# BAKER KLASSIC KICKER GEAR KIT

# INSTALLATION INSTRUCTIONS



# **FEATURES**

We all know the struggle of that die-hard guy in the crowd determined to kick over his stubborn motor. This beautiful embodiment of man versus machine is pornographic in nature, because starting that bike in a sea of onlookers is truly the money shot. With H-D<sup>TM</sup> 4-speed replacement parts becoming increasingly difficult to find and Chinese knock-offs being less than reliable, we took the initiative to develop a set of better set of kicker gears. Made in America, and manufactured with BAKER gear technology.

# **FITMENT**

- 1936-1986 H-D™ Big Twin Kicker Equipped Models
  - o Will Work With 14-Tooth H-D™ Starter Gear
- BAKER 4-Speed, Kicker Equipped Transmissions
- BAKER 6N4, Kicker Equipped Transmissions

# **INCLUDED PARTS LIST**

- PN 33430-56, Starter Gear, 16-Tooth
- PN 33350-56, Starter Crank, 24-Tooth
- PN 33560-56, Starter Clutch
- PN 33393-50, Starter Clutch Key
- PN 292014, Lock Washer, Starter Crank
- PN 6N4-SIDE, Side Cover Gasket

# **BAKER KLASSIC KICKER GEAR KIT**

## STARTER CRANK GEAR REPLACEMENT

- 1. Remove the transmission side cover assembly. It may be necessary to first remove the brake pedal assembly and exhaust and various brackets before the cover can be removed.
- 2. Carefully remove the old gasket and thoroughly clean both gasket surfaces being careful not to damage them.
- 3. Clamp the starter crank shaft in a vice with starter crank gear facing upwards. Bend the lock tab and remove the nut. Remove the starter crank gear. If necessary, use a suitable puller.
- 4. Clean all parts in a suitable solvent and blow dry.
- 5. Carefully inspect all parts. Check the side cover for cracks. Check the bushings in the cover excessive wear and replace the bushings and o-ring if necessary.
- 6. Coat the starter crank shaft with a suitable assembly lubricant. Reassemble the side cover with new starter crank gear and lock tab. Make sure that starter crank gear is properly "clocked" during assembly. Refer to the factory service manual.
- 7. Install the starter crank gear with a new lock tab. Apply some red thread locking compound to the threads and tighten nut to 42 ft lbs. Bend lock tab against nut.

## STARTER CLUTCH AND STARTER CLUTCH GEAR REPLACEMENT

- 1. Remove throw out bearing and pushrod assembly
- 2. Bend lock tab away from starter clutch nut
- 3. Remove starter clutch nut. If top is off of transmission, you may lock transmission in 2 gears at once to lock the mainshaft.
- 4. Remove starter clutch using a suitable puller. Sometimes, it is helpful to apply some localized heat if the gear is very difficult to remove. Refer to the factory service manual for proper puller and specifics.
- 5. Clean the tapered end of the mainshaft. Carefully inspect the mainshaft. If the keyway is badly damaged, or there is evidence that the gear has "spun" and the taper is damaged, the mainshaft must be replaced. Minor flaws may be dressed with a file and some emery cloth. Clean and dry the taper with lacquer thinner.
- 6. Check the fit of the starter clutch gear on the mainshaft (dry). The gear must have a small amount of side to side play or "shake". If the starter clutch gear is too tight, it will seize on mainshaft.
- 7. Coat the bushing in starter clutch gear with a suitable assembly lubricant. Install conical spring with large end facing transmission mainshaft bearing and small end against starter clutch gear.
- 8. Clean and dry taper and inside of starter clutch with lacquer thinner. Be sure that starter clutch fits correctly and squarely on tapered end of mainshaft. Insert the new key into keyway slot in mainshaft and starter clutch. Key must be a slip fit. Do not hammer key into keyway. If necessary, sand key with emery cloth on a flat surface until key fits easily. (Note: when running very large or very high compression motors, it is sometimes advisable to apply a small amount of green sleeve retainer to the tapered end of shaft and coat taper evenly. Again, all parts must be perfectly clean and dry.)
- 9. Install new lock tab and apply red thread lock to threads. Torque nut to 50 ft lbs. Bend the tabs of the provided new lock tab over the sides of the nut with a small punch.
- 10. Install new gasket and install transmission side cover. Apply blue thread lock to fasteners and torque to 20 ft lbs.
- 11. Refill transmission with a suitable lubricant. BAKER recommends Spectro™ PN BD75140.
- 12. Replace exhaust system and any brackets previously removed.

# **TERMS & CONDITIONS**

#### **ORDERS**

Orders can be pre-paid using VISA, MasterCard, American Express, and Discover or via wire transfer (\$30 wire transfer fee applies). All orders not pre-paid will be sent C.O.D. certified check or money order only unless pre-approved for company check acceptance. Any orders from outside the USA must be pre-paid in US funds via wire transfer (\$30 transfer fee applies).

Prices shown are F.O.B. Haslett, MI. BAKER™ ships via UPS Ground or USPS Parcel Post for all orders. UPS air shipment or USPS Priority/ Express services are available upon request. Customer is responsible for all shipping charges unless otherwise arranged at the time of sale.

#### CUSTOMER SUPPORT

For any installation or service questions, please contact our BAKER technical department: 1-517-339-3835.

#### LIMITED WARRANTY

NOTE: Warranty card must be returned within 45 days of purchase for your warranty to be valid.

BAKER™ transmission assemblies and transmission builder 's 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, whichever occurs first. All other BAKER products 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 occurs first, except for the following; Warranty does not cover clutch plate wear, throw out bearing failures or mainshaft breakage due to improper clutch nut installation.

Electrical components carry a 30-day warranty; cosmetic finishes (chrome plating, hard anodizing, powder coating) are covered for 60 days. Certain promotional products may carry a shorter warranty as specified at the time of purchase. 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 a description of the problem. If it is deemed necessary for BAKER to make an evaluation to determine whether the transmission assembly or transmission kit or accessory 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 purchase invoice. If after evaluation by BAKER a defect in materials and/or workmanship is found, BAKER will, at their option, repair or replace the defective part of the assembly.

# RETURNS AND EXCHANGES

Any merchandise returned for any reason (exchange, credit or modification) must be accompanied by a Return Goods Authorization (RGA) number or it will be refused. Call BAKER to obtain this number prior to returning goods for any reason. There is a 15% re-stocking fee for all returned items.

BAKER is not liable for any shipping.

#### ADDITIONAL WARRANTY PROVISIONS

NOTE: 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: BAKER OEM transmissions; (these are subject to the OEM manufacturers warranty only), Improper installation, accident, modification (including but not limited to use of unauthorized parts, transmission oils or lubricants), 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, 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 and accessories are designed exclusively for use in American V-Twin motorcycles. BAKER shall have no warranty or liability obligation if BAKER parts are used in any other application.

If it is determined that a BAKER product has been disassembled during the warranty period for any reason, this limited warranty will no longer apply unless you were instructed to do so by a BAKER Drivetrain technician for diagnostic purposes.

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#### **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: 1-517-339-3835.

#### BAKER DRIVETRAIN

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