



Best Practice Update: GOVERNOR MAINTENANCE

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**SUBJECT: Governor Throttle Cleaning & Maintenance Procedure.
Availability of Governor Manifold Upgrade Kit (UGK) Part # 877-00017 A**

Models: PP20

Symptom: Governor's throttle plate gets stuck shut, so engine won't start. Also, poor performance and/or low or varying power, and "hunting" (i.e. rising and falling of engine RPM/frequency) from "crunchy," unsmooth throttle motion.

Cause: Tar and soot building up in governor throttle butterfly shaft and bearings preventing smooth and free movement.

Actions: Governor throttle **must be cleaned after every run & checked or cleaned before starting.** If the following procedure is strictly adhered to on new governors, bearings should remain free.

Procedure: Clean and lubricate the throttle shaft, throttle butterfly plate and throat thoroughly immediately after every shutdown.

NOTE: Cleaning is much easier when the dirt is fresh and parts are warm. If the normal tar deposits are not cleaned following a run, they can thicken as they cool and may glue the throttle closed which can keep engine from starting. If you wait to clean, it will take more solvent and effort to get it clean.

You will need rubber gloves, a squirt bottle of solvent, rags or paper towels, a long rod or screwdriver, automotive grease (white lithium, axle etc.) and 2.5 mm hex key.



NOTE: If you do not already have a quick-release sani clamps, you should install the Governor Upgrade Kit (UGK APL # 877-00017 A) to make governor removal easier.

The latest *Operation Manual* and *Technician's Handbook* for your mode lare available online at www.allpowerlabs.com/support

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1. Disconnect plug from governor by pushing down the two locking tabs and pulling it away.



2. Loosen the two sani clamps and remove the whole governor.



3. Use squirt bottle and solvent used for lighting gasifier to rinse both sides of the throttle.



4. Work the throttle plate open and closed while wet with solvent until it moves smoothly and doesn't stick, move roughly or feel "crunchy."



5. Wipe off plate & throat, then push a half sheet of paper towel or small rag all the way through both sides a few times to remove the softened soot & tar.



6. Repeat steps 3,4,& 5 until the throttle moves smoothly and snaps fully shut easily from fully open just by the force of the spring.

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7. Using any standard automotive grease, use your finger to lubricate the throttle shaft with a small fingertip full of grease.



8. Push the grease into where the shaft goes into the housing, and make sure to do it to both the right and left sides both top and bottom.



9. Use a paper towel or rag to wipe off excess grease. Get as much as possible, only the grease pushed into the shaft is useful.



10. Removing end cover and cleaning and greasing outside of one bearing can help fix badly working governors.

Reinstall governor. If done after every run throttle it should remain free. If it gets too dirty and remains sticky after repeated rinsing and working of throttle, bearings need to be replaced. Procedure to clean or replace the bearings is described in [8.3.1 of the Technician's Handbook](#) and [Governor Overhaul Technical Bulletin](#)

However, deeper cleaning can allow continued but temporary operation until the governor overhaul and bearing replacement described above can be carried out.

1. Soak the aluminum throttle-body section **ONLY** of governor in **CLEAN** solvent 1 hour to overnight.
Note: Cleaning Kit (APL# 860-00127 A) includes covers that allow soaking without dunking.
2. As soon as throttle action is free, wipe off the solvent and tar, then grease as above.

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