

**KING KONG CLUTCH INSTALLATION INSTRUCTIONS**



**PREMIUM DRIVETRAIN INNOVATIONS  
FOR AMERICAN MOTORCYCLES**



# OVERVIEW

## BAKER KING KONG CLUTCH

V.05\_091008

### FEATURES:

- 1 Piece steel clutch basket design
- 66 tooth ring gear configuration, 23% thicker than stock
- 20 massive 7" diameter single sided friction plates
- Red hard anodized carrier and pressure plate
- Hard anodized inner hub for wear resistance
- Positive pressure plate alignment accomplished with teflon coated perma glide bushings
- Coil spring design with 3 different springs included

### APPLICATION AND REQUIRED HARDWARE:

- 1990-2006 Softail/Dyna Applications (Except 2006 Dyna Motorcycles) (94-06 Softails require James™ Gasket P/N: 60539-94- thicker than stock)
- 1994 -2006 FLH Models. (James™ Gasket (P/N: 34901-94) is required- thicker than stock.

### SKILL LEVEL:

As with most things in life there is no substitute for skill and experience. It is highly recommended by BAKER Drivetrain that when performing this task or any task related to the Drivetrain components on your motorcycle, that you refer to your Factory Service Manual for your specific model of bike.

### SPECIAL TOOLS:

- 1 3/16" Socket (clutch nut removal)
- 1 1/2" Socket (compensating sprocket nut)
- Torque wrench
- 3/16" T-Handle allen
- Die grinder or cut-off wheel for 94-06 Big Twin (Except 06 Dyna Motorcycles)
- ATF (Dexron/Mercon) fluid

# **BAKER KING KONG CLUTCH INSTALLATION**

V.5

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# INCLUDED PARTS

## PARTS PROVIDED WITH THE BAKER KING KONG CLUTCH

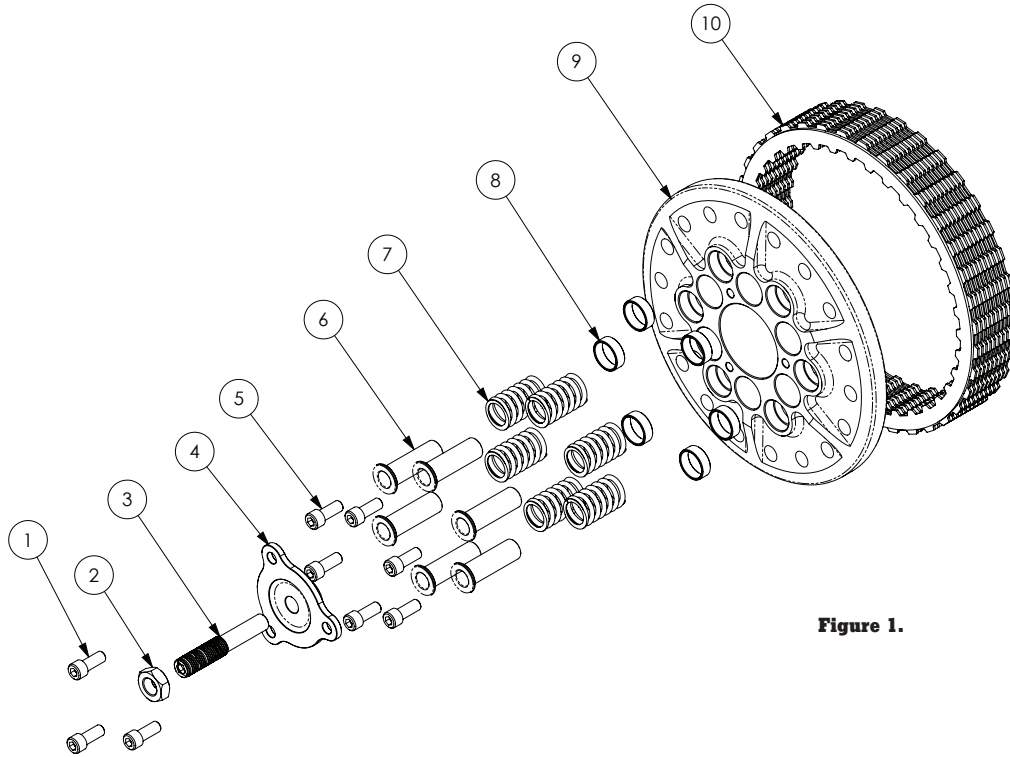


Figure 1.

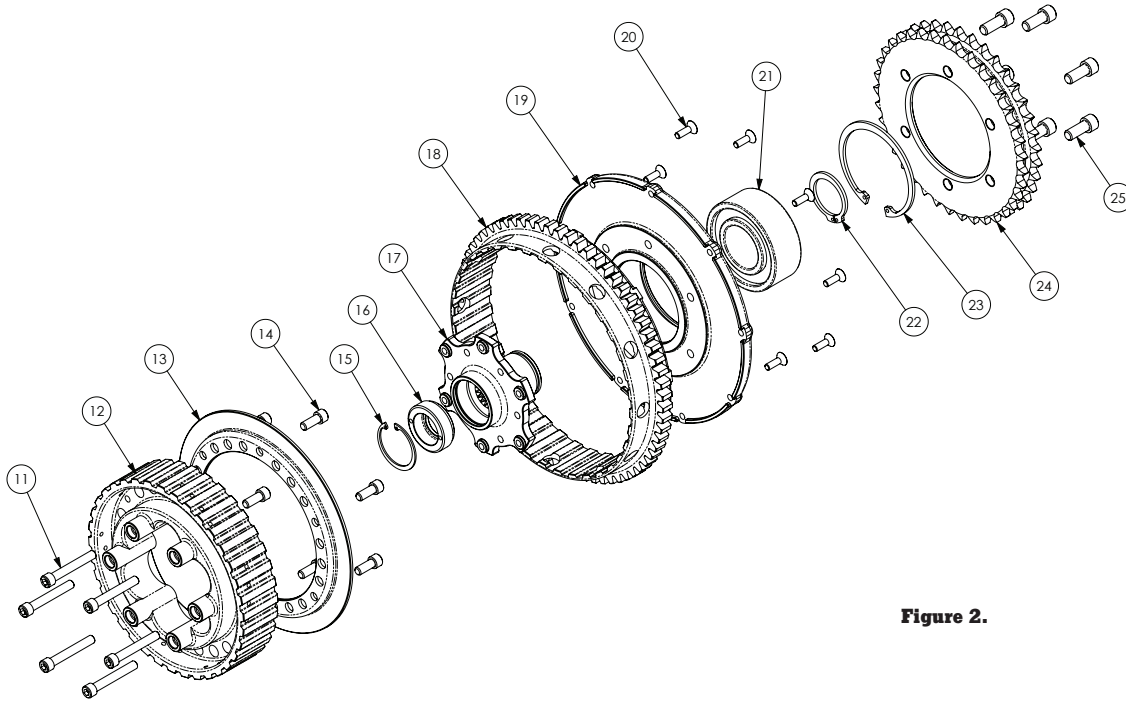
**THE FOLLOWING PARTS ARE INCLUDED AS SHOWN IN FIGURE 1.**

**FIGURE 1.**

	<b>P/N:</b>	<b>QTY:</b>	<b>Description:</b>
<b>1</b>	<b>23202</b>	<b>3</b>	<b>1/4-20 X 5/8" SHCS</b>
<b>2</b>	<b>36258</b>	<b>1</b>	<b>7/16-20 JAM NUT- GRADE 8</b>
<b>3</b>	<b>9P235-56</b>	<b>1</b>	<b>ADJUSTER SCREW</b>
<b>4</b>	<b>20P107-KK</b>	<b>1</b>	<b>KEY HOLE FITTING</b>
<b>5</b>	<b>004-242</b>	<b>6</b>	<b>1/4-28 X 5/8" SHCS</b>
<b>6</b>	<b>20P111-KK</b>	<b>6</b>	<b>SPRING CUP, POLISHED</b>
<b>7</b>	<b>LC-095J-05M</b>	<b>6</b>	<b>SPRING, YELLOW, 240 lbs.</b>
<b>7</b>	<b>LC-105J-05M</b>	<b>6</b>	<b>SPRING, RED, 360 lbs.</b>
<b>7</b>	<b>LC-112J-05M</b>	<b>6</b>	<b>SPRING, BLUE, 480 lbs.</b>
<b>8</b>	<b>PAPZ1004P10</b>	<b>6</b>	<b>PERMA GLIDE BUSHING</b>
<b>9</b>	<b>20P105-KK</b>	<b>1</b>	<b>PRESSURE PLATE</b>
<b>10</b>	<b>156702-160</b>	<b>10</b>	<b>INTERNAL SPLINED FRICTION PLATE</b>
<b>10</b>	<b>156703-160</b>	<b>10</b>	<b>EXTERNAL SPLINED FRICTION PLATE</b>

# INCLUDED PARTS

**PARTS PROVIDED WITH THE BAKER KING KONG CLUTCH CONTINUED...**



**Figure 2.**

**THE FOLLOWING PARTS ARE INCLUDED AS SHOWN IN FIGURE 2.**

**FIGURE 2.**

	<b>P/N:</b>	<b>QTY:</b>	<b>Description:</b>
11	002-359	6	1/4-20 X 1 3/4" SHCS
12	20P101-KK	1	INNER HUB
13	20P104-KK	1	FLANGE / BACKING PLATE
14	23202	6	1/4-20 X 5/8" SHCS
15	143RRRI	1	1 7/16" INTERNAL SNAP RING
16	732121	1	1 1/2" LEFT HAND THREADED RETAINER
17	20P103-KK	1	FLANGED HUB
18	20P100-KK	1	BASKET, CLUTCH
19	20P102-KK	1	CARRIER, CLUTCH
20	10FS0KFC	9	10-32 X 1/2" FSHCS
21	3207	1	BEARING, INA DOUBLE ROW, CARRIER
22	1460-137PP	1	SNAP RING, EXTERNAL, FLANGED HUB
23	35258	1	SNAP RING, INTERNAL 72MM, CARRIER
24	D4A-35	*	SPROCKET, 35 TOOTH
24	D4A-36	*	SPROCKET, 36 TOOTH
24	D4A-37	*	SPROCKET, 37 TOOTH
24	D4A-38	*	SPROCKET, 38 TOOTH
25	23253	6	5/16-18 X 3/4" SHCS (SPROCKET)

\* = CUSTOMERS PREFERENCE

# BAKER KING KONG CLUTCH INSTALLATION

## PREPARATION:

## DISSASSEMBLY:

1. **FOR YOUR SAFETY, DISCONNECT BOTH BATTERY POSTS (FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY).**
2. Remove primary drain plug located at the bottom of your primary, drain fluid and dispose of at your local recycler.
3. On some models it is necessary to remove foot pegs / floor boards in order to remove the outer primary.
4. Remove the outer primary cover.
5. Refer to your Factory Service Manual to remove your stock clutch assembly and related primary components using the proper safety precautions and tools.



**1994-2006 (EXCEPT 2006 DYNA MOTORCYLCES): REQUIRES THE USE OF THE BAKER 9 TOOTH STARTER PINION (P/N SP1000) WHICH CONVERTS YOUR 102 TOOTH CLUTCH CONFIGURATION INTO A 66 TOOTH CONFIGURATION TO WORK WITH OUR CLUTCH BASKET.**

## PINION REPLACEMENT:

1. With Clutch assembly and primary components out of the way, remove the factory 10 tooth starter pinion (H-D P/N 31342-94). Replace the factory pinion with BAKER'S 9 Tooth Starter Pinion (P/N SP1000) refer to the Factory Service Manual for proper torque specifications while reusing the Factory Hardware. (Fig 3)



