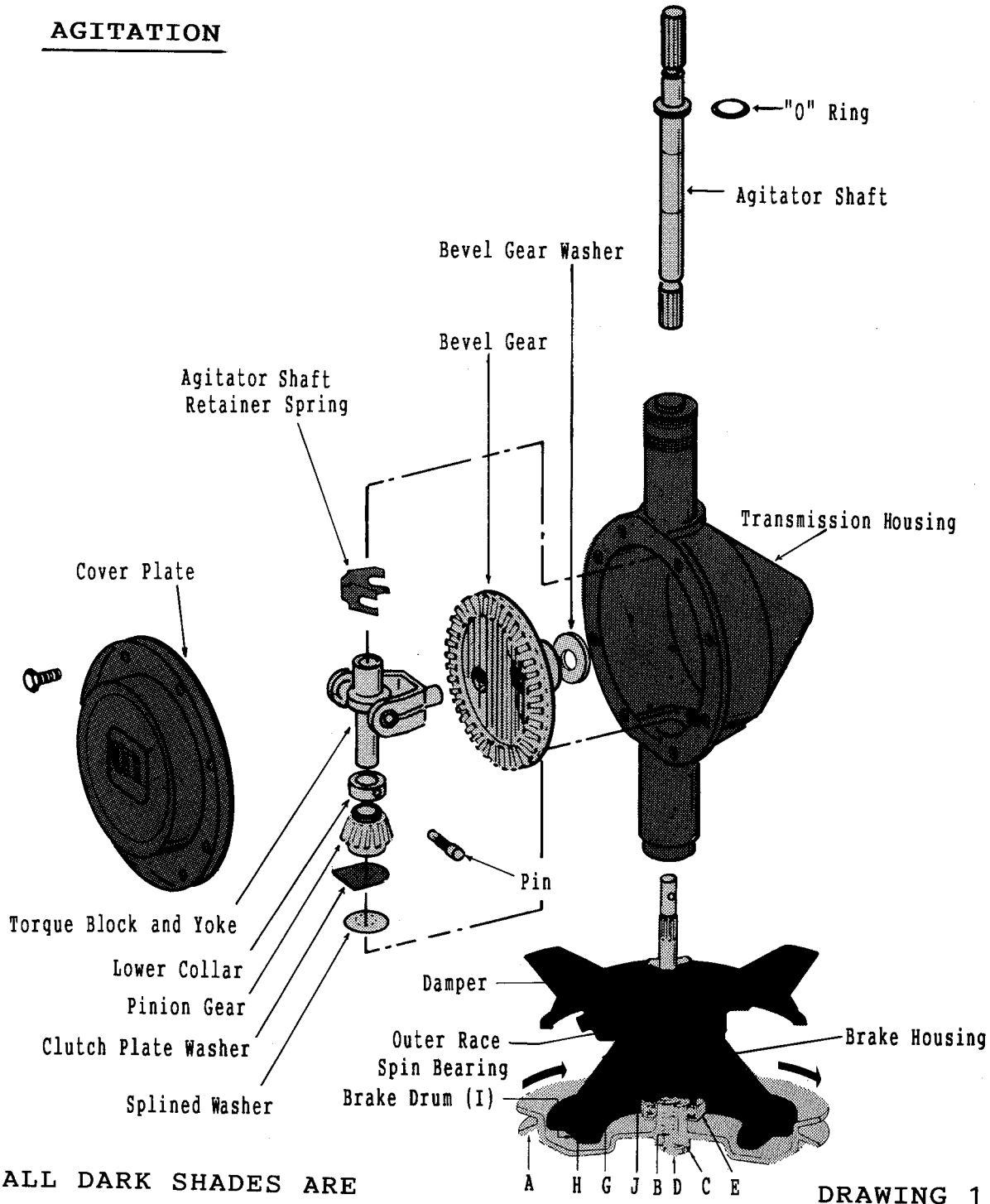
With the pulley (A) being turned clock-wise as shown in Drawing 1, it moves down the helical drive shaft (B). As it rotates down the shaft, a lug (C) on the pulley comes against drive lug (D)

which is splined to the helical drive shaft.

At this point the drive shaft rotates with the pulley. The pulley bearing (E) which is sitting on top of the pulley, rotates with the pulley, drive lug and drive shaft.

Inside the transmission, the pinion gear, splined to the drive shaft, rotates and drives the bevel gear. As the bevel gears rotates, the torque block and yoke assembly causes the agitator shaft to oscillate, creating the water action for wash.

