EPIperformance.com

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YAMAHA CLUTCH KIT INSTRUCTIONS

Model: 660 GRIZZLY 4x4 2002-2008 (STOCK TIRES) Part #: WE391030

Kits designed for Stock motor and stock exhaust at 0-3000 feet elevation.

ATV's can be dangerous. EPI has no control over the use of any part. EPI expects the customer to exercise good judgment as to the proper selection, installation, use and maintenance of any part. EPI assumes no responsibility for damage or injury of any kind because of misuse, improper installation and improper application of any parts in any way by any person. Contact your local dealer to schedule installation of this clutch kit if you are not a qualified ATV mechanic.

This product is NOT to be installed on any ATV that will be used by any person under the age of 16.

TOOLS NEEDED TO INSTALL CLUTCH KIT

- Set of metric sockets up to 27mm
- Phillips and flat tip screwdrivers
- 1 13/16 socket or wrench
- Torque wrench
- Spring tool or needle nose pliers
- Clutch compression tool (EPI Part #CCT510)
- 1/2 impact wrench
- 2-3 quarts of Yamaha Motor Oil

GASKETS NEEDED TO INSTALL CLUTCH KIT

- ***Order gaskets from your local dealer before you install clutch kit.***
- Yamaha may call some gaskets carb gaskets. These are the correct gaskets:
- Internal Clutch Housing Gasket - part #5KM-15463-00-00

1. Remove the key from the ignition switch. Remove the seat, the small body piece between the seat and the clutch cover, and the right side foot rest. Note the length of the bolts and their position. Remove the plastic clutch cover being careful not to damage the gasket.

2. Once the clutch cover has been removed take the aluminum clutch guard off. You now should be able to see the complete primary clutch. The clutch is filled with grease and must stay that way. Do not remove any grease unless it is on the outside of the clutch, on the inner clutch sheaves where the belt rides, or on the belt. If any grease is on these areas it will cause belt slippage. Clean these areas with contact or brake cleaner that doesn't leave an oily film.

3. Remove the large nut and washer that holds the primary clutch (normally 22mm) on. Once the nut has been removed pull the clutch off of the machine. Remove the thin cover plate and the rubber o-ring. Carefully slide the inside plate up and out of the clutch. Do not clean off any grease unless necessary. This should reveal eight clutch rollers.

4. Remove one roller and press the inside bushing out of it. You can usually use a 18mm/19mm or 11/16 socket and push the bushing out by hand. If needed, set the roller on a 26mm or a 1 1/16 socket, set the smaller socket on the inner bushing and lightly tap with a hammer to remove the inner bushing. The bushing can only be pushed in one direction, make sure you are pushing it out the right way or damage can occur. Press in the new bushing supplied in the kit and place the roller back in the clutch. Repeat this step for the remaining rollers. ***NOTE: If your kit has two different weights, be sure to place them directly across from each other (or every other one). This keeps the clutch in balance***. Make sure you have all eight of the rollers in the proper place and position. Install the inside plate making sure all the rollers are in the proper location. Put the rubber o-ring and the thin cover plate back on the clutch. Place clutch out of the way and start working on the secondary clutch.

5. Remove the large nut (22mm) that holds the secondary clutch on. Remove the clutch and the belt from the machine. Using a 1 13/16" socket or a large wrench loosen the large nut holding down the secondary spring retainer. ONLY TURN NUT 1/2 TURN, DO NOT TOTALLY REMOVE NUT. The nut and retainer are under extreme pressure and can cause damage or injury if not removed properly. Using a compression tool (EPI part # CCT510) carefully compress the spring enough to take the pressure off the nut. Remove the nut slowly release the pressure off the spring. Remove the spring.

6. Place the EPI spring and spring retainer in the clutch. Using the compression tool or a press slowly and carefully compress the spring until you can thread the nut onto the shaft. Once the nut has been threaded on the shaft you can remove it from the press and torque nut to 72 ft/lbs. Set clutch aside.

7. Remove the rest of the primary clutch off of the machine. Remove the oil drain plug from the motor; if you can carefully drain it into a clean container you should be able to reuse it. After oil is drained remove the bolts that hold the aluminum housing that contains the internal clutch. This is the housing that has the shaft sticking out of it that the primary clutch sits on. Slowly remove the housing, try not to damage the gasket. If gasket is damaged you will need to install a new one. Some oil may leak from the housing when first removed, this is normal. **Note: There is a directional bearing inside the clutch housing that could fall while removing the housing**.

8. Remove the nut (27mm), some nuts are peened flat and must be straightened before they can be removed. Slide the clutch basket off; keep track of which side faces out. Place clutch on a clean work area. Push down slightly on the outside cover and remove the e-clips. Keeping track of which way they come off remove the three round metal plates one at a time. This will allow you to see and change the complete spring. Install the **EPI** springs by inserting the spring into the outer edge first. Using a spring tool or pliers pull on the spring and insert the end into the hole. Install the three metal plates and the e-clips. Slide the clutch basket back onto the machine. Install the nut and torque it to 115 ft/lbs, if it was peened over be sure to peen it back to lock it into position. If the directional bearing came out, replace the bearing on the inner Sprague clutch. The bearing is stamped indicating which side faces out. Make sure to put the bearing on making sure the stamping is facing out, if it did not come out when removing the housing it should be good. Install the gasket and install the aluminum housing. Torque the housing bolts to 7.2 ft/lbs.

9. Bolt on the clutch housing and any other brackets that were removed. Push the back half of the primary clutch back onto the shaft. Put the secondary clutch on; make sure it slides on all the way. Torque the nut to 72 ft/lbs. Thread one of the clutch cover bolts into one of the threaded holes on the side of the secondary clutch. This should spread the clutch sheaves apart. Put the belt in the clutch. Most belts have an arrow indicating direction of rotation. If your belt doesn't, be sure to install it so that you can read the part number. In either case, always run the belt the same direction as it was new.

10. Grab the primary clutch, push the inner part down with your thumbs and hold down as you pick up the clutch. While holding the inner part of the clutch from moving, slide the primary clutch onto the shaft. This should keep the rollers in place. Keep it pushed in until you can install the nut and washer. The clutch should slide all the way back easily. If the clutch doesn't seem to go on far enough to tighten the nut properly (it should slide all the way on to the edge of the splines) you might have a roller out of place or the belt might be blocking it. If needed, move the belt up and down to see if the clutch will slide on farther. If the rollers seem out of place take the clutch apart and check roller location. Install the large nut and torque it to 85 ft/lbs. Remove the bolt that was threaded into the secondary clutch.

11. Assemble the aluminum clutch guard and carefully install the plastic clutch cover and gasket to ensure a good seal. Install the vent lines. Put the foot rest, small plastic body piece, and the seat back on.

12. Install oil drain plug. Refill your engine oil to the proper level according to owners manual. You can reuse your oil if it is clean and was drained into a clean container. You must use NON Friction Modified oil (stock Yamaha). DO NOT use oils with Friction Reducing Agents, this WILL CAUSE SLIPPAGE AND DAMAGE.

13. Go out and ride your machine. If the performance doesn't seem right double check to make sure everything has been done properly.

14. **EPI** is constantly testing our products. Sometimes there is a need to contact the user with new technical information. To ensure that you are receiving this information visit our web site **EPIperformance.com** to register your clutch kit.

NOTICE: Even with this clutch kit, you should be advised that using substantial throttle when the tires are not able to spin can cause the belt to slip and ***damage may occur***. **EPI** recommends that the transmission be shifted into low range when high load, slower speed situations are encountered. **EPI** is ***not responsible*** for any damage to the drive belt or any other original equipment component.