

Steahly Flywheel Installation Instructions for YZ 250 2002 and newer

Carefully read these instructions before you begin installing the flywheel weight. If you do not have the mechanical abilities or proper tools then get some help. If the flywheel weight is not installed and maintained according to these instructions it could result in engine damage and/or a serious crash.

1. Remove the ignition cover from the left side of the engine. Try not to tear the gasket. Check your main bearings for wear by lifting up and down on the ignition flywheel. If you feel any movement you may need to replace your main bearings before installing a flywheel weight.
2. Remove the flywheel nut turning it counterclockwise. You will not be reusing the nut with the flywheel weight. Use one of the ideas below to keep the flywheel assembly from turning when you loosen the nut. Some of these methods **could cause damage** if you are not carefull.
 - A. Use a Steahly Engine Lock Up Tool, part number E-3, for most two strokes up to 380cc. It screws into the spark plug hole and the piston hits the plastic tip, which stops the flywheel rotation.
 - B. Use an air powered impact wrench to quickly spin the nut loose. However, this will not allow acqurate torquing when tightening the flywheel weight.
 - C. Remove the spark plug and bring the piston up to about one inch from top dead center. Feed in a few inches of rope (leave some hanging out so you can pull it back out). Make sure that the rope does not go into any of the cylinder ports. Now slowly turn the engine over compressing the rope between the cylinder and the head until the flywheel stops turning. Use only smooth torquing action while loosening and tightening nuts. Do not use hammers or breaker bars.
 - D. Put the transmission in high gear and hold the rear brake on. Be careful, if you get too rough you could break your brake caliper bracket.

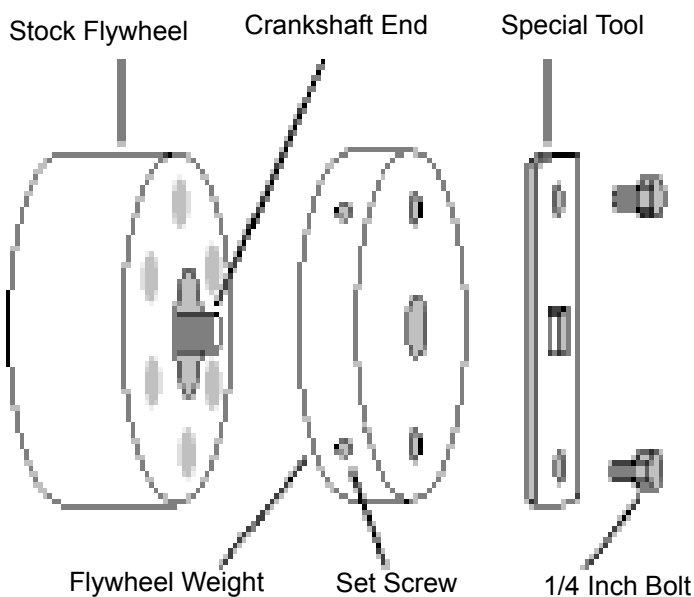
3. Remove the washer that is underneath the flywheel nut, if there is one. **NEVER use the stock washer with your flywheel weight.**

4. Check the end of the crankshaft to make sure it is not bent, the end is not flared out, and that the threads are not damaged.

5. Check the set screws in the flywheel weight to make sure they are not sticking out on the inside of the weight. **Never remove the set screws from the outside of the weight**, the screw holes have been staked (punched with a special chisel) to prevent them from coming out.

We recommend that you do not use thread lock compound (Loctite) on the set screw threads because it may cause them to seize, instead we use anti-seize or grease.

6. Bolt on the special tool to the outer face of the flywheel weight using the two 1/4" bolts.
7. Install the flywheel weight by screwing it clockwise onto the end of the crankshaft. It should screw on easily. Make sure it makes solid contact against the ignition flywheel at the same spot where the stock nut makes contact. Use a 1/2" drive torque wrench to tighten the flywheel weight to the manufacturer's recommended specifications for the stock flywheel nut. YZ 250 2002 torques to approximately 27 foot pounds. YZ 250 2003 and newer torques to approximately 42 foot pounds.
8. Bend the clutch arm with pliers to the right to make about 3mm (1/8 inch) clearance between the flywheel weight and the clutch arm.



9. Remove the special tool and two ¼” bolts. Keep the special tool in a safe place in case you need to remove the weight at a later date.
10. Screw in the four set screws and tighten them by working back and forth diagonally (like torquing a head) until they are all equally tight. **It is very important to recheck the set screw tightness after the first ½ hour of riding and on a regular maintenance schedule of about every 8 to 10 hours of riding.** Some bikes have to be checked more often than other bikes depending on vibration and other factors, so check them often until you get a feel for it.
11. Install the ignition cover using the stock gasket. The 13 ounce weight (part number 825H or 826H) must have two gaskets under the ignition cover (one gasket should be supplied with the 13 ounce kit).
12. Maintenance – A smart rider checks all of his nuts and bolts regularly, so make checking your flywheel weight and tightening your set screws part of your regular maintenance, it only takes a minute. While the cover is off wipe out any dirt and moisture and give the weight a little shot of corrosion preventing oil such as WD-40. If you do a lot of huge jumps, that is going to prematurely stress your flywheel weight (along with everything else on your bike) and you should check it more often and be aware that it may shorten the life of your flywheel weight.

Troubleshooting

Increased vibration – First be sure that it is actually vibrating more than it did before, it may be that you are just more conscious of vibration. If you are sure that it is vibrating more than before check your main bearings for wear and your crankshaft for a bent or damaged end. If everything checks out you may need to send the weight in for inspection.

Rubbing on cover – The YZ ignition cover is plastic and can easily warp. If your cover is warped you may need to replace the cover, add an extra gasket or grind a little material off the inside of the cover. The plastic cover can also get pushed in momentarily when you fall or hit something, so you may have some scuff marks inside the cover even though it does not usually rub. Heavy rubbing or the cover not fitting at all is usually caused by failing to remove the stock washer as described in step 3 or you have an aftermarket cover (which are usually metal). If you have an aftermarket cover you can purchase a cover spacer from us. Also make sure you have the right flywheel weight for your year and model of engine and make sure that you have the stock ignition.

WARNING: This product will change the power characteristics of your engine. Adding flywheel weight results in smoother, more tractable power delivery by causing the engine to rev less quickly (slower increase in engine RPM). If your engine has low power because of engine wear, lack of maintenance, improper jetting, engine modifications, or any other reason, adding flywheel weight could exaggerate the problem causing bogging or hesitation. **Use caution when riding until you are fully familiar with the power changes.**

Guarantee – Since we have no control over installation, application, or use of our flywheel weights they are sold as is. No warranty is expressed or implied. Steahly Products Inc. may, at our discretion, repair or replace a fly wheel weight that we believe is defective, however, our liability extends only to the flywheel weight and does not in any event include incidental or consequential damages. If you have a problem or installation questions give us a call, we may be able to help.

Satisfaction – If you are not completely satisfied with the effects of the added flywheel weight we may be able to work with you by customizing your flywheel weight to better suit your needs. There are many variables that may affect the amount of weight that may be perfect for your needs. Individual rider preference, riding ability, type of terrain, and engine modifications are some of these variables. If you feel that the Steahly Flywheel Weight is too heavy we may be able to remove some of the weight for a small fee. Some models can not be lightened, so call first to discuss your individual needs.