N Technical Bulletin EQUIPMENT

Bulletin number #CPETB7070001

## **Adjust Governor Droop**

Issue Date: 11/17/2015

This bulletin covers the following Champion Power Equipment models (*Note*: Read instructions completely before performing service):

## All Champion Power Equipment products equipped with a 717cc or 754cc engine

## Instructions to adjust governor droop

- 1. Engine speed droop is difference in RPM from high speed no load (HSNL) to 100% load where throttle is close to touching WOT stop.
- 2. The main governor spring is normally in hole #5 to target 240 RPM (4 Hz) droop
- 3. The factory may set the spring in other hole# to adjust for batch variation
- 4. Governor may need to have droop reset for following reasons:
  - a. After many hours (300-500 hrs) of operation to compensate for wear. Droop usually gets wider with wear.
  - b. If the generator is experiencing wide speed droop from HSNL to 100% load
  - c. If the generator is experiencing speed instability /speed hunting due to tight droop.
- 5. If engine has many hours on it (300-500 hours) then reset governor to WOT first.
- 6. To reset the governor droop do the following:
  - a. To tighten droop move governor spring closer to the governor shaft paddle pivot (a lower hole #).
  - b. To widen droop move governor spring further away from the governor shaft paddle pivot (a higher hole #).
  - c. Reset engine speed to 3750 RPM (62.5 Hz) HSNL
- 7. Check the running performance for droop & stability.
  - a. If droop is adjusted too tight, then you may encounter no load speed hunting
  - b. Load engine to 100% load. Droop should be near  $240\pm60$  RPM ( $4\pm1$  Hz)
  - c. HSNL should be 3750 RPM(62.5Hz) and mid-load operation should be near 3600 RPM(60Hz).
  - d. Flick throttle or governor lever to upset the speed balance. Engine speed should recover and run steady within 8-10 seconds.



## **Adjust Governor Droop**



To widen droop move spring to high hole# To tighten droop move spring to lower hole#