**BAKER DRIVETRAIN CLUTCH ASSEMBLIES ALL COME PREASSEMBLED AND READY FOR INSTALLATION. FRICTION PLATES ARE PRESOAKED AT OUR FACILITY AND READY TO RUN.**

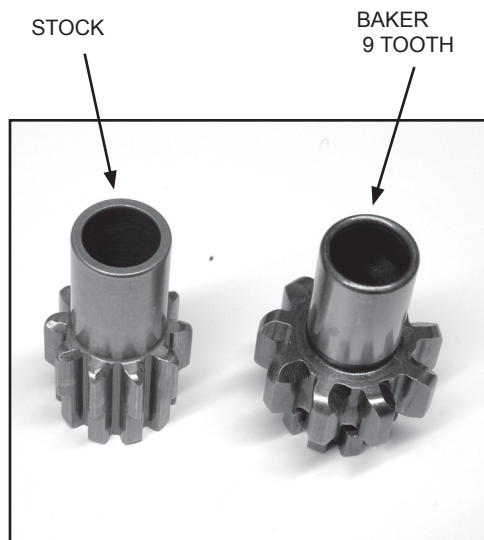


Figure 3.

# BAKER KING KONG CLUTCH INSTALLATION

## INSTALLATION OF YOUR BAKER KING KONG CLUTCH:

1. Install your new clutch assembly, primary chain, and motor sprocket components following the Factory Service Manual. (figure 1.)
2. Install the factory clutch nut (H-D P/N: 37496-90) with the machined relief facing toward the clutch using Red thread lock.
3. Install compensating sprocket nut using “Red” Thread Lock.
4. Torque clutch and compensating nut to Factory specifications found in your Factory Service Manual.
5. Adjust primary chain following steps listed in your Factory Service Manual.
6. Install clutch adjuster Key Hole Fitting with bolts provided in kit, using “blue” thread lock. Torque bolts to 110 in. lbs. (figure 3.)

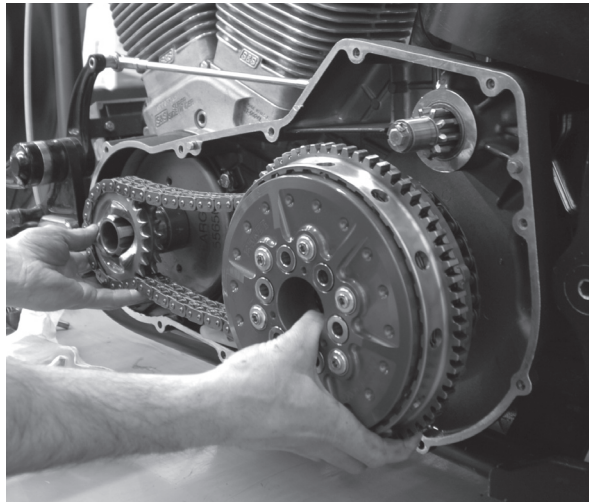


Figure 1.

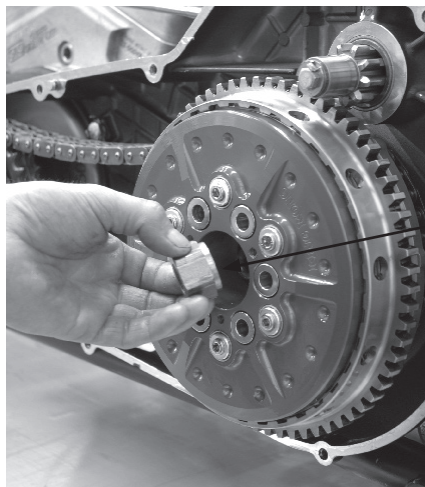


Figure 2.

