

Fig. 12 – Tool J35516 Inserted Between Low Speed Weight and Riser

### Governor Gap Adjustment Procedure

These procedures permit adjusting the gap while the governor is installed on an engine or removed and on a bench.

Before adjusting the gap on "TT" governors, the Belleville spring retainer nut must be backed out until there is approximately .060" clearance between the washers and the retainer nut (see Fig. 14).

#### Setting the Gap – Governor on the Engine

1. Disconnect any supplementary governor devices.
2. Set the engine idle speed at 600 RPM and stop the engine.

**CAUTION:** Disconnect the grounded battery cable (s) to prevent accidental engine cranking and possible personal injury while the gap is being checked or set.

3. Clean and remove the governor cover. Discard the gasket.
4. With the engine stopped, manually bar the engine over in the direction of normal engine rotation until the governor weights are in a horizontal position.
5. Insert governor weight wedge Tool J35516 between the low-speed weight and the governor riser (see Figs. 12 and 13). The tapered face of the wedge should be against the riser and positioned between the flanges on the ends of the riser.

6. Push the wedge as far to the bottom as it will go, forcing the weights against the maximum travel stop.

**NOTICE:** Do not use a screwdriver to pry the weights, since damage to the weights, riser, or housing could result.

7. Use a feeler gauge to set the gap between the low speed spring cap and the high speed spring plunger at .008". Then tighten the governor gap adjusting screw lock nut (see Figs. 14 and 15).
8. Push down on the governor weight wedge tool to be sure it did not move while the gap was being set. Recheck the gap while holding the tool in this position. If the gap is incorrect, reset to .008", repeating the steps outlined above.
9. Remove the wedge.

**NOTICE:** The buffer, idle speed, no-load speed and starting aid screws, the injector racks, and supplemental governor devices require adjustment whenever the governor gap is changed.

10. Reset Belleville springs (see Section 14.3.5 of the Engine Service Manual).

#### Setting the Gap – Governor on a Bench

**NOTICE:** When setting the governor gap on a bench, the governor *must* be mounted on a blower to support and protect the governor weight carrier shaft.

