

BELT DRIVES LTD.

BDL CLUTCH HUB REMOVAL AND INSTALLATION INSTRUCTIONS

THE USE OF **RED THREAD LOCKER** IS CRITICAL DURING INSTALLATION OF CLUTCH HUB AND BASKET ASSEMBLIES ONTO SPLINED TRANSMISSION MAINSHAFTS

Once you have removed the Pressure Plate , Clutch Pack, & Hub Nut, Then you can remove the Hub and Basket assembly, You will need to perform the following. You Must use a press of some sort to perform these steps. Completely read all the instructions first.

Always clean mainshaft threads and mainshaft splines to remove old thread locker material.

Reference Note* Clutch hub is the smaller center component that rides on the mainshaft. The clutch Basket is the larger component that the belt or chain rides on. Hub and basket are connected by a hub bearing, Hub bearing is pressed into basket and then hub is pressed into hub bearing. Ring gears are replaceable, They heated and installed then allowed to cool for a "heat and shrink" fit.

HUB REMOVAL FROM BASKET

1. Support the basket from the inside around the outside of clutch hub using a 4.500 I.D. "Inside Diameter" by 4.00 tall, round piece of material.
2. Remove the clutch hub retaining ring from the retaining ring groove in the Hub tail shaft located on backside of hub.
3. Using another solid round 1.400 O.D. "Outer Diameter" by 3.00 tall material or object, place it on top of the tail shaft of the hub and press the hub out of the hub bearing and basket

***Note:** Failure to support the inside of the clutch basket can / will damage the basket. [Do not support the clutch basket by the ring gear.](#)

HUB INSTALLATION TO BASKET & BEARING

1. Place clutch hub face down on a pedestal about 4" tall. Height can vary due to depth / width of basket,
2. Place basket with installed hub bearing onto of the tail shaft of the clutch hub.
3. Using a piece of round material or object with an I.D. of 1.500 and an O.D. of 1.75 place on the **INNER RACE ONLY** of the hub bearing, Now press down until basket assembly makes contact with the bearing stop of the clutch hub, And retaining ring groove is exposed enough to install retraining ring.

***Note:** Do not over press, as this can / will cause bearing damage.

4. Install retaining ring in groove in clutch hub tail shaft.
5. Next, Hold onto clutch hub with one hand, Spin basket with the other hand to verify that hub bearing is ok, No jumping, rumbling, notching, ETC.

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HUB & BASKET INSTALLATION ONTO TO SPLINED 1990 - UP MAINSHAFTS

1. For final assembly, Verify that all foreign material is removed from transmission mainshaft splines and threads, And spline in the clutch hub, As this will affect fitment and thread locker performance.
2. Apply a generous amount **Red Thread locker** #271 into the first 1" of the splines on the transmission mainshaft and into the first 1" of splines "backside" of the clutch hub. Or you may apply the **Red Thread Locker** to the first 1" of the splined mainshaft then slide the hub and basket onto the splined mainshaft, This will apply the **Red Thread Locker** to the internal splines of the clutch hub, Remove hub and basket, Clean the last inch of the mainshaft spline of the excess thread locker, Reapply **Red Thread Locker** To the first 1" of splined mainshaft, Now install hub and basket for final assembly, ***NOTE** Over application may cause the thread locker to affect the operation of the hub bearing.
*** Note:** The excess thread locker will move to the uncoated areas of the mainshaft and hub splines.
3. Apply **Red Thread Locker** #271 to the threads of the mainshaft.
4. Install and Torque clutch hub nut to spec. 70-80 FT. LBS. ***Note** We suggest tools CLT-100 & RGLT-100 to aid you.
5. **Do not start motorcycle for 24 hours,** As this is the Manufacturers full cure time of the **Red Thread Locker**.

HUB AND BASKET INSTALLATION ONTO TAPERED 1936 - 1989 MAINSHAFTS

- 1, Verify mainshaft taper and keyway are in good condition.
2. Always replace woodruff key with a new one, Also verify that the woodruff key is the correct one for your year mainshaft, There are different styles and shapes for different years.
3. Apply a drop or two of superglue to the mainshaft keyway to securely hold woodruff key in place while installing clutch hub and / or hub and basket assembly.
- 4, Install clutch hub or hub and basket assembly onto mainshaft, Verify hub has seated to taper of mainshaft, and key is still in position.
- 5, Apply **Red Thread locker** to threads of mainshaft, Torque nut to 50-60 FT.LBS. for tapered mainshafts

***Special Note:** Thread lockers have a shelf life of up to 24 months, Once used the cap must be replaced immediately, The degradation starts as soon as you open the bottle, The deterioration directly effects the strength and performance of the thread locker.

FAILURE TO FOLLOW THESE STEPS CAN / WILL LEAD TO PREMATURE COMPONENT FAILURE AND VOID ANY PRODUCT WARRANTIES

Belt Drives. Ltd.

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