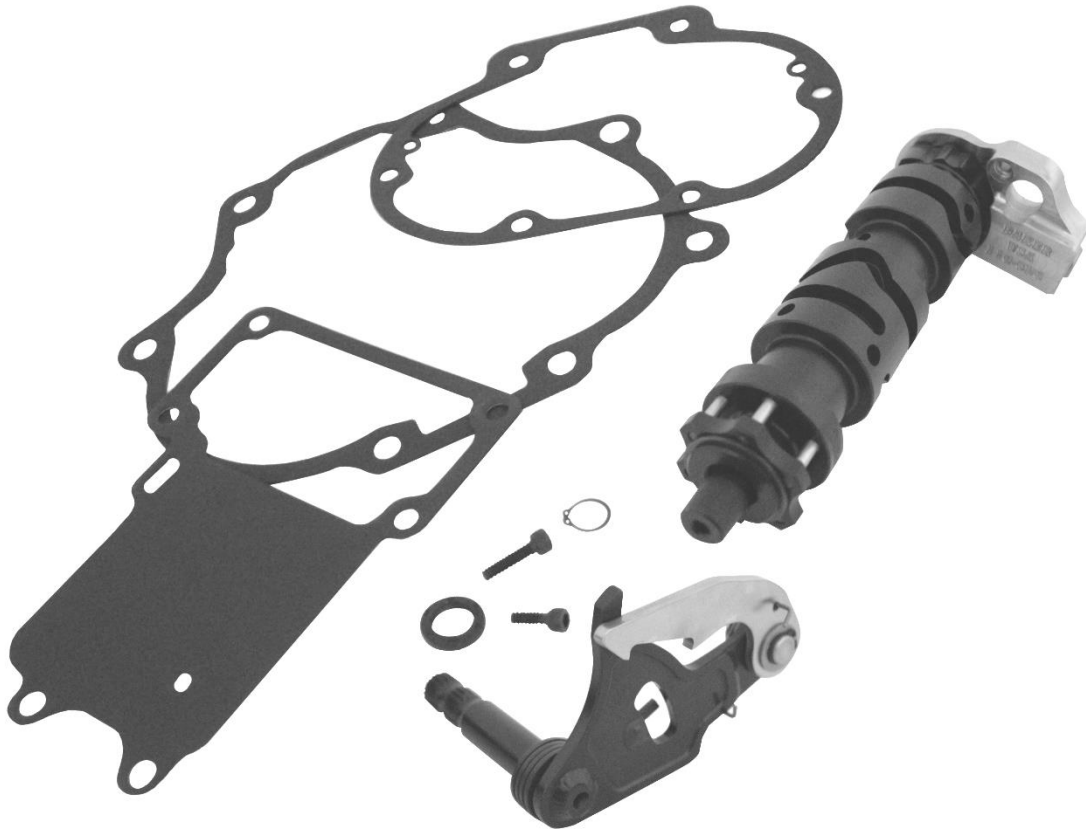


BAKER CD6 SMOOTH SHIFT KIT



P/N CD6-602
P/N CD6N1-602

P/N CD6-602-M8
P/N CD6N1-602-M8



BAKER CD6 SMOOTH SHIFT KIT OVERVIEW

FEATURES

- **Easier to find neutral** – Redundant neutral feature, and improved ratchet pawl geometry assist the rider in finding neutral the first time, every time.
- **Smoother, more positive shifting** – Smoother, positive shifting is achieved by incorporating advanced geometry in the fork pin groves, and the integration of a linear detent bearing on the right side mounting plate.
- **Reduced shift effort** – The fixed spindle drum design offers lower friction as the drum rotates, reducing the effort required by the rider to complete a shift.
- **Less shift clunk** – All of the CD6 design improvements are systemically engineered to achieve a precise mechanical choreography that is inherently silent.
- **Prevents missed shifts** – The ratchet pawl design incorporates an anti-overshift feature for both up and downshifts that prevent the rider from skipping over a gear.
- **Easy installation** – Just remove the stock gearset from the case and swap out the stock shift drum and pawl for the BAKER Smooth Shift Kit Drum & Ratchet Pawl. There is no need to disassemble the stock gearset from the bearing door.
- **No adjustments** – Direct bolt-in design requires no adjustments to the ratchet pawl or shift drum. Re-uses stock pawl centering pin, shift forks and fork rods.
- **High durability** – The ratchet pawl shaft is made of 4140 steel and has machined splines for higher strength and less chance of stripping. The shaft is press fitted into the ratchet pawl body, then precision TIG welded for increased long-term durability.

