



Complete BTL Clutch Kit Yamaha YZ250F / WR250F

Thank you for purchasing Hinson Clutch Components. Please enjoy the high level of factory performance we have included in this package. Looking through these instructions will ensure your machine is on the way to its highest level of performance.

HB641-1901



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1. Remove basket

- Drain the engine oil
- Remove the clutch cover and gasket, springs, pressure plate, clutch plates, inner hub, thrust washer and clutch basket. Only the parts off the clutch basket will be reused with your new Hinson setup



Figure 1

2. Remove gear and starter clutch

- Remove the starter gear.
- Remove the stock torx bolts, these have Loctite so you will have to heat basket to break loose (Figure 1).
- Remove the starter clutch and retainer ring.
- Remove OEM retainer plate, cushions, and primary gear.
- Press the center gear out of the basket (Figure 2)

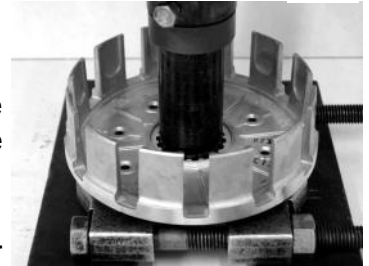


Figure 2

3. Install center gear

- Place the center gear in the freezer for at least 15 minutes
- Place the Hinson basket on a preheated electric range set and heat to 400° or put the basket in a preheated oven at 400° for 10 minutes
- Remove the gear from the freezer and basket from the range and immediately drop gear into basket and apply weight downward to the gear to keep it in the basket, then allow the basket to cool down completely



Figure 3

4. Install primary drive gear & starter clutch

- Install the primary drive gear and stock cushions onto your new Hinson Basket with the flat surface facing down (Figure 3), use a lubricant such as WD-40 if necessary
- Clean the threads in the holes of the basket and the threads on your stock torx bolts with contact cleaner or another suitable cleaner.



Figure 4



Figure 5

4. Install primary drive gear & starter clutch

- Install your stock backing plate letter side up (figure 4)
- Install your starter clutch assembly being sure to install the starter clutch in the right direction so it is captured in the retaining ring (Figure 5 & 6)
- Apply Red Loctite* generously to the cleaned torx bolts and to the threads on the basket (Figure 7)
- Install torx and tighten them to your manufacturers specifications
- Install your starter gear into the starter clutch rotating counter clockwise until it drops down and engages (Figure 8)



Figure 6



Figure 7

5. Install basket and BTL into bike

- Install the basket and the provided Hinson thinner thrust washer
- Install the Hinson BTL inner hub, Install the provided main shaft nut using *Loctite 272 torquing to your manufacturers specification being sure to ping the nut in the area of the cutout on the main shaft (Figure 9)
- Install the top hat
- Install the Hinson clutch plates, and the Hinson BTL pressure plate, and bolts being sure to align the clamp hub holes with the pressure plate, run the bolts up in a star pattern to prevent damaging the clamp hub and then torque to 72in/lbs
- Install the Hinson clutch cover being sure to inspect the gasket first. And replace if damaged
- Refill with oil
- Adjust the free play to 1/8 to 1/4 of play
- Refer to the provided BTL manual for any tuning questions



Figure 8



Figure 9

LOCTITE * It is crucial that you use RED Loctite #272. To insure proper bonding of the surfaces you need to clean the threads thoroughly with a contact cleaner, acetone, or another cleaning/degreasing solution. To make the bond even stronger you should use a Loctite primer. It is important that you use fresh Loctite since it has a shelf life. To ensure a permanent hold you need to put Loctite into the hole and also onto the screw. Keep in mind that you cannot use too much, you want complete coverage with the Loctite.

Clutch tips

- Use Hinson clutch plates in your clutch for the best performance.
- Soak your clutch plates before you install them.
- We recommend using a petroleum based engine oil
- Change the oil after each time you ride.
- Always maintain 1/8" to 1/4" of free play at the lever and perch.

For other parts available for this model visit
www.HinsonRacing.com

Warranty information

All merchandise manufactured by Hinson Clutch Components is guaranteed against defects in material and workmanship for a period of six months from the original date of purchase. Use of Kevlar and carbon fiber clutch plates will cause excessive wear and will void your warranty. Hinson Clutch Components will not warranty any product that has been modified, or where the product became defective due to improper installation, improper use, or any other misuse of the product. Hinson Clutch Components shall not be liable for any other damages caused by any defects in the product, whether incidental, consequential or otherwise. You must return the warranty card to validate your warranty. If your product is defective we will, at our discretion, repair or replace the product after it is returned to Hinson Clutch Components for a warranty inspection. Any request for warranty assistance will require your original receipt or acceptable proof of purchase. Hinson Clutch Components liability is limited to the cost of repair or replacement of the product. All warranty items will be viewed and acted upon at the discretion of Hinson Clutch Components

Important! Warranty registration

Products must be registered in order to be eligible for warranty. Please log onto www.hinsonracing.com to activate your warranty registration. You will need to make note of your serial number, the small 8 digit number 180 degrees from Hinson Clutch Components on your part, as you cannot register your product without it.

THANK YOU FOR BUYING A HINSON CLUTCH COMPONENT