

EPI RZR XP 4 1000 CLUTCH KIT INSTALL

After putting quite a few miles on our new XP4 1000 test unit, we have very little complaints. The ride is phenomenal, the power is addictive, and the handling is as sharp as the object it's named after. The one nagging issue we have had with it is belt life- our first four belts lasted between 15 and 80 miles each. At almost \$200 each, that's an insane amount of money. We couldn't stand to drive a machine that went through belts like it went through tanks of gas, so we called up EPI to find a solution. Let us note that at normal cruising speeds, we didn't seem to have issues- but during our testing, we spend very little time at cruising speed.



STEP ONE

While the clutch build can be done with the machine on the ground, we found it easier to jack the XP4 up, remove the driver's side rear tire, and unbolt the lower shock mount to move the massive Walker shock out of the way. Once that's done, unbolt the clutch cover using an 8mm socket wrench.



STEP TWO



Once the clutch cover is removed, you will see the primary clutch (forward) and the secondary clutch (rearward). Both of these will need to be removed. To remove the primary, you will need a clutch puller tool, which is available from EPI for \$39.95. This clutch puller can be used on many different Polaris vehicles. The secondary clutch can be removed without any special tooling. **HINT:** If the primary clutch bolt is too tight to remove with a small impact wrench, use a tie down to hold it in place while you break it loose. Both bolts turn counter-clockwise to remove.



STEP THREE

Once both clutches have been removed, take them to a clean work area to begin rebuilding them.



STEP FOUR

The clutch helix resides on the back of the secondary (larger) clutch, and is held on by four T25 torx-head screws. The screws are Loctite-bound, so make sure you have the tool securely seated to avoid stripping out the heads. Remove the helix.



STEP FIVE

While the helix is off, you will need to replace the secondary clutch spring. This must be done with a spring compressor tool to avoid tearing your fingers off. EPI also sells a universal spring compressor for \$89.95. We use it on all of our clutch rebuilds, regardless of the vehicle brand.



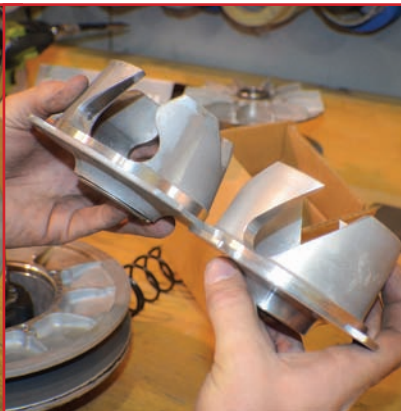
STEP SIX

Compress the inner clutch assembly, remove the snap ring that holds it in place, and release the spring compressor. Reassemble the clutch with the new EPI spring, compressing the spring with the tool until you can seat the snap ring around the shaft. Release the tool slowly, ensuring the snap ring is completely seated.



STEP SEVEN

Replace the stock helix with the new, machined EPI piece included in the kit. The helix angle determines the rate of shift and backshift that the secondary clutch exhibits, and the faster backshift will decrease the load on the belt.



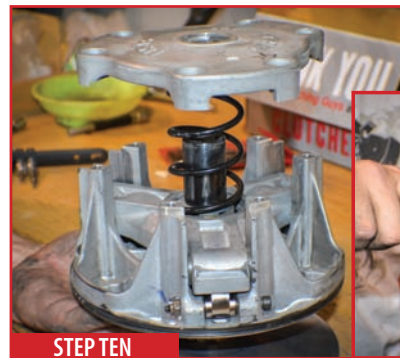
STEP EIGHT

It is now time to move on to the primary clutch. For this clutch, you don't need a compressor, but it does make life easier. Remove the six bolts that hold the top plate on the clutch evenly, so the spring pressure doesn't bind any of the bolts in the soft aluminum housing.



STEP NINE

Using a hex key and socket, remove the weights one at a time. Replace them with the new EPI weights, ensuring that they are pointed the same direction as the stock weights. We use Loctite on the bolts to ensure that they don't come loose.



STEP TEN

You will now need to install the new EPI primary spring. The EPI spring is much stiffer than the OEM spring, so we use our spring compressor tool to make the job easier. It can be done with the help of a friend, but make sure you don't cross-thread or bind any of the bolts in the housing, or it could be costly. Reassemble the clutch and check that all of the weights move freely.



STEP ELEVEN

Place the clutches back on their shafts, and ensure they are centered. Tighten down both clutch bolts to the manufacturer's specifications. We use the tie-down trick to torque the primary clutch bolt at the end of the assembly.



STEP TWELVE

Reinstall the belt, using the clutch tool supplied in the RZR's tool kit. Reinstall the clutch cover, and you're ready to ride!

THE TEST:

We put our new EPI clutch kit through its paces in the harshest environments we could find. Deep sand, huge desert whoops, and insane rocky uphill littered our testing grounds. We ran the XP4 with 3-4 passengers and a full cargo load in the bed, and didn't skimp on speed. Even with multiple 70+ mph passed through thigh-high whoops, the EPI kit didn't skip a beat. Backshift is much improved, providing immense acceleration at any speed. The car now pulls 75+ mph with four full-grown adults in the car, and all without belt failure!

CONTACT: EPI Performance, www.EPIPerformance.com or call (218) 829-6036 and tell them UTV Off-Road sent you!