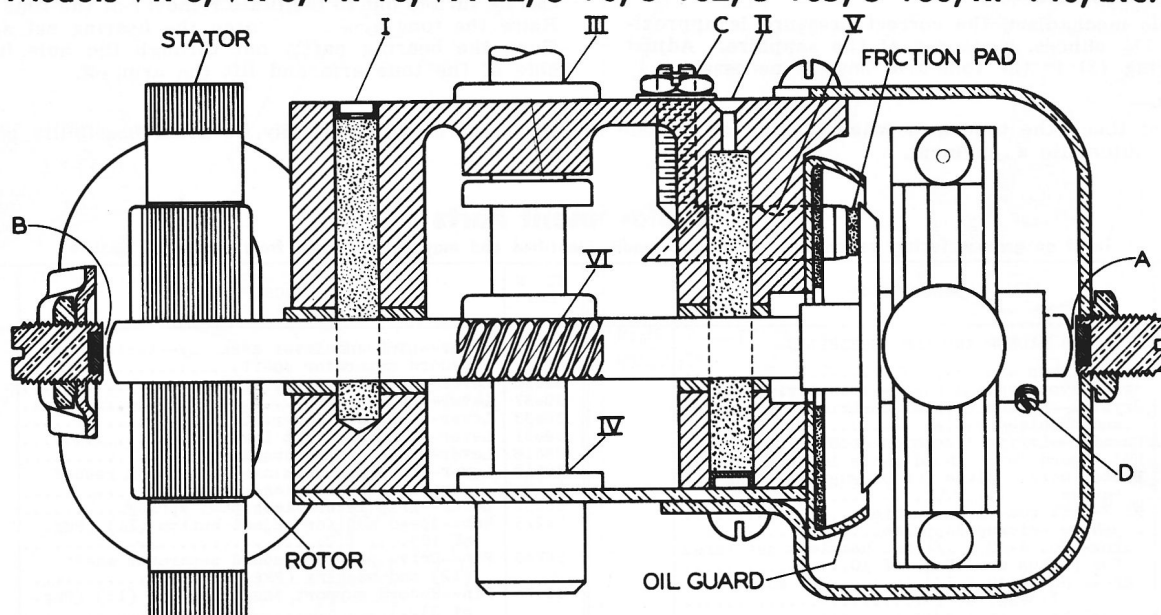


# GOVERNOR MOTORS

Used in

Models VR-6, VR-8, VR-10, VA-22, U-70, U-102, U-103, U-160, RP-140, Etc.



## Lubrication and Adjustment

To assure normal and satisfactory operation, every motor requiring service should be lubricated and adjusted as follows:—

- (1) Remove motor end brackets, bottom cover containing lower spindle bearing, and governor. Slide vertical spindle downward, remove C-washer; then push upward to disengage worm gear. Slide rotor and shaft from motor.
- (2) Clean rotor bearings and rotor shaft thoroughly with "Carbona" or "benzine." Flush oil reservoirs I and II with the same solvent, preferably after removing oil wicks.
- (3) Remove governor felt friction pad V. Replace this pad with revised type Stock No. 34058, being certain to saturate thoroughly with oil.
- (4) Put slight amount of oil in each rotor bearing, and re-insert rotor shaft. See that shaft revolves freely when in position.
- (5) Oil bearing IV, grease gear VI, and re-install bottom cover; checking to assure that vertical spindle revolves freely and worm is properly meshed after cover is in place and screws tightened. Do not misplace small disc of bottom thrust bearing.
- (6) Inspect governor to see that springs move freely under retaining washers, and that governor is otherwise in good

condition. Install on rotor shaft, checking for possible bind of sleeve on the shaft.

- (7) Replace end brackets containing thrust screws "A" and "B"
- (8) Adjust thrust screw "A" so that one steel lamination of rotor shows beyond the stator laminations as illustrated. This positions rotor at the electrical center of the stator, for maximum torque.
- (9) Adjust thrust screw "B" to provide 1/16 inch clearance from end of rotor shaft.
- (10) Fill both wells I and II with oil. At least 30-50 drops are required. Also oil bearing III.
- (11) Position governor so that when it is fully contracted (closed), the friction disc is aligned with outer edge of oil guard. Tighten set screw "D"
- (12) Connect motor to source of power, and adjust screw "C" to give 78 R.P.M. After allowing motor to run a short time, to compress felt pad. It may be necessary to re-check position of governor to give sufficient range of speed adjustment.
- (13) Test motor, after allowing it to reach operating temperature, by grasping spindle and noting relative amount of force required to cause governor to contract. Also stall motor, and release, to see that governor has "snappy" response.

## Special Notes

- (1) Do not interchange parts of different motors, especially bearings, shafts, or gears.
- (2) Where a new rotor or turntable spindle is installed, allow motor to run-in for eight hours; preferably under load.
- (3) The motor should not be tested or used at temperatures below 65 degrees Fahrenheit.

- (4) Where thrust bearing screw "A" is badly worn or does not have a fibre insert, replace with RCA Stock No. 31616.
- (5) Governor motors should be thoroughly lubricated after approximately 300-500 hours of operation. This is equivalent to 1-2 years usage in the average home.

## Lubricant Specifications

Only mineral base oils and greases should be used.

- (1) For points requiring oil, use a type having a high viscosity index (with a viscosity rating of SAE 20-30),

## Governor Waver—Causes

Drifting of motor speed at a slow rate, or erratic shift to other than normal speed, is generally caused by (1) binding of rotor or spindle bearings due to lack of lubrication, (2) scored shafts or bearings, (3) binding due to tight adjustment of thrust bearing "B", (4) binding of turntable spindle bearing on motor board (where used), (5) improper centering of motor with respect to turntable spindle.

## Governor Chatter—Causes

When the governor rattles or flutters rapidly, accompanied by excessive mechanical noise, the likely source of trouble is

- (1) glazed felt friction pad due to lack of lubrication, (2) rotor not centrally positioned in stator, (3) thrust bearing "A" worn, (4) mis-aligned or rough governor disc.