FITMENT

- P/N CD6-602 and CD6N1-602
 - 2006 – Later Dyna Twin-Cam Models
 - 2007 – Later Softail & Touring Twin-Cam Models
- P/N CD6-602-M8 and CD6N1-602-M8
 - 2017 – Later Touring Milwaukee-Eight Models
 - 2018 – Later Softail Milwaukee-Eight Models

TOOLS REQUIRED

- Torque wrench (reads both in-lbs and ft-lbs)
- Common hand tools (allen wrenches, sockets, snap ring pliers, etc.)
- Transmission fluid and primary fluid
- Primary gaskets
- Inner race puller / installation tool (BAKER P/N TOOLB-56 or equivalent)
- H-D factory service manual

BAKER CD6 SMOOTH SHIFT KIT DETAIL VIEW

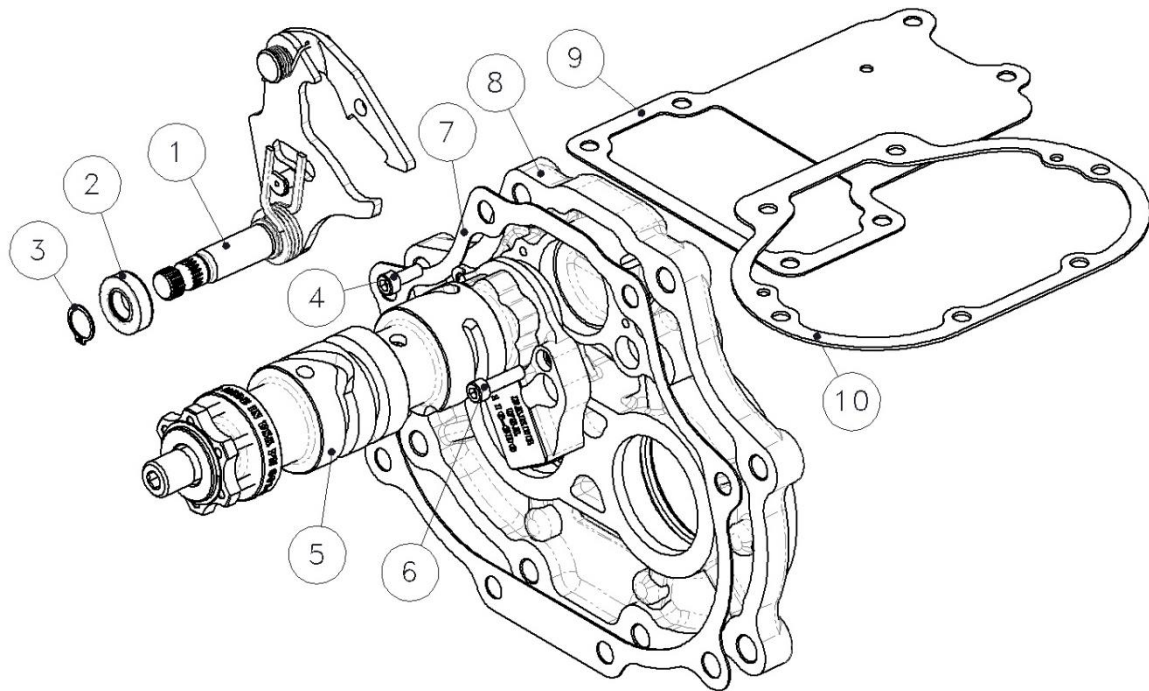


FIGURE 1

| ITEM | QTY | P/N | DESCRIPTION |
|------|-----|--------------|-----------------------------------|
| 1 | 1 | 555-06A | Shifter pawl assembly |
| 2 | 1 | 37101-84B | Seal, shifter pawl |
| 3 | 1 | 68010 | Snap ring, 7/16" external |
| 4 | 1 | 10C50KCS | Fastener, 10-24 x .500" SHCS |
| 5 | 1 | 601-CD6 | Shift drum, standard pattern |
| | | 601-CD6-17 | Shift drum, standard pattern, M8 |
| | | 601-CD6N1 | Shift drum, N1 pattern |
| | | 601-CD6N1-17 | Shift drum, N1 pattern, M8 |
| 6 | 1 | 10C75KCS | Fastener, 10-24 x .750" SHCS |
| 7 | 1 | 35654-06-F | Gasket, bearing door |
| 8 | ** | Visual Aid | Stock bearing door (not included) |
| 9 | 1 | 34917-06-F | Gasket, top cover |
| | | 25700453 | Gasket, top cover, M8 models |
| 10 | 1 | 36805-06-F | Gasket, Side Cover |

BAKER CD6 SMOOTH SHIFT KIT INSTALLATION

PREPARATION

- 1) Remove the exhaust system, primary, clutch and transmission gearset from the motorcycle chassis per your H-D factory service manual. See figure 2.
- 2) Remove the stock shift forks, rods, shift system and detent spring assembly. See figure 3.



THOROUGHLY CLEAN THE THREADED SHIFT DRUM MOUNTING HOLES ON THE BEARING DOOR. USE BRAKE CLEANER OR EQUIVALENT. BLOW OUT DEBRIS / CLEANER USING SHOP AIR. WEAR EYE PROTECTION.

- 3) Remove the stock shifter pawl assembly and seal from the transmission case. Keep the washer for step 7 of the installation.
