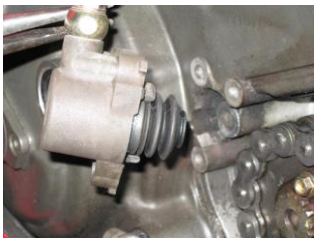
DUCATI CLUTCH REPLACEMENT

Clutch inspection is detailed in the Ducati Service Manual or other service manuals such as LT Snyder's excellent maintenance manuals. Once the determination is made to replace the clutch, the Clutch replacement kit you received from ducatitoolrental.com, will enable a quick and easy clutch component replacement (hub, drum and plates). In addition to the contents of the kit, a ½" drive breaker bar or ratchet will be required along with 4mm and 5mm Allen wrenches for removing fasteners. Clutch replacement is straightforward and easy to accomplish.

Secure the bike: a side-stand, paddock stand, or lift is great ways to secure the bike. If using a ½" breaker bar or ratchet, a ***generous*** amount of force will be used when loosening the 32mm nut holding the clutch basket in place. Place the bike in gear if using the side stand; to help prevent the bike from rolling while accomplishing work.

Inspect the slave cylinder.



Remove and inspect the condition of the slave cylinder and the associated seal.

Remove the clutch pushrod and inspect for wear and the integrity of the O-rings. If it is stuck in the pressure, removal will have to wait until the pressure plate is removed. Here are two pushrods. The one on top has been worn away by a failed bearing and caused the clutch action to become difficult. A new one is in the lower part of the picture.

Remove the cover:

Remove the 5mm Allen bolts securing the cover to the case. After the cover is removed, inspect the gasket for wear and defects. The gasket pictured was installed incorrectly was subsequently worn away by the rotating clutch,

Remove the 4mm Allen bolts securing the pressure plate; place the springs and hardware in a safe place for reinstallation.

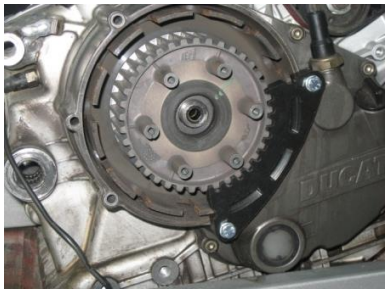
Inspect the friction plate tabs: The tabs on the friction plate knock against the drum and cause the distinctive "rattle" of a Ducati. The maximum allowable gap between the tabs and the basket is .5mm (.020")

Carefully remove the pressure plate: the clutch pushrod has a tendency to come out with the pressure plate. Try to leave it in place if possible. Inspect the pressure plate for cracks/damage/wear. Inspect the springs and retaining bolts. Replace if necessary.

Remove the clutch plates:

Using the picks provided, remove the friction plates and the spacer plates. Keep the plates in order in case the plates are used on reassembly.

Inspect the condition of the tangs on the clutch basket. If the ridges are very noticeable, these will contribute to premature wear of new clutch plates: the bigger the gap between plates and basket means more wear on the clutch plate tangs.



Remove the drum.
Install the clutch holding tool that arrived with your kit. Bolt it to the engine as shown, this will offer maximum holding power. Snug the bolts tight.

CAUTION: The nut is very tight and will take much effort to loosen with a breaker bar. Personal injury or equipment damage is possible

Use the 32mm socket on a ratchet, breaker bar, or impact driver to loosen the nut holding the basket on the shaft. This nut is tightentd to 136 ft lbs. It will take some juice to muscle this nut loose. Apply force wisely to avoid injury and equipment damage. Once the nut is removed, remove the clutch holding tool so the basket can be slid off the end of the shaft.

Remove the basket:
Reinstall the clutch holding tool so the indents in the tool align with the tangs in the basket. Tighten the tool retaining bolts snug. Remove the 13mm bolts holding the basket in place. If an excessive amount of lock-tite appears to be on the threads of the bolts, chase the threaded holes with a tap for a cleaner reinstallation.

Inspect:
Plates- Faulty clutch operation is not always the result of worn plates. If you found something during your disassembly and inspection such as a worn pushrod/bearing, it could be the friction plates are acceptable for further service. Measure the plates with a caliper and if they measure 32mm +- 2mm, they can be reinstalled if all the plates are in good condition.
Basket- Inspect the basket for grooved caused from the clutch plates impacting the basket. If the grooves are severe, the basket should be replaced to get the maximum service out of new clutch plates.
Drum- Inspect for wear on the teeth caused by the clutch driven plates knocking against the drum. Replace the drum if the teeth are grooved more than .5mm (.020”). Inspect for integrity of the pressure plate mounts. Inspect for fatigue cracks. Replace with a new drum if there is excessive wear or defects.

Clean –Everything prior to reassembly. Removing old friction material and grease helps ensure smooth operation of new components. Brake cleaner works well for this task.

Reassemble:
Using new or good condition components, reinstall the clutch basket. Align the tangs on the basket with the indents in the clutch holding tool and bolt the tool securely to the engine case. Use a medium strength thread-locking compound (lock-tite) on the bolts securing the basket. Torque to 24 ft lbs.

Clutch drum. The clutch drum is installed next. When installing the shim behind the drum nut, verify the pin and the slot of the drum and shim align. Place a small dab of grease behind the nut to prevent seizing of the nut to the drum. Use a torque wrench to torque the nut to 136 ft lbs.

Clutch plates – Install the clutch plates in the same order the old plates were removed: 2 steel (non friction) plates closest to the engine casing. When installing the plates, alternate steel and friction plates during reassembly. The curved plate (if any) should be reinstalled in the space it was removed form.
Pressure plate – Be sure to apply some quality grease to the push-rod needle bearings within the drum. Install the pushrod. Install the pressure plate over the clutch pack. Verify the pushrod is fully seated in the bearing in the pressure plate and the pressure plate is firmly against the clutch pack.
Reinstall the gasket taking care to have it remain in place while the cover is being reinstalled.