

FULL SHIFT ROLLERS by Dalton Industries

Replacement rollers for BRP governor/ spider assembly on Can Am ATV, UTV, and Ski Doo E-Drive 2 (6 arm primary clutches).

The factory rollers in the primary drive clutch on most newer Can Am ATV's, UTV's, and on the E-Drive 2 clutch are now made from composite. Sometimes the factory rollers stick, causing the flyweight to make flat spots on one or more of the rollers. Flat spots and "sliding" is never as efficient for clutching as "rolling".



These replacement rollers are built from hardened steel and contain a new custom bushing that has excellent durability and longer life than some of the fibre type bushings in similar applications. These rollers can be used to replace older, worn metal versions, as well as the composite ones in the above applications. When the flyweights in the clutch can shift freely and roll, the result is improved clutch response, backshifting, belt life, and lasting performance.

WARNING

Read this before installing

Clutch components should only be installed by factory trained mechanics and service personnel with a complete knowledge of CVT (Variable Rate Belt Transmissions), and with the required proper tools and holding fixtures to do so. For example, if your shop does not have the proper equipment to hold a clutch and torque to the proper specification and procedure, there is good probability of damage/part failure and possible injury. Make sure to consult your dealer service manual, and also that clutches have been properly inspected for fatigue, cracks, wear. ATV clutches are assembled under spring pressure. DO NOT attempt to disassemble clutches if you are not qualified, serious personal injury could result.

This kit is a dealer installation. This kit requires a shop press or large shop vise, a service manual, and some knowledge of the cvt clutch systems.

Leave your HAMMER in the TOOL BOX ! The use of hammers and punches **will most likely** bend, burr, or damage the casting of drive clutch assembly and render non-useable ! They are not required and should not be a part of this procedure.

Installation

- 1) Remove the drive clutch outer assembly from the vehicle. All applications are different and be sure to use proper tools and procedures not only to remove, but to hold properly and re-torque later.



After removing the outer clutch assembly from the vehicle, mark the moveable sheave and governor assembly for location for re-installing later.

- 2) Carefully lift the spider/governor assembly out of the moveable sheave. Use caution to not lose the black plastic shoes on each side of every arm of the spider. There are 2 on each arm of the assembly. Turn it over so that the rollers face up.



- 3) Inspect the rollers. It is not uncommon to see flat spots on the plastic rollers, even with limited running. Sometimes all will have it, but sometimes only one or two will have the flat spots.

Note: It is important to check the condition of the flyweight lever arms in the moveable sheave. The flyweights MUST pivot freely. Repair or replace any sticking flyweights.

- 4) Remove plastic slider shoes. Use caution and only do it by hand (no hammers). It helps to have a very sharp and tiny flat blade screwdriver and use a twisting action. Be careful not to damage the plastic sliders and to keep them in order. It is best to do each arm /roller replacement one at a time....remove the old one, and replace, then move to the next one. The plastic sliders should be kept track of for original position



- 5) Throughout this procedure it is important to be aware of the mating surfaces and the aluminum casting. Caution to not put dings and marks that will not allow proper fitment on re-assembly.



On some models (like some Skidoo 1200cc 4 stroke) there is a rubber compression o-ring under the plastic slider shoe, be sure to keep track of it for re-installing later.



- 6) Using the pin tool provided, and a supporting tubular mandrel (some sockets will work, check for clearance), use the vise or press to carefully press the axle pin out of the stock roller. DO NOT use punches or hammers.

The axle pin is a press fit inside both sides of the aluminum frame casting and must be pressed carefully apart in a parallel vise. Once pin is pressed through the tubular part, the old roller easily removed.



- 7) Using the pin tool provided for a guide, slide the pin tool into the assembly of the NEW roller (along with a vespel washer on each side).



The pin tool will temporarily hold the 3 parts in place until you press the axle pin into the spider.



- 8) When you press the axle back into place for the new roller assembly, it will again require the use of the tubular mandrel to allow the pin tool to come back into the tube as the axle is pressed into the roller assembly. Go SLOW and careful !



Watch closely as the axle goes through the vespel washers, you may need to slightly move / guide the washers with a probe.

- 9) Press the axle all the way until it is flush with the inner surface.



- 10) Re-install the plastic slider shoes in the order they came off. The completed assembly should look like the picture.



- 11) Install the spider/governor assembly back into the moveable sheave. **Do not damage the plastic slider shoes.**



- 12) Install the outer clutch assembly back onto the vehicles as per service manual. With these clutches it is **CRITICAL** that you use proper torque procedures for the clutches. They are a two piece design, and most of the newer ones are 89-95 ft lbs. (check service manual for your application) Be sure to hold clutch with proper tools and take the torque procedure seriously, this is an important step in the procedure to assure that the clutch halves are locked together properly.

Thank you for choosing Dalton Industries !