- 4) Clean gasket surfaces, threaded holes, and all fasteners removed from the transmission case during gearset removal.

INSTALLATION

- 1) Clean the supplied 10-24 x .500" and 10-24 x .750" fasteners before installing the new shift system. Use brake cleaner or equivalent.
- 2) Install the new shift system on the bearing door as shown in figure 4.
- 3) There are two fasteners that secure the shift system to the bearing door. Install the 10-24 x .500" fastener on the thinner countershaft side and the 10-24 x .750" fastener on the thicker mainshaft side.
- 4) Torque the two fasteners to 57-63 in-lbs.
- 5) Re-install the factory shift forks and rods referencing your H-D factory service manual.

(Continued on next page)



FIGURE 2 | STOCK GEARSET REMOVED



FIGURE 3 | STOCK SHIFT SYSTEM REMOVED



FIGURE 4 | INSTALLING BAKER SHIFT SYSTEM

BAKER CD6 SMOOTH SHIFT KIT INSTALLATION

INSTALLATION (CONTINUED)

- 6) Now that your new BAKER smooth shift system is installed (figure 5), you can move on to installing the new shifter pawl.
- 7) Install the supplied seal and shifter pawl assembly into the transmission case (figure 6). Re-use the stock washer that you removed in step 3 of preparation and install the supplied snap ring.



MAKE SURE THAT THE SNAP RING IS FULLY SEATED ON THE NEW PAWL ASSEMBLY.

- 8) Reinstall the transmission gearset using the new gaskets supplied in your kit. Then reinstall your primary and exhaust components. Follow your H-D factory service manual.



DURING THE INSTALLATION OF THE GEARSET, YOU WILL NEED TO LIFT THE SHIFTER PAWL ARM TO GET THE SHIFT DRUM TO SLIDE PAST. PULL UP JUST ENOUGH TO GET THE DRUM TO SLIDE BY (FIGURE 7); DO NOT OVER STRETCH THE SPRING. EXTENDING THE ARM TOO FAR WILL BEND THE SPRING AND DISRUPT PROPER FUNCTION OF THE SHIFT SYSTEM.

- 9) Installation is complete. Make sure to add the proper fluids as stated in your H-D factory service manual. Check fluid levels and ensure that there are no leaks after your initial test ride.



FIGURE 5 | NEW BAKER SHIFT SYSTEM INSTALLED



FIGURE 6 | NEW BAKER SHIFTER PAWