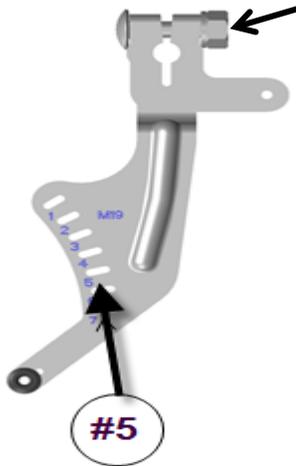


## Instructions to set mechanical governor (static governor adjustment)

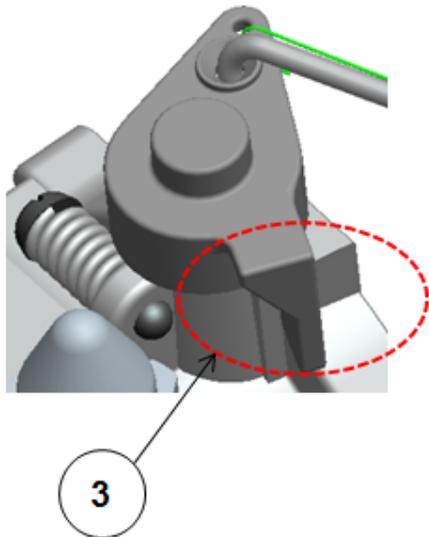
Purpose: To remove any play in the linkage between the internal governor and the carburetor assembly.

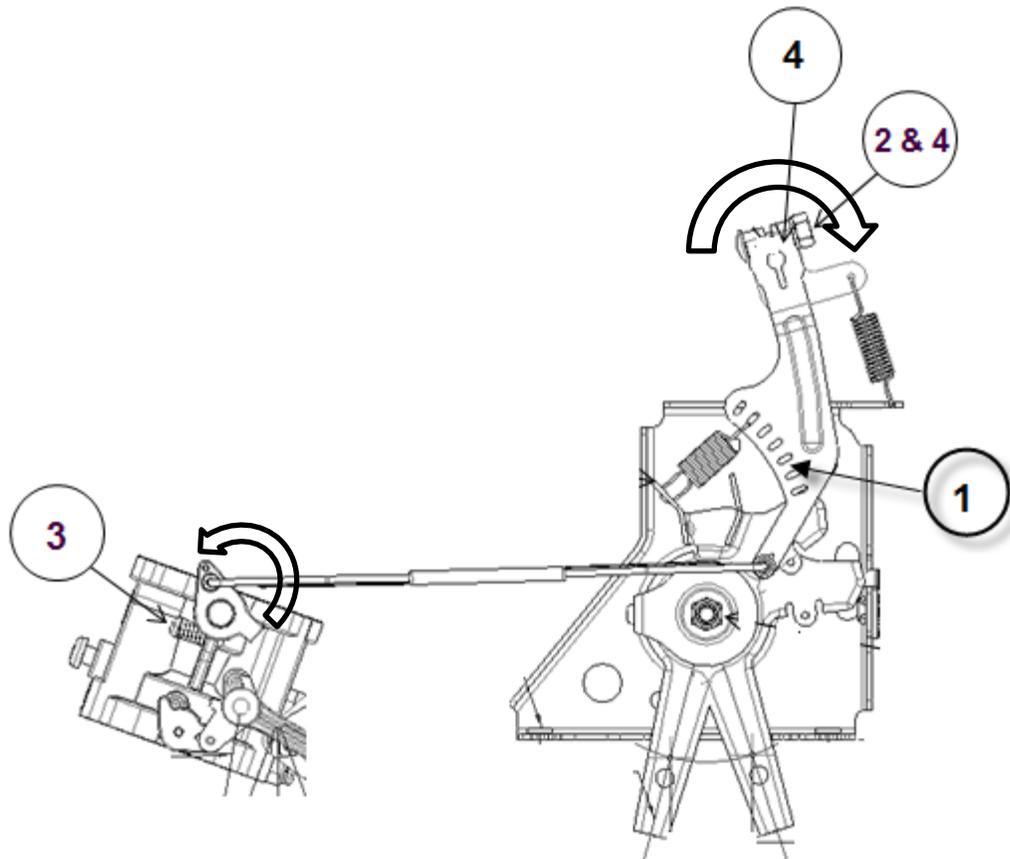
This process is done with engine ***NOT*** running, remove spark plug wire from spark plug.

1. Remove drive system from crankshaft, verify there is nothing is on the engine crankshaft (no clutch, pulleys, washers, keys, bolts, etc.) this will ensure that nothing can fly off the crankshaft when engine is running.
2. Verify governor spring is in hole # 5.
3. Loosen nut on governor lever.



4. Rotate governor lever clockwise so that throttle is in full wide open position. Throttle stop must contact cast stop on the carburetor.





5. With throttle remaining in full wide open position rotate governor shaft clockwise as far as possible then torque the governor arm nut to 40 LB Inch (4.5 N-m)
6. If the above process is not done correctly engine could potentially run at excessive RPM's when started.
7. Verify prior to starting engine the drive is disconnected and nothing is attached to the crankshaft
8. Reinstall spark plug wire.
9. Test run engine and verify idle and top no load engine RMP prior to reinstalling drive system to the engine.

## Instructions to set / reset idle RPM, and top no-load RPM

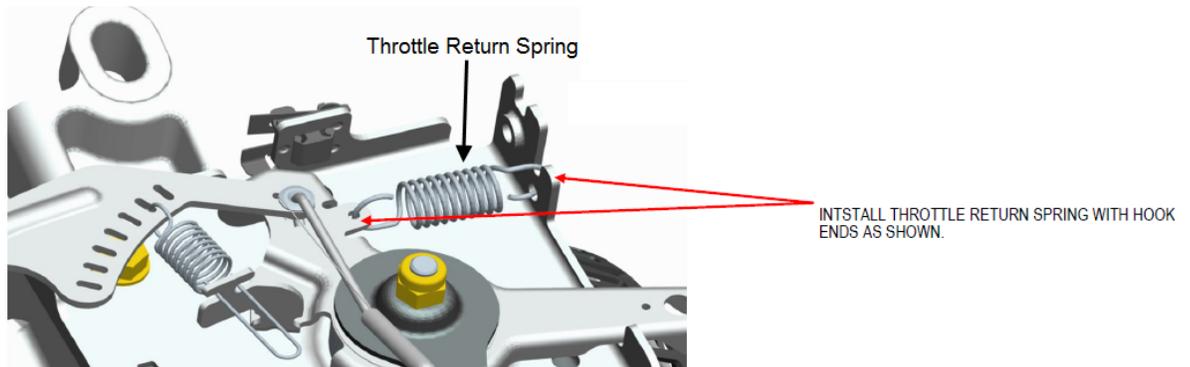
Info: Engine speed (idle and top speed) utilizes the combined spring tension of both the governed idle spring and the main governor spring.

Tools required:

		Part #
	<b>Digital Tachometer &amp; Hourmeter</b>	Meter displays rpm while engine is running. When engine is stopped, meter displays elapsed time. The maximum speed is 20,000 rpm and it updates 1-2 times per second. 19598
	<b>Tang Bender</b>	For all engines. Used for setting top no load and governed idle speeds. 19480

Normal settings: Governed Idle 1750 RPM, Top no load 3800 RPM (see rules section B2.5.14)

1. Verify engine oil level is full.
2. **Verify there is nothing is on the engine crankshaft (no clutch, pulleys, washers, keys, bolts, etc.) this will ensure that nothing can potentially fly off the crankshaft when engine is running.**
3. Verify throttle return spring is installed (see engine set up instructions)



4. Start and run engine for a few minutes to warm engine.
5. Set throttle lever in the idle position.
6. Hold throttle plate against idle screw and adjust screw to achieve 1550 RPM (this is called dead idle typically 200 RPM less than governed idle setting).
7. Set governed idle by bending the governed idle spring anchor tab to achieve 1750 RPM. This is a recommended Idle speed (see rules section B2.5.9 B)
8. Move throttle lever to full throttle position (until it makes contact with bracket and can go no further) and maintain this position.
9. Adjust (bend) the main governor spring tab to achieve 3800 RPM.
10. Release throttle lever, lever should return to idle position, if not loosen nut until lever drops freely to idle.
11. Allow engine to idle for a couple of seconds and then move throttle back to full throttle and verify maximum of 3800 RPM.

If you find that you need to reset the idle speed later on to resolve creeping (car wants to move forward because clutch is engaging) you will need to repeat the entire process in the steps listed above because resetting the idle will in turn change the top no load engine RPM.

