



**Billetproof® Clutch Basket**  
**Yamaha YZ450F, YZ450FX, WR450F, YFZ450R**

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.

**H216**



**1630 W. 11th St. Unit E, Upland, CA 91786**  
**p 909.946.2942 | f 909.985.2301 | [www.hinsonracing.com](http://www.hinsonracing.com)**

# 1. Remove basket

- Remove the pressure plate and the inner hub
- Remove the basket from the bike



Figure 1

# 2. Remove gear

- Grind or center punch and drill the heads of the rivets off of the back of the basket to remove the stock retainer plate (see figure 1 and 2)
- Remove the primary drive gear and the stock cushions
- The stock basket and retainer plate will not be reused
- Press the kickstarter gear out of the basket (see figure 3)



Figure 2

NOTE if your kick starter gear has a washer between it and the basket. You will re use it.

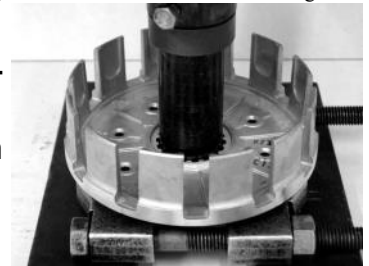


Figure 3

# 3. Install kickstarter gear

- Place the kickstarter gear in the freezer for at least 15 minutes
- Place the Hinson basket (without screws and retainer plate) on a preheated electric range set on high for 3-4 minutes (see figure 4) 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 4



Figure 5

## 4. Install primary drive gear

- Install the primary drive gear and the cushions onto your new Hinson Basket with the recessed side up (Figure 5), use a lubricant such as WD-40 if necessary
- Clean the threads in the holes of the basket and the threads on the screws with contact cleaner or another suitable cleaner.
- Apply Red Loctite\* generously to the cleaned screws and to the threads on the basket (Figure 6 and 7)
- Install the new retainer plate with the new 10X24-5/8" screws and tighten them to 40 in/lbs (Figure 8)
- Using a hammer and punch, peen the screws where they come through the inside of the basket

## 5. Re-install basket into bike

- Re-install the basket and the thrust washer
- Re-install the inner hub and tighten the main shaft nut manufacturers specifications (Figure 9)
- Re-install the clutch plates, and the pressure plate



Figure 6



Figure 7



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 Loc-

# 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 freeplay at the lever and perch.

# Other parts available for this model

- H099 2002-2009 Pressure Plate
- H212 2007-2009 Pressure Plate
- H198 Inner Hub
- FP196-9 2004-2009 Fiber Clutch Plates
- SP198-8 2007-2009 Steel Clutch Plates
- FP196-8 2007-2009 Fiber Clutch Plate
- SP073-7 2007-2009 Steel Clutch Plates
- C196 Hinson Clutch cover
- FSC196-9 Complete Clutch Pack
- FSC213-8 Complete Clutch Pack
- BTL316 Slipper clutch
- HC316 Complete Clutch Kit
- HB316 Complete Clutch Kit with Slipper Clutch
- H214 9 Plate Update Kit with Fibers,, Steels Springs, and Pressure Plate

# 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](http://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