STEAHLY FLYWHEEL WEIGHT INSTALLATION INSTRUCTIONS

Carefully read these instructions before you begin installing the flywheel weight. If you do not have the mechanical abilities or the proper tools take it to a professional mechanic. **The flywheel weight must be installed and maintained according to these instructions or it could result in engine damage and/or a serious crash.**

1. Remove the ignition cover from the left side of the engine using care to not tear the gasket. Check your main bearings for excessive wear by lifting up and down on the ignition flywheel. If you can feel any movement you have worn main bearings. If there is oil in your cover it may mean your main seal is leaking. Worn bearings or seals need to be replaced before installing a flywheel weight.

2. Remove the flywheel nut (or bolt) by turning it counter clockwise. 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. Cost is about $10 dollars. This is a plastic piston stop that screws into the spark plug hole and the piston bumps into it. It is, in our opinion, the best way to take the weight on and off and works on most two strokes up to 380 cc.
B. Use an air powered impact wrench to loosen the nut and you should not need to lock up the engine, but it does not allow accurate torquing when tightening the nut.
C. Remove the spark plug and bring the piston up to about one inch before top dead center. Feed in a few inches of rope, but leave some hanging out of the plug hole so you can pull it back out. Make sure the rope does not go into any cyclinder ports. Now slowly turn the engine over compressing the rope between the piston and the head until the flywheel stops turning. Use only smooth torquing action while loosening and tightening the nut. Do not use hammers or breaker bars.
D. On some bikes you may be able to use a strap wrench or an automobile oil filter wrench to hold your ignition flywheel. You must get the right size, they come in compact, standard, and truck sizes.
E. Put the transmission in high gear and hold the rear brake on. Be careful, if you over torque or get too rough you could break your brake caliper bracket.

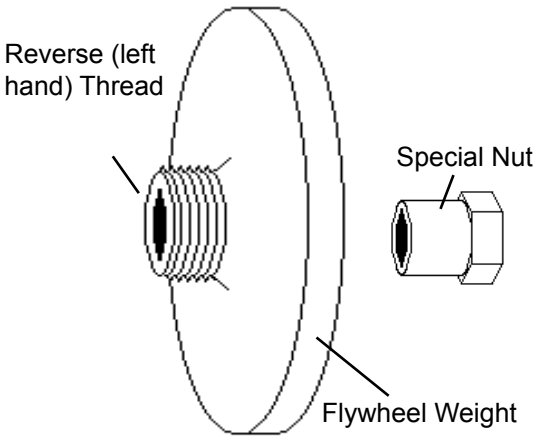
3. Remove the washer that is underneath the flywheel nut if there is one. **Never use the stock washer with your flywheel weight**. If you have a YZ 80 84-01, YZ 125 88-95, YZ 250 89 or a CR 125 05 and newer (do not use the special washer with CR 125 04) install the special shim washer by slipping it onto the end of the crank shaft. All other flywheel weights are installed with no washers.

4. Check the threads on the flywheel weight and the threads in the center of the stock flywheel (where the flywheel puller screws in) to make sure they are not damaged or dirty. Apply a small dab of anti-seize or grease to the threads. **Never use thread lock or Locktite on these threads**. Also check the threads at the crank end (where the nut screws on) for damage. Repair and clean threads if nessesary.

5. Screw the flywheel weight on to the ignition flywheel by turning carefully in a **counter clockwise (reverse) direction.** Screw the weight on and off several times to make sure it is hitting bottom solid against the ignition flywheel. **BE SURE THE FLYWHEEL WEIGHT IS SCREWED ALL OF THE WAY ON**. If you are not sure if the weight is screwing on all of the way place a small amount of soft material such as putty, Playdough, or Plastiguage on the area of the ignition flywheel where the stock nut or bolt would make contact. Next screw the flywheel weight on as far as you can by hand. Remove the flywheel weight and see if the putty is squashed at least paper thin. If not, you may need to clean and deburr the threads and work with the weight some more by screwing it on and off. Use grease on the threads. It may also help to remove the stock flywheel for a better grip. If the flywheel weight will not screw all the way on do not start the engine, it may loosen while the engine is running.

6. Tighten the flywheel weight to the stock ignition flywheel. Hand tight is tight enough.

7. Install the special nut (or bolt) and tighten to the torque specifications for the stock nut or bolt. The nut screws on clockwise (normal direction). You may use a low strength thread locking compound on the nut, but it is not necessary.



TORQUE SPECIFICATIONS FOR FLYWHEEL NUT

Bike	Torque ft/lbs	Socket Size
CR 125, 250	42	5/8” or 16mm
KX 125 all years, KX 250 83-89	22	6mm Allen
KX 250 90 and newer	42	5/8” or 16mm
KX, RM 60, 65, 80, 85, 100	27	9/16” or 14mm
YZ 80, 125, 250	27	9/16” or 14mm
RM 125 87 and newer, RM 250 87-95	27	9/16” or 14mm
RM 250 96 and newer	42	5/8” or 16mm
KTM	39	5/8” or 16mm

8. Install ignition cover using the original gasket and all the spacers and gaskets supplied with the kit. Many kits do not require a cover spacer, so if there are none in your kit you probably do not need any. A plastic cover spacer should have a gasket on each side of the spacer or a gasket on one side and silicon sealant on one side. If the cover doesn't fit, see “troubleshooting” below.

9. Maintenance includes rechecking the tightness of the center nut (or bolt) after the first 1/2 hour of riding and then after about every ten hours of riding. A smart rider checks all his nuts and bolts regularly. Make checking your flywheel weight and tightening the center nut (or bolt) a part of your regular maintenance, it only takes a minute. While the cover is off let the moisture dry out, wipe out the dirt and give the weight a light coat of corrosion preventing oil such as WD40. If you do a lot of big jumps it may prematurely stress your flywheel weight (along with everything else on your bike) and may shorten the life of your flywheel weight.

TROUBLESHOOTING

Vibration - First be sure that it is actually vibrating more than it did before, you probably have just become 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 every thing checks out give us a call.
Rubbing on the cover - Severe rubbing or the cover not fitting is usually caused by failing to remove the stock washer described in step 3 or the weight not being screwed on all of the way as described in step 5. Make sure you have the right flywheel weight for your year and model of engine and that you have the stock ignition cover on your bike. Most aftermarket covers do not fit when using a flywheel weight, so you may need to add a spacer. Ignition covers, especially plastic covers, can get bent or warped. Plastic covers can also get momentarily pushed in when you fall or hit something, which can leave scuff marks on the inside of the cover, even though the flywheel weight does not normally rub.
Loose nut or sheared woodruff key - The flywheel may not have been screwed all the way on. Go back to step 5 of the instructions.

WARNING: This product will change the power characteristics of the engine. Adding flywheel weight results in a smoother, more tractable power delivery by causing the engine to rev less quickly (slower increase of engine rpm). Take time to get used to the power changes. 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 - Because 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 flywheel weight that we believe to be defective, however, our liability extends only to the flywheel weight itself and does not in any event include incidental or consequential damages. If you have a problem or question call and 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 help by customizing your flywheel weight to better suit your needs. The amount of flywheel weight that we offer is what we have found will best suit the majority of our customers, however, there are many variables that may affect the amount that is best suited to your needs, such as engine modifications, individual rider preference, riding ability, type of riding terrain, etc. If you feel 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.

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