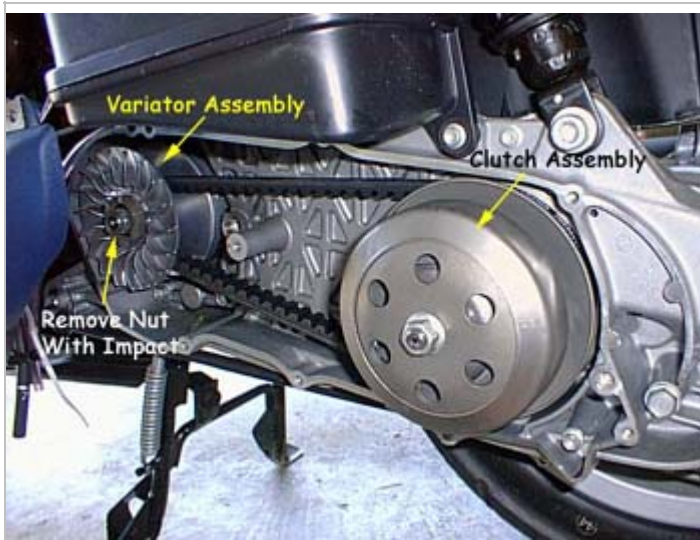




How to change your roller weights

Basics

1. Let me first start with the fact that I am NOT a mechanic. I have been working on motorcycles and scooters for a long time and know a little about what I am doing. I simply take pictures for other people to use as a guide line to help them modify their own motors. Any modifications you perform are done completely at your own risk and liability.
2. Tampering with your motor in any way may void your warranty. Make sure this is a sacrifice you are willing to make before you begin working on your own vehicle.
3. Before you begin, make sure you have a nice clean area to work in. A small amount of dirt can be a big problem when working on the innards of your motor. Keep your hands, motor, and any other parts you are handling very clean.
4. This example was performed on a 2003 Aprilia Mojito. Almost ALL scooters have the same type of transmission on them. So the same steps should apply to your scooter.
5. ALL bolts and socket head cap screws are in metric! Don't try to work on your vehicle if you don't have metric tools, you will just end up messing up the heads.



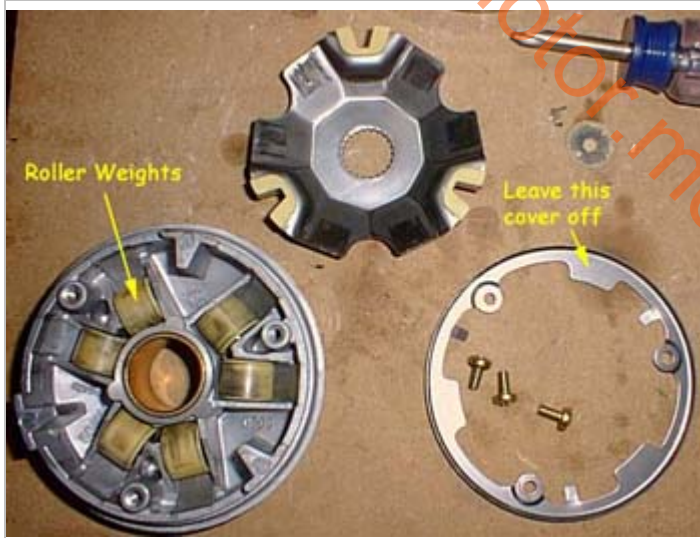
Remove the cover off your transmission to expose the entire drive train. Next impact off the nut holding the variator on. Using a strap wrench may damage your variator and you will simply be unable to remove the nut with a normal wrench. You will simply turn the motor over instead of turning the nut. So an impact driver is a must here.



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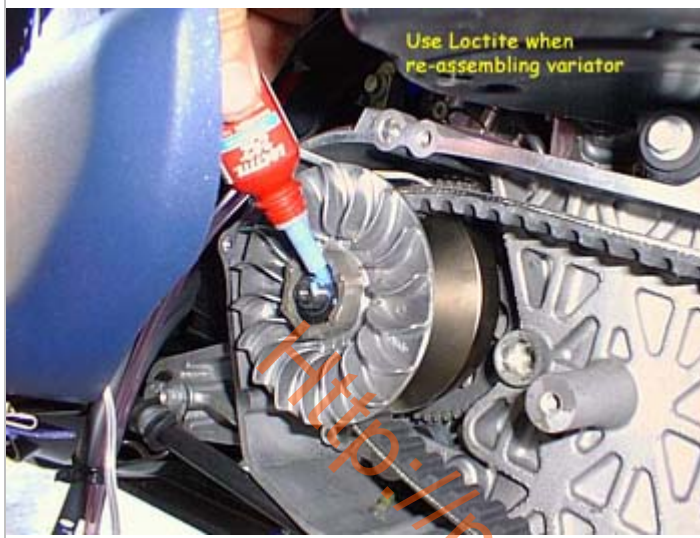
Once the nut is removed, remove the variator assembly. The variator consists of a front half, a rear half, and a shaft between them. The roller weights are located in the rear half of the variator under the ramp plate. Remove the screws holding the retaining ring and ramp plate on to expose the rollers.



With the ramp plate removed, you can now see the roller weights. Now is when you want to swap the weights with the new ones. The retaining ring can be left off. It is not required, and some say it's a form of restriction. Performance variators don't have this cover.



How to change your roller weights



When you go to replace the variator, make sure the ramp plate is on the spline and pushed up against the toothed wheel behind the variator. Be sure to use loctite when replacing the nut. It is recommended to use blue, but I have since switched to using red because I have heard of people loosing the nut while using the blue. Reassemble the variator the same as it was removed then impact the nut back onto the shaft.