AGITATION

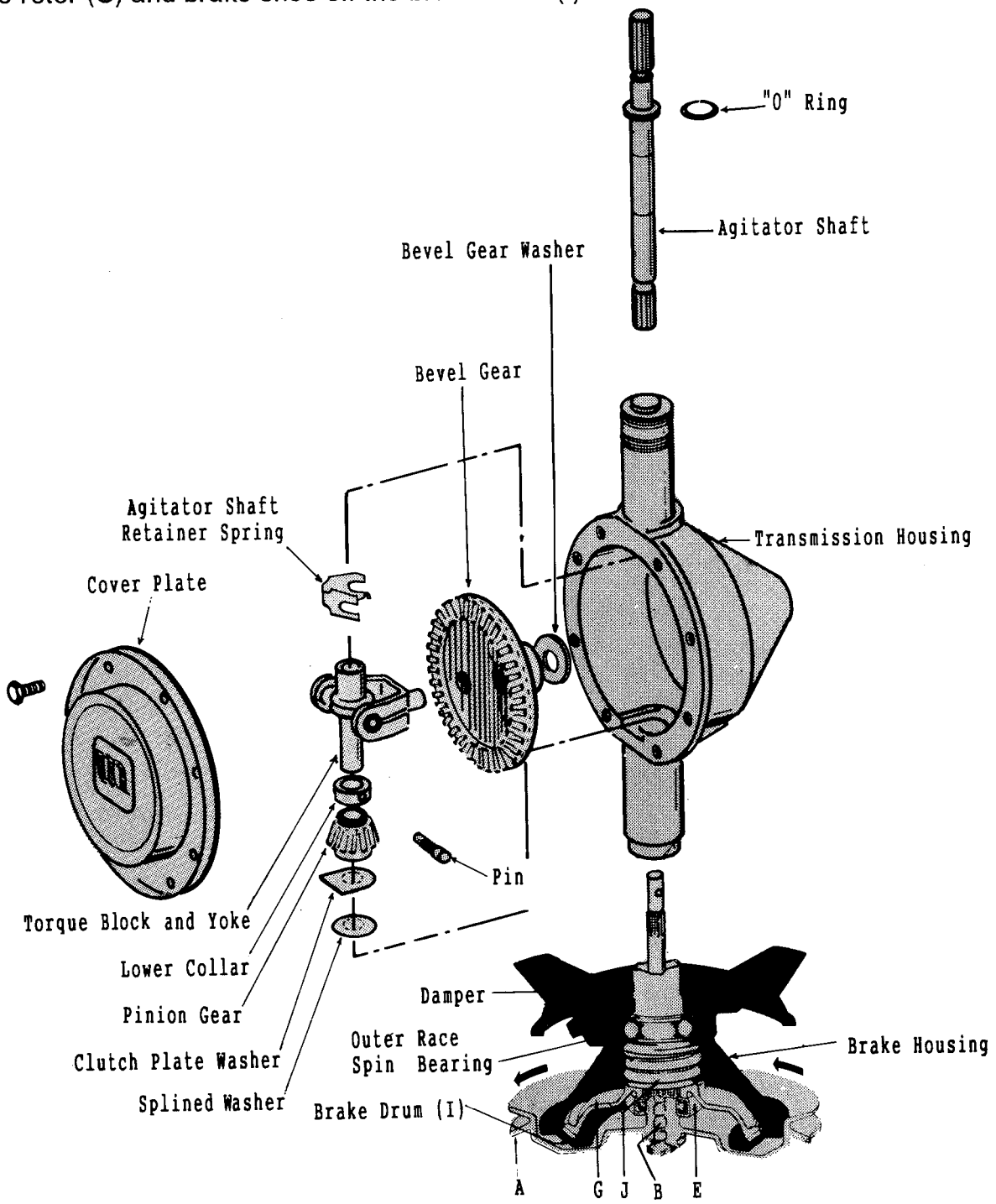


ALL DARK SHADES ARE STATIONARY COMPONENTS; ALL LIGHT SHADES ARE MOVING COMPONENTS

DRAWING 1

Spin

When the motor reverses, the pulley will turn in the direction shown in Drawing 2. This causes the pulley (A) and bearing (E) to turn. The pulley climbs the threads on the helical drive shaft (B) overcoming the force of the brake spring (J) and lifts the brake rotor (G) and brake shoe off the brake drum (I).



ALL DARK SHADES ARE STATIONARY COMPONENTS; ALL LIGHT SHADES ARE MOVING COMPONENTS

DRAWING 2

As the pulley climbs the shaft and overcomes the force of the brake spring there is a downward pull on the shaft.

Inside the transmission are two washers that act as a clutch. This friction clutch consists of the bronze washer and clutch plate washer. The bronze washer is splined to, and rotates with the drive shaft. Between the bronze washer and the pinion gear is the clutch plate washer. It fits into a "D" slot in the housing, which keeps it from turning.

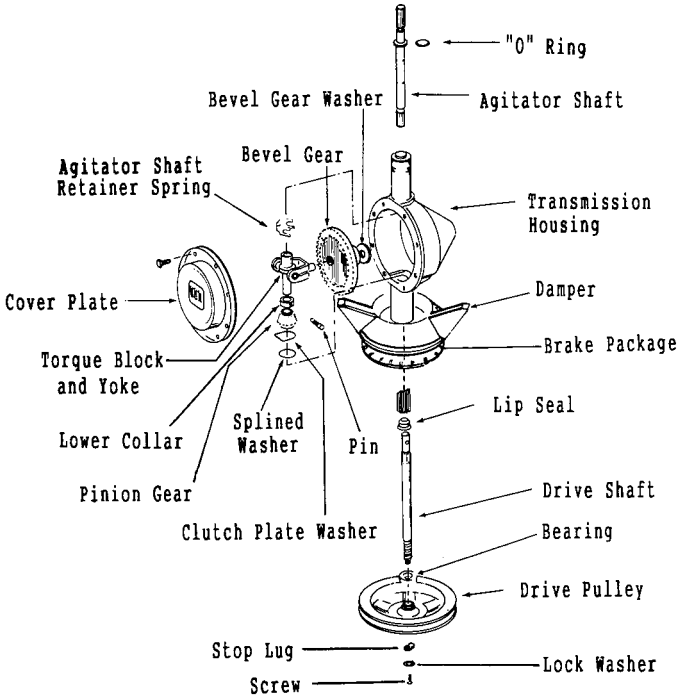
As the helical shaft is pulled downward the two clutch washers under the pinion are forced together. This is done rapidly and slippage occurs only during the first two or three revolutions, until the film of oil between the two clutch washers is forced out.

The drive occurs when the washers are forced together and pulley has climbed the shaft as far as it can. The driving force has locked the pulley, brake rotor and transmission together. All will turn as a unit in the same direction as the pulley is turning, causing the tub to spin (counterclockwise viewed from the top).

Spin Cycle Completed

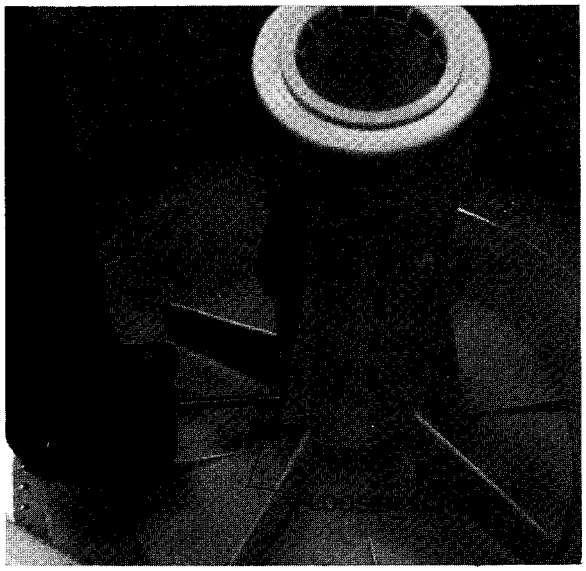
When the washer reaches the end of the spin cycle, the driving force is removed. Thus, there is no force supplied to lock the components together or compress the brake spring. The momentum of the spinning tub drives the pulley downward allowing the brake spring to press the brake rotor down. The rotor presses the oil in the lip of the brake drum out of the way and contacts the drum surface and stops the tub.

Replacement of the internal transmission components can be done without removing the transmission from the washer. Therefore, you will no longer replace the entire transmission assembly. Any internal component that fails must be replaced as needed.

