



!!! PLEASE READ BEFORE INSTALLING !!!



This photo displays 3 governor springs. The *smallest* spring (indicated by the red arrow above) should **NOT** be used with the 160hp, 175hp or 180hp pumps. *Without* the small spring installed, you should expect 3,000 - 3,200 rpm engine free rev. *With* the small spring installed, expect about 4,000 rpm engine free rev.

WARNING: Unless you have aftermarket valve springs & upgrades to your [fuel system](#), we don't recommend that you use the smallest spring.

The installation instructions contained in this guide should be able to address any additional precautions you might need to be aware of.

Tools you will need

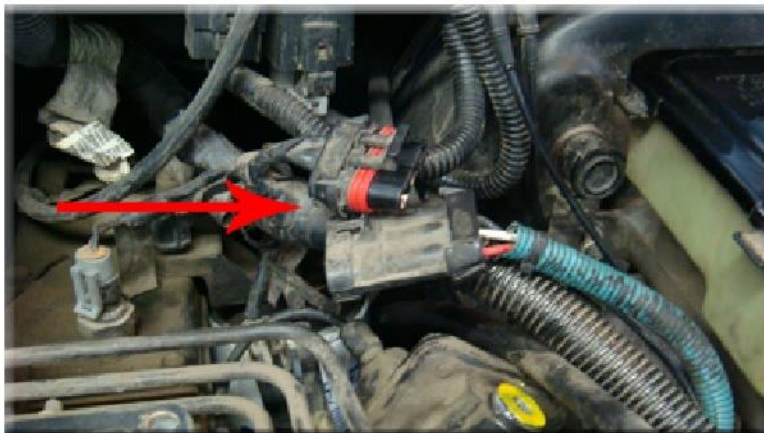
- Socket wrench	- 10mm shallow socket
- 3" socket extension	- 11mm deep socket
- Flashlight	- 7/8" socket
- 8mm end wrench	- Flat-blade screwdriver
- Venire calipers	- Pencil magnet

INSTALLATION

1. Using a 10mm shallow socket, remove the intake air horn. Remove the 5 bolts holding the intake air horn, as well as 1 bolt holding the dipstick to the air horn.



2. Unplug pigtail from the fuel shutoff solenoid.



3. At the bottom of the solenoid, there is a small hitch pin that will need to be removed. You should be able to remove this by hand.
4. Remove the two 8mm bolts holding the solenoid to it's bracket.
5. Remove the fuel shutoff arm by loosening the 8mm bolt on the forward side of the arm. Once the bolt is loose, the arm should slide off the pin.



***NOTE* - Do not lose the Woodruff key located in the shaft.**



6. Once the fuel shutoff arm is out of the way, there is a wire that must be broken to access the 7/8" plug (located under where the fuel shutoff solenoid was). This wire can simply be broken with pliers.
7. Remove the 7/8" plug from the side of the injection pump.
8. Once the plug is removed, use a flashlight to look inside the oil-filled hole and bar the motor over by hand using a 7/8" socket at the front of the alternator.

9. Carefully center the governor spring retainer - Using a flat-blade screwdriver, turn the center nut counter-clockwise. **Count each click while removing.** (Counting each click will help you to remember it's original position when reinstalling).



10. Using vernier calipers, measure the depth from the top of the stud to the bottom of the groove. Note this measurement as you may use it during reassembly. Every 90 degrees, you should count 1 click.

11. Using a pencil magnet, remove the outside spring retainer.

12. Using a pencil magnet, remove the factory governor springs.

IN PHOTO (below): Governor springs, largest to smallest. The largest spring is to be reused - it is the idle spring (indicated by the red arrow below).



13. Use caution when installing the new DDP seat and springs (be especially careful to ensure you **DO NOT** drop any parts into the injection pump). Reinstall the DDP springs in exactly the same location they were in when you removed them. Preload the springs to the same amount of clicks you counted upon removing the old springs. Typically this will be 2 or 3 clicks. If need be you can also reference the measurement you took prior to fully removing the factory springs.

14. Once the springs are installed in the governor spring retainer, manually rotate the engine again so that the opposite-sided governor spring retainer is exposed. Repeat the install process outlined in steps 9 - 13 for this governor spring retainer as well.

***NOTE* - Each of the 2 governor spring sets must have EXACTLY the same tension (clicks).**

15. Once installation of the governor springs has been completed, reinstall the 7/8" plug in the side of the injection pump.

16. Reinstall the fuel shutoff arm. **MAKE SURE YOU DON'T LOSE THE WOODRUFF KEY DURING REINSTALLATION!**

17. Function the fuel shutoff level up and down by hand to ensure the fuel shutoff arm is installed correctly.

18. Once the fuel shutoff solenoid has been reinstalled, reinstall the hitch pin and plug the solenoid pigtail back in.

NOTE - At this time, you can now start the vehicle to ensure that the idle is within 50 rpm of the factory idle. Idle speed with A/C on should be about 750 rpm. If your idle is greater than 900 rpm, disassemble and loosen each governor spring by 1 click. If your idle is less than 600, you can usually correct it by adjusting the idle linkage stud located on the back of the injection pump (the idle set screw). This can be adjusted upward for higher idle, or downward to decrease idle.

19. Reinstall the intake air horn with new gaskets (not supplied). Tighten all five air horn bolts to 18 sq. ft. pounds and the dipstick bolt to 15 sq. ft. pounds.