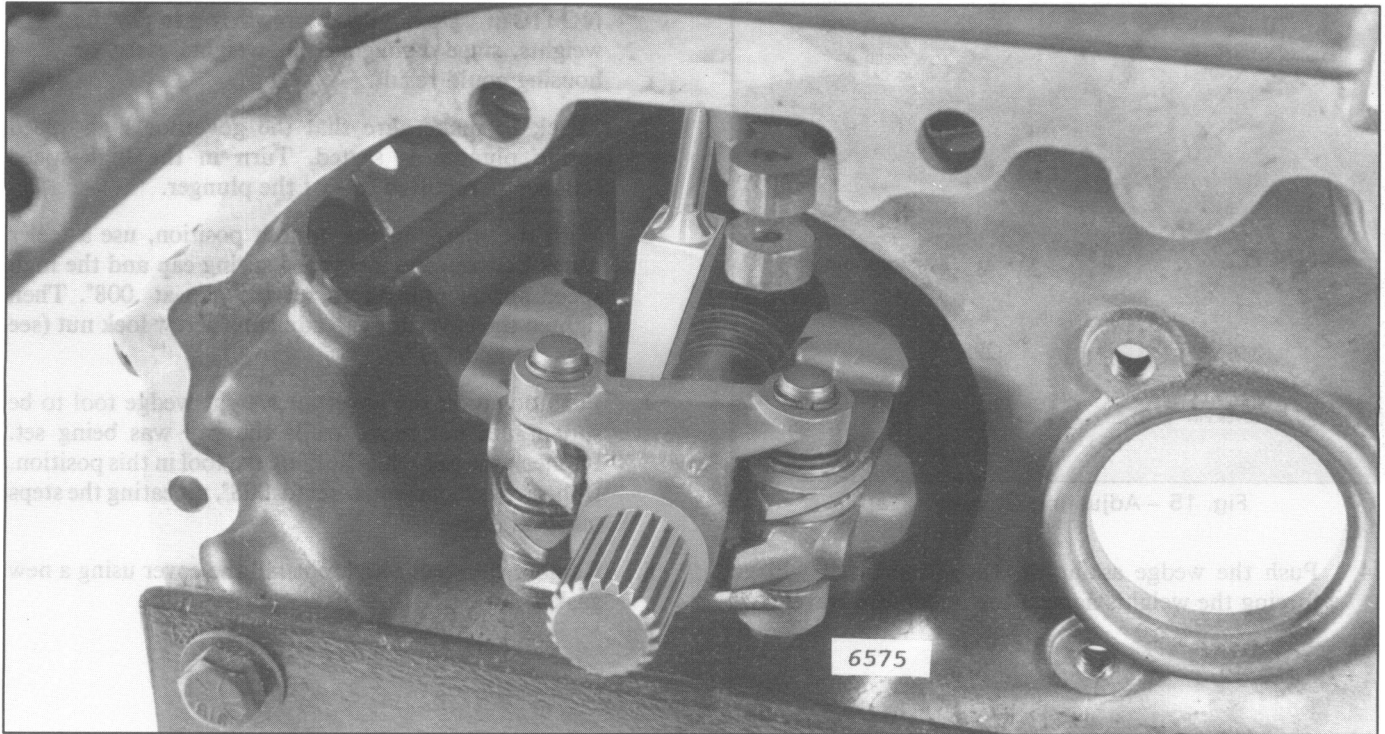


Fig. 13 – Wedge of Tool J35516 Between Riser and Low Speed Weight (Detail)

1. Position the idle screw. On all Non-“TT” governors with a normal 1.00" long idle adjustment screw, the screw should be set so that it extends .325". On all “TT” governors with a normal 1.00" long idle adjustment screw, the screw should be set to extend .400". This dimension is measured from the face of the idle speed adjusting screw lock nut to the end of the idle speed adjusting screw with a tolerance of  $\pm .015$ " (see Fig. 14). For governors with a variable high-speed option, which use a 1.75" long idle adjustment screw, the screw should be set to extend 1.075" on all non-“TT” governors or 1.150" on all “TT” governors.
2. These idle screw projections result in a nominal 600 RPM idle speed.
2. Rotate the governor weights until they are in a horizontal position.
3. Insert governor weight wedge Tool J35516 between the low-speed weight and the governor riser (see Figs. 12 and 13). The tapered face of the wedge should be against the riser and positioned between the flanges on the ends of the riser. To prevent the weights from rotating when the governor weight wedge tool is inserted, a clean, soft rag should be wedged between the blower housing and the blower rotors.

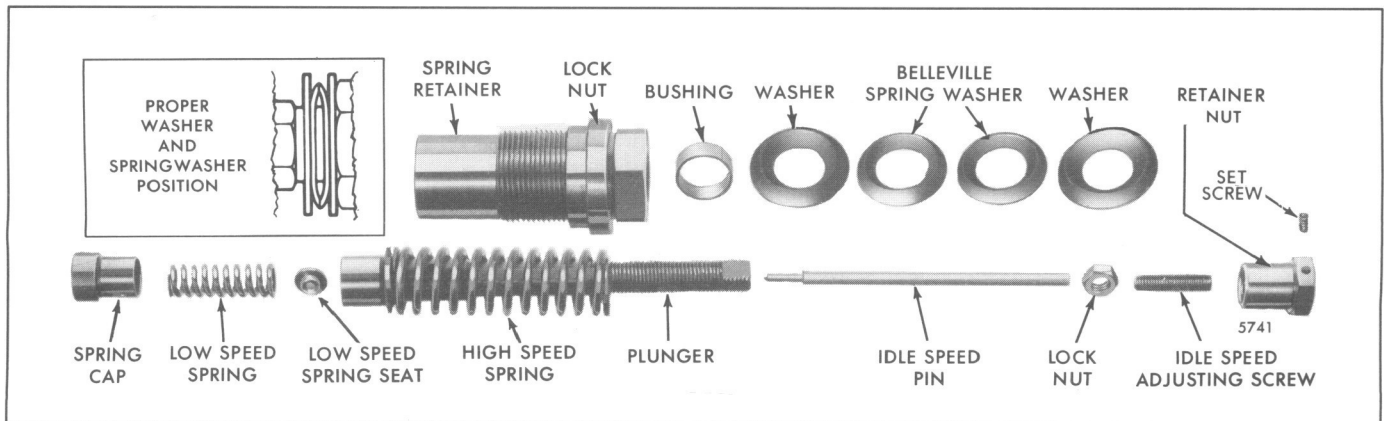


Fig. 14 – High and Low-Speed Springs and Plunger Details Including Belleville Washers (TTA Engines)