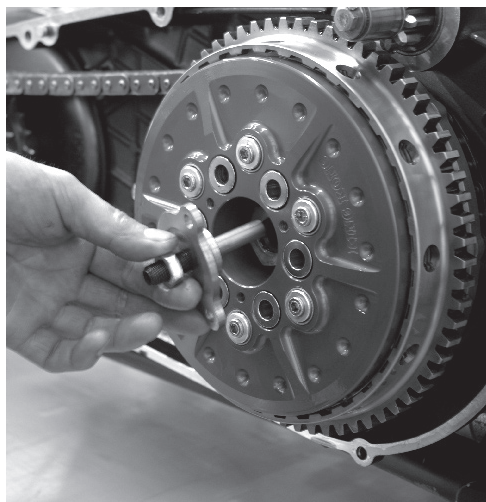


Figure 3.



# BAKER KING KONG CLUTCH INSTALLATION

7. Adjust the clutch following steps listed in your Factory Service Manual.

**FOR 1994-2006 SOFTAIL/DYNA (EXCEPT 2006 DYNA MOTORCYCLES)**  
**MODIFICATION TO THE INNER PRIMARY IS NECESSARY FOR PROPER FITMENT.**

7a. Using a die grinder or cut off wheel remove the cast webbing from the inside of the inner primary. Remove webs entirely until smooth with the inside face. (Figures 4 and 5) A total of 8 ribs will be cut.

**7B. CHECK YOUR OUTER PRIMARY FITMENT TO MAKE SURE YOU HAVE PROPER CLEARANCE WITHOUT GASKET INSTALLED. EXTRA GRINDING MIGHT BE REQUIRED. CLUTCH SHOULD SPIN FREELY, WITH FULL CLUTCH ACTUATION. FAILURE TO CHECK MIGHT RESULT IN DAMAGE TO THE CLUTCH, INNER AND OUTER PRIMARY, RING GEAR AND OR PERSONAL INJURY.**

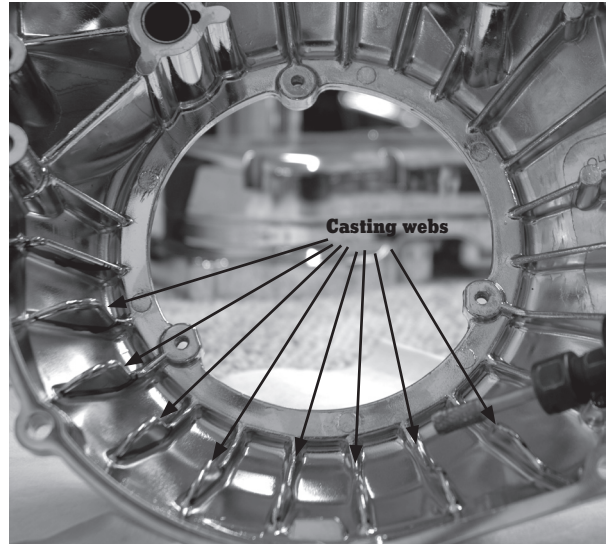
8. Install outer primary with new gasket following the Factory Service Manual. FLH models require James™ Gasket P/N: 34901-94. Softail/Dyna models 94-06 (except 06 Dyna), require James™ Gasket P/N: 60539-94.

9. Add ATF (Automatic Transmission Fluid Dexron / Mercon) available at your local auto parts store referring to your Factory Service Manual for proper fluid level specifications.

**DUE THE KING KONG CLUTCH BEING A HIGH PERFORMANCE CLUTCH ASSEMBLY WE RECOMMEND ONLY THE USE OF ATF (AUTOMATIC TRANSMISSION FLUID). ATF HAS FRICTION MODIFIERS AND BETTER LUBRICATION CHARACTERISTICS THAN FOUND IN ORDINARY PRIMARY FLUID. THE USE OF ORDINARY PRIMARY FLUID COULD CAUSE THE CLUTCH TO SLIP AND DRAG, RESULTING IN CLUTCH FAILURE AND VOIDING YOUR WARRANTY.**

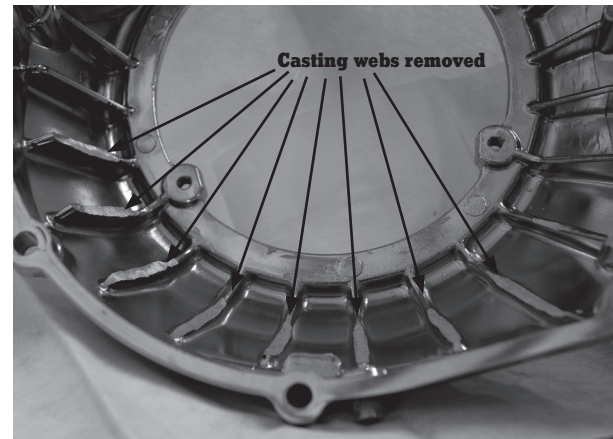
10. Install derby cover (clutch inspection cover) with new gasket. Following your Factory Service Manual specifications.

11. If floor boards or pegs were removed to install your clutch reinstall them as per Factory Service Manual.



Before removal of casting webs.

Figure 4.



After removal of 8 casting webs.

Figure 5.

**TO ENSURE A LONG SERVICE LIFE FOR YOUR NEW BAKER KING KONG CLUTCH RE-ADJUST THE CLUTCH PER MANUAL AFTER THE INITIAL "BREAK IN" PERIOD. THIS CAN VARY DEPENDING ON YOUR RIDING STYLE; BETWEEN 500-3000 MILES.**



# BAKER KING KONG CLUTCH INSTALLATION

Your BAKER KING KONG CLUTCH is shipped with our red medium springs installed (rated at 60 lbs each). Depending on your riding style you can alter or tailor your spring load, following the steps listed here:

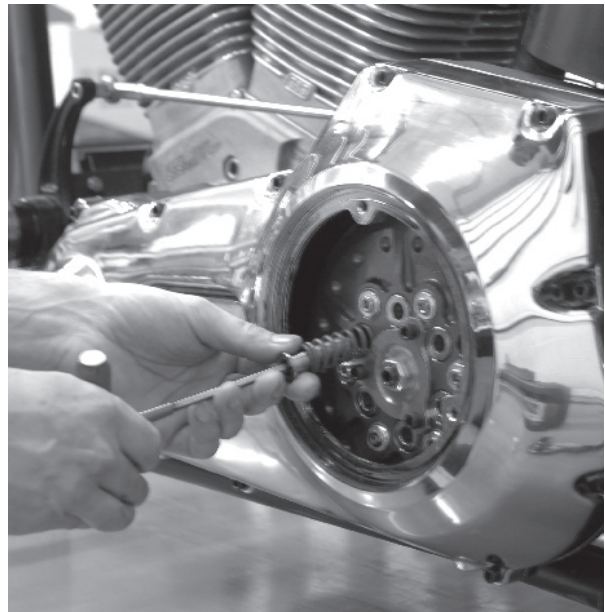


**NOTE: WHEN YOU CHANGE SPRING PRESSURE YOUR LEVER EFFORT WILL ALSO CHANGE.**

## **INSTALLATION OF COIL SPRINGS:**

Refer to the exploded view #1 and Figure 6 as a guide.

1. Make sure the motorcycle is supported correctly on a lift or kickstand.
2. Put the motorcycle in 1st gear (this will help when removing the coil springs).
3. Remove the derby cover (clutch inspection cover).
4. Loosen the clutch adjustment.
5. Using a 3/16" T-handle allen remove 4 of the 6 springs. (leaving 2 springs, 180 degrees apart). This is to hold the clutch pressure plate and clutch pack together.
6. Reference the spring chart on page 9; if mixing the springs mix equally, every other one; install 4 of the desired springs (some pressure is required on the T-handle when installing the retaining bolts) using "blue" thread lock. Torque to 110 in. lbs. in a star shaped pattern.
7. Remove the 2 springs that you left in (Step 5). Replace them with the remainder of the desired springs using "blue" thread lock torque to 110 in. lbs.
8. Readjust the clutch following your Factory Service Manual.
9. Install derby cover (clutch inspection cover) per Factory Service Manual.



