INTRODUCTION:

This kit is intended for rebuilding and restoring most variants of vintage Leslie ® fast motors. When shipped from the factory, motors contained a combination of shims for centering the rotor in the coils. Not all motors were shimmed using the same materials, and many were assembled without the metal washers on the ends of the washer stacks. Over the years, many of these shims and felt washers have disintegrated. When this occurs, the rotor shifts downward and becomes misaligned with the coils. Mechanical noise increases, and sometimes it becomes difficult to properly set up the slow motor idler wheel. As long as the bearings, shaft, and rotor are good, this kit will allow you to properly shim the motor, center the rotor, and bring back quiet, reliable performance.

Kit contains 4 felt washers, 8 metal washers, 10 Nylatron shims. enough to repair two motors.

INSTRUCTIONS:

1. Before disassembling the motor, it is a good idea to score or mark the outside of the motor across the end bells and laminations so that it can be properly reassembled. Remove the split ring clips without scratching the shaft or damaging the clips. Once the clips are removed, polish both shafts using a drop of oil and 000 crocus or emery cloth with the motor running to remove grime and scratches. This will make it easier to remove the end bells and will help prevent damage to the bearings.

2. Disassemble the motor. Inspect the existing shims and their locations. Salvage any parts that are still in good condition. Usually the shims on the "top" of the motor (the side not affected by gravity) are still OK. Note the thickness of this stack as it can be used as a starting point for the steps that follow. Also note which way the rotor is oriented in the coils (tapped end usually on wire inlet side.)

3. Clean the dust and dirt out of the motor housing and bearings. Again, clean and polish the shafts, being careful not to scratch them. Soaking the end bells in denatured alcohol or another solvent overnight is recommended. Remember to wait until they are completely dry before oiling or reassembling the motor.

4. Using the illustration as a guide, rebuild the shim stacks with the new and salvaged parts. Metal washers should go on the outer ends of each of the stacks as illustrated. Try to reuse any phenolic washers. Nylatron shims replace the fabric shims shown.

5. Remove or add Nylatron shims to each of the washer stacks to center the rotor in the coils. Be sure to put them in the properorder. Because of the new metal washers, all shims may not be needed to get the right stack thickness.

6. Test the spacing and centering by replacing the end bells of the motor. Do not yet screw them together. While holding the covers in place, check to see that there is less than one 'shim thickness' worth of vertical movement in the shaft. The rotor should be centered in the coils. Look through the holes on the covers of the motor to verify this, or check the rotor positioning on both sides by removing one end bell at a time. If necessary, go back to step 5 until satisfactory centering and spacing is achieved.

7. If you soaked the end bells in solvent, make sure they are completely dry. Oil the felts and bearings with Leslie oil or good electric motor oil. Put a drop or two on the new felt washers.

8. Reassemble the motors, being careful not to pinch or damage the wires. You may want to add heat-shrink tubing to older cloth insulated wires.

9. Test motor. If motor is noisy, tap the shaft on each end to re-center the bearings.

10. Congratulations, you're done! Feel free to contact us with any questions, comments, or concerns.

FAST MOTOR. EXPLODED DIAGRAM