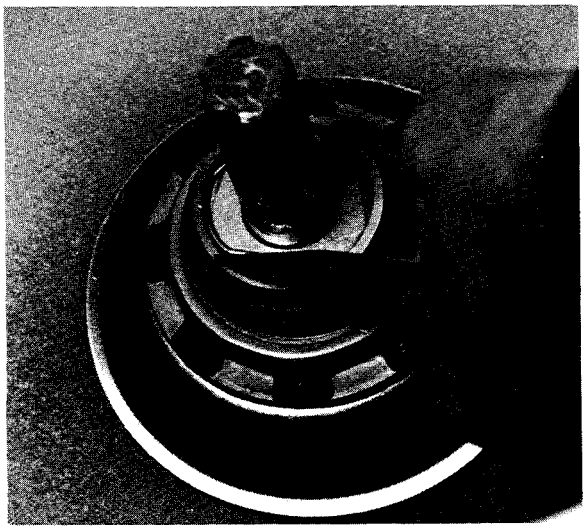


TRANSMISSION REPAIR PROCEDURE

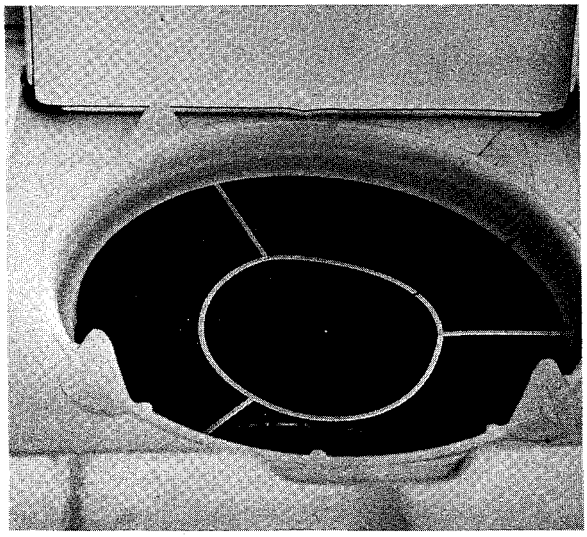
1. Disconnect unit from power source.
2. Loosen the screw in the agitator and remove.



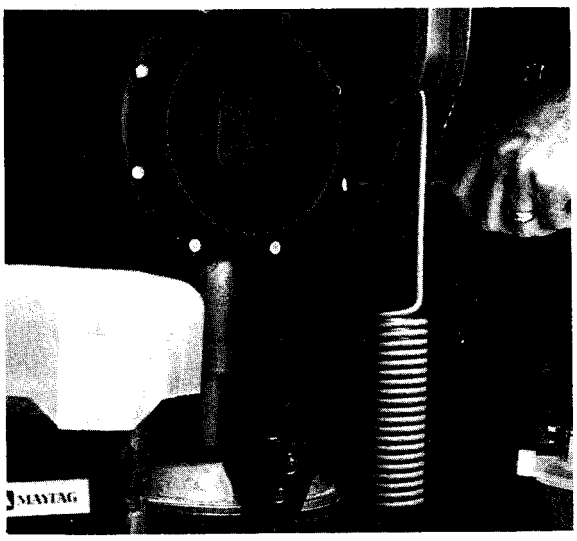
3. Remove the retaining clip for shaft seal. This is located in the top of the mounting stem and is easily removed with a screwdriver.



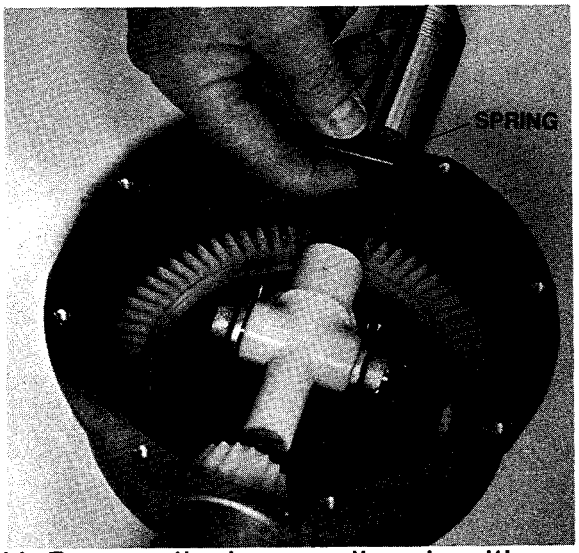
4. Remove the front panel.
5. Lay the washer on its back and remove the belts.
6. Place the tub block in the tub.



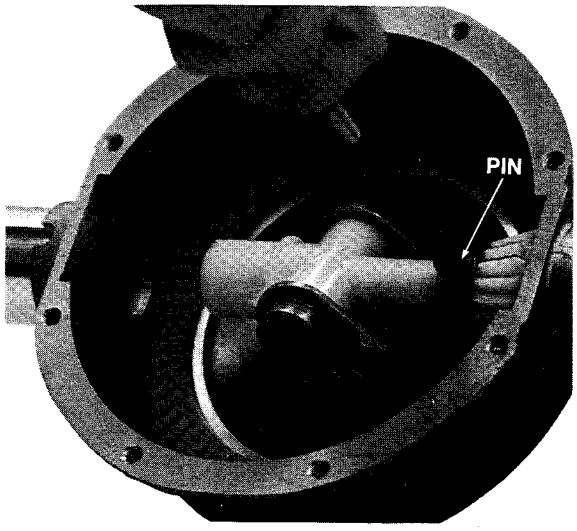
7. Place an oil catch pan under the center hub of the transmission. The motor cover will do for this.
8. Remove the eight (8) hex head bolts with a 7/16 nut driver. Be sure the bolt heads are facing up. This will insure that you will not get oil all over the back of the washer should the cover come loose. Cut around the cover to separate silicon Maytag RTV sealer used as a gasket.



9. Remove the cover plate (it may be necessary to pry the plate off with a screwdriver). Carefully rotate the transmission, dumping the oil into your catch pan.
10. Remove the agitator shaft retaining spring by pulling it out and off the agitator shaft. Care should be taken when removing.



11. Remove the lower collar pin with a 3/16″ Allen wrench.

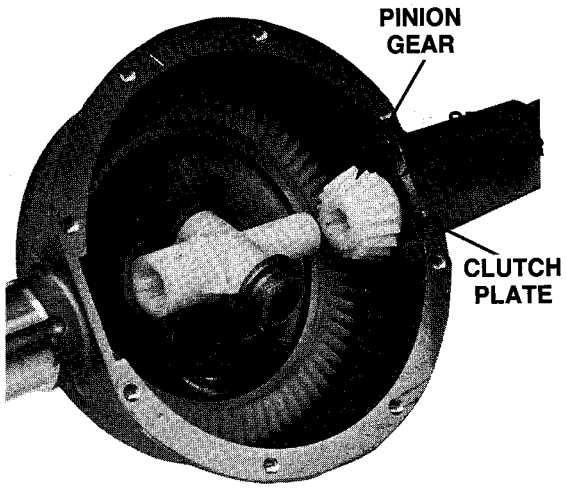


12. Grasp the drive pulley and slowly pull the center shaft out. Only a small amount of force will be needed to remove the shaft. Be careful not to damage the lip seal at the bottom of the transmission.

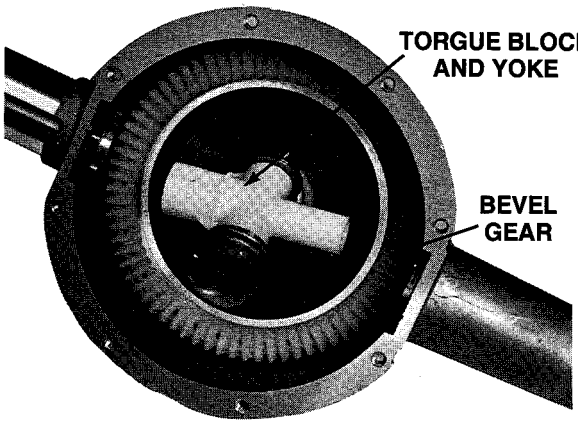
13. Pull the agitator shaft out through the tub. Remove the "O" ring from shaft.

    Note: You may have to pull hard on this as the oil in the torque block forms a suction.

14. With the agitator and drive shafts removed, simply lift out the following parts: lower collar and pinion gear, followed by the clutch plate and splined washer which are both located under the pinion gear.



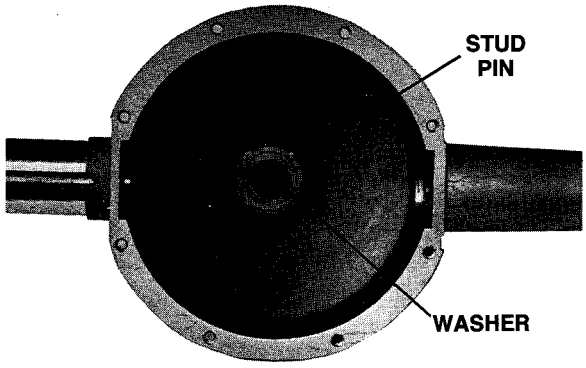
15. The torque block and yoke can now be removed as can the bevel gear. Underneath the bevel gear is a spacer washer. Remove it.



16. At this point, all components to be reassembled should be cleaned. Also, clean any silastic from the transmission housing and cover before reassembling.

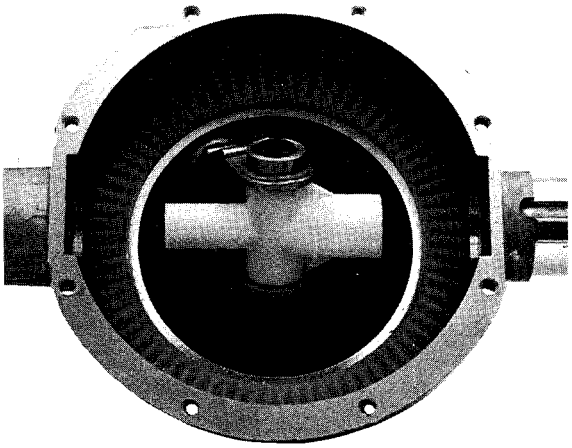
REASSEMBLY

1. Install spacer washer followed by the bevel gear on the center stud pin. Apply thin film of oil on stud before installing gear.

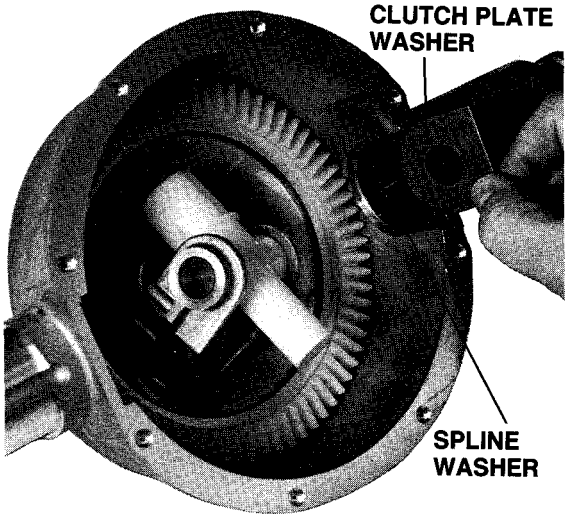


2. Place pivot stud of torque block yoke into the hole in the bevel gear. Point the unsplined portion of the torque

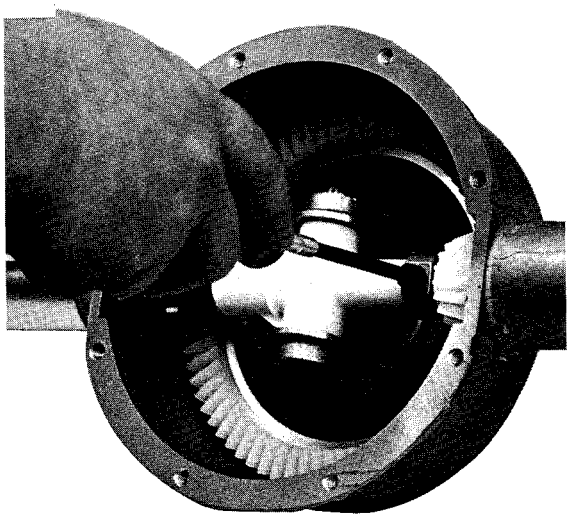
block towards the bottom of the washer.



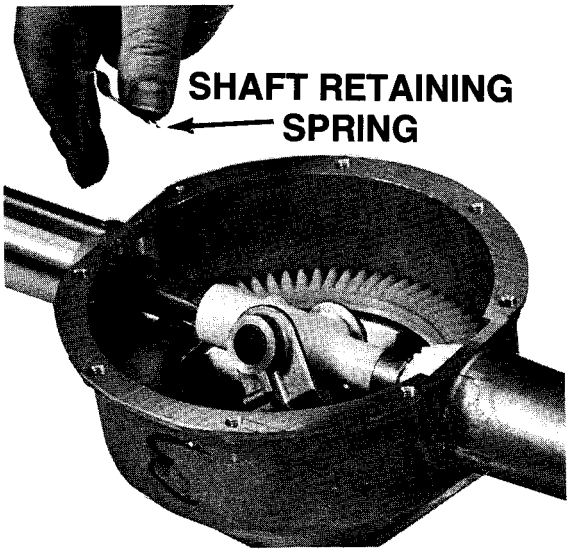
3. Place the copper splined washer on the bottom and clutch plate washer on top, and lay them in the slot as shown.



4. Place the pinion in line with the drive shaft hole, then push the drive shaft through the various components until it is flush with the top of the pinion gear. Some minor twisting of the shaft will be required in order to line up all of the splines.
5. Now place the lower lock collar between the unsplined portion of the yoke and pinion gear. Push the shaft into the smaller unsplined portion of the torque block and yoke.
6. With all of the parts of this segment aligned and in place, install the pin for lock collar and tighten. Use thread locking compound on pin threads.

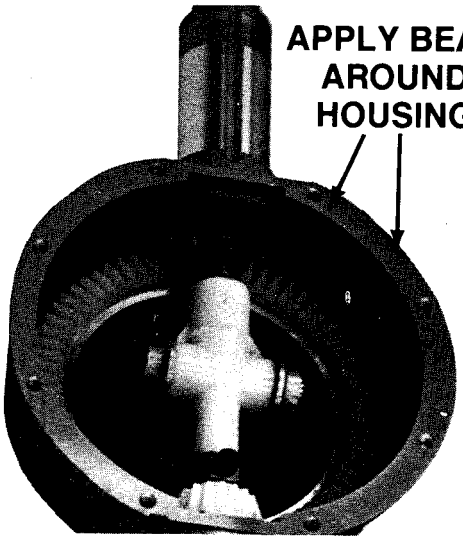


7. Insert the agitator shaft in through the top of the transmission housing. Align the splines and push together.
8. Place the agitator shaft spring into the groove portion of the agitator shaft. Squeezing the spring together will be required before it can be inserted into the groove.

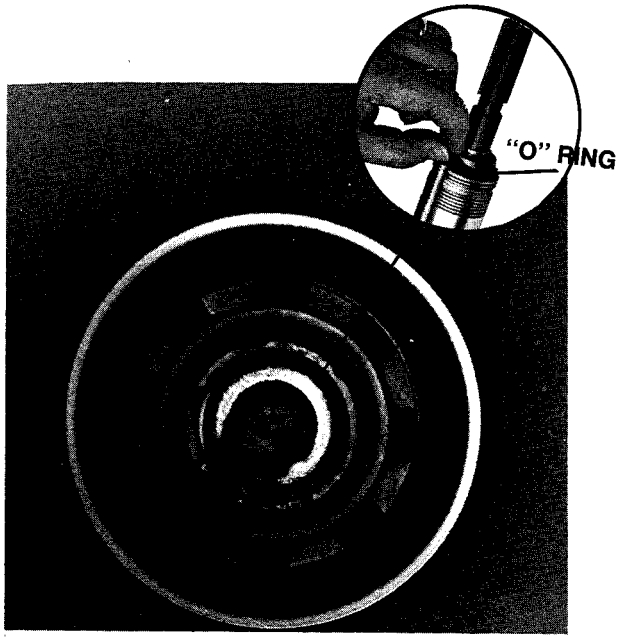


9. Rotate the drive gear (counterclockwise) to check the transmission for proper operation.
10. Apply a new bead of Maytag RTV silastic to the edge of the trans-

mission housing. Fill with Maytag transmission oil. One bottle is a complete fill.



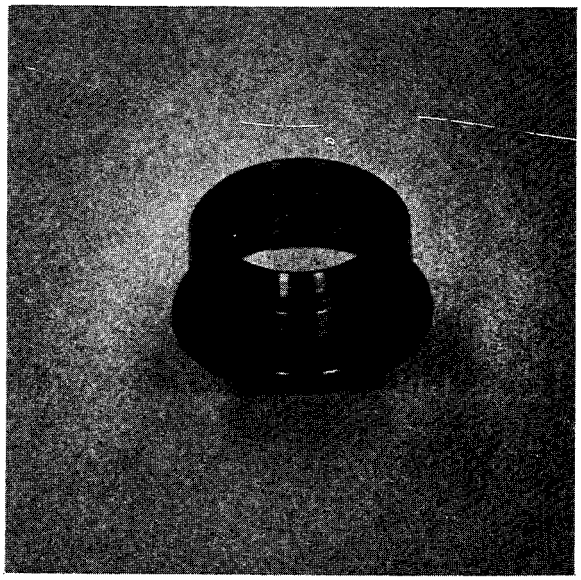
11. Place the cover on the housing. Insert the eight (8) bolts and tighten. Be sure not to over tighten these eight (8) bolts so as to prevent stripping the threads.
12. Reinstall the belts and front panel. Place washer upright and remove the tub block.
13. Insert the "O" ring over the agitator shaft. With the use of the two screwdrivers, work the "O" ring over the collar and back into the "V" groove between the agitator shaft collar and the upper stem bearing.



14. Install shaft seal, retaining washer and snap ring into the mounting stem.
15. Reinstall agitator and lock in place by tightening set screw.
16. Reinstall washer, level and check for proper operation.

LIP SEAL

A lip seal is used to keep the oil in the transmission. It is located at the bottom of the transmission and is pressed into a bore in the center tube. The center shaft is inserted through the seal. The lip of the seal presses against the center shaft creating a seal to keep the oil inside the transmission.

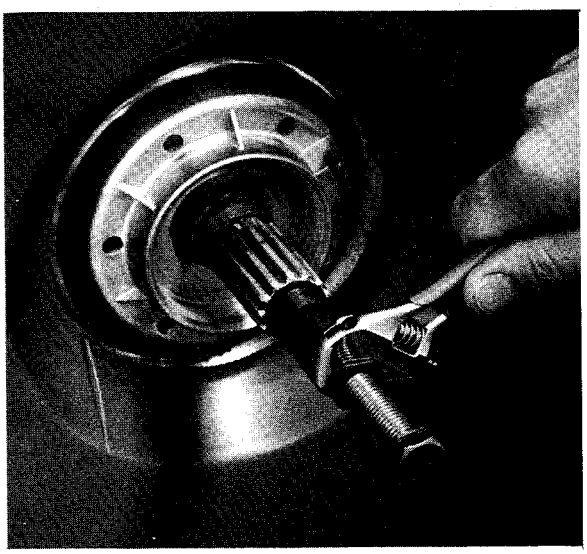


It is only necessary to remove the drive pulley to gain access to the lip seal.

Removing the seal:

1. Disconnect unit from power source.
2. Tip washer to gain access to bottom pulley. Remove dust cover from center of pulley. Remove #2 Phillips screw & lock washer from bottom of drive shaft.

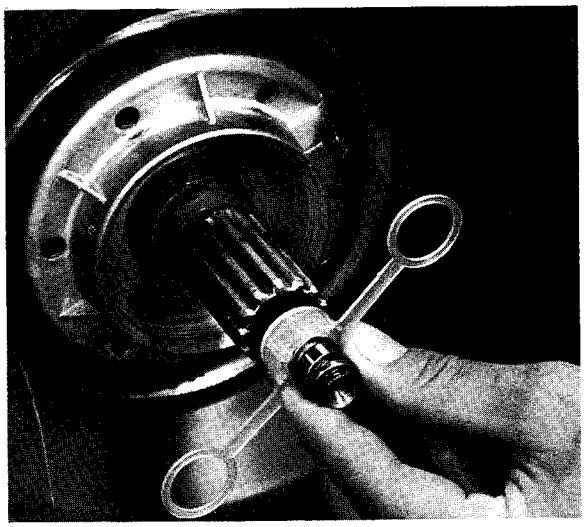
3. Pry drive lug off drive shaft.
4. Spin drive pulley off shaft (c.c.w. from bottom).



5. Use the lip seal tool part number to remove the lip seal from the center tube. This tool is screwed into the lip seal and the lip seal is removed by turning the bolt against the center shaft.

   Note: You may need to hold the transmission when tightening the lip seal tool and when replacing the lip seal to keep the transmission from rotating.

6. Clean lip seal bore in the center tube with choke cleaner to remove any oil. Make sure area is clean and dry.
7. Press new lip seal over Seal-Protector. The Seal-Protector is designed to protect the seal area of the lip seal from rolling over or tearing as the seal is pressed into the center tube of the transmission.
8. Slide assembly over square thread of center shaft until the lip seal starts into the center tube bore.



9. Turn drive pulley onto the center shaft and against Seal-Protector. Tighten pulley to press lip seal into center tube bore. Back pulley off and check to make sure lip seal is pressed into position (flange of lip seal should be against end of center tube).

10. Remove pulley.
11. Using the loops, remove Seal-Protector and discard.
12. Replace pulley and belts. Be sure rotor bearing is on drive pulley correctly with "cup" of bearing over hub of pulley.
13. Place washer in upright position. Replace front panel and remove tub