**Figure 6.**

# BAKER KING KONG CLUTCH INSTALLATION

## KING KONG CLUTCH SPRING CHART

There are 3 different springs available for your clutch. We recommend the following:

- Yellow (P/N LC-095J-05M) for stock applications
- Red (P/N LC-105J-05M) for modified motors up to 150 h.p.
- Blue (P/N LC-112J-05M) recommended for race applications only. Motors over 150 h.p.

**NOTE: A motorcycle being shifted with the throttle wide open will require more spring pressure than shifting with the throttle rolled closed.**

Color	# Of Springs	Yellow Spring	Yellow/Red	Red Spring	Red/Blue	Blue Spring
<b>LBS. Rating</b>	6	240 lbs		360 lbs		480 lbs
<b>Mix Rating</b>	3 of each		300 lbs		420 lbs	

**BAKER Drivetrain does not recommend altering the spring pressures other than specified above. Doing so could result in clutch damage, failure, void of warranty, loss of control and or personal injury.**

# TERMS

## **SPECIAL ORDERS**

A minimum \$500 deposit is required with all special orders. Special orders include unique case finishes, unique side door requests (i.e.; wrinkle black door or no logo).

## **ALL OTHER ORDERS**

Orders can be pre-paid using VISA, Mastercard or American Express.

Prices shown are F.O.B. Haslett, MI. BAKER™ provides free UPS ground shipping on all retail orders for complete transmissions or transmission kit. UPS air shipment is available upon request. Customer is responsible for air shipment premiums.

## **LIMITED WARRANTY**

BAKER™ Inc. transmission assemblies, transmission kits, primaries, belt drives and wide tire kits are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of 5 years from the date of purchase or up to 50,000 miles. BAKER clutches are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of 2 years from the date of purchase or up to 24,000 miles - whichever is sooner.

If the product is found by BAKER™ to be defective, such products will, at the option of BAKER™, be replaced or repaired at cost to BAKER™.

In the event warranty service is required, the original purchaser must call or write BAKER™ immediately with the problem.

If it is deemed necessary for BAKER™ to make an evaluation to determine whether the transmission assembly or transmission kit is defective, the entire transmission assembly, whether originally purchased as an assembly or kit, must be properly packaged and returned prepaid to BAKER™ with a copy of the original invoice of purchase.

If after an evaluation has been made by BAKER™ and a defect in materials and/or workmanship is found, BAKER™ will, at BAKER's option, repair or replace the defective part of the assembly.

Warranty card must be returned within 45 days of purchase to be valid.

## **ADDITIONAL WARRANTY PROVISIONS**

This limited warranty does not cover labor or other costs or expenses incidental to the repair and or replacement of BAKER™ products. This warranty does not apply if one or more of the following situations is judged by BAKER™ to be relevant: improper installation, accident, modification (including but not limited to use of unauthorized parts), racing, high performance application, mishandling, misapplication, neglect (including but not limited to improper maintenance), or improper repair.

BAKER™ shall not be liable for any consequential or incidental damages arising out of or in connection with a BAKER™ transmission assembly, transmission kit, swingarm, fender, component or part. Consequential damages shall include without limitation, loss of use, income or profit, or losses sustained as the result of injury (including death) to any person or loss of or damage to property.

BAKER™ transmissions, transmission kits, clutches, primaries, belt drives and Wide Tire Kits are designed exclusively for use in Harley-Davidson® motorcycles. BAKER™ shall have no warranty or liability obligation if a BAKER™ part is used in any other application.

If it is determined that a BAKER™ transmission assembly has been disassembled during the warranty period for any reason, this limited warranty will no longer apply.

## **DISCLAIMER**

The words Harley, and H-D are registered trademarks and are for reference only. Use of H-D model designations and part numbers are for reference only. BAKER Drivetrain has no association with, and makes no claim against, these words, trademarks, or companies.

It is the sole responsibility of the user to determine the suitability of this product for his or her use, and the user shall assume all legal, personal injury risk and liability and all other as well as all other obligations, duties and risks associated therewith.

### **CUSTOMER SUPPORT**

For any installation or service questions, please contact our BAKER technical department toll free: 1-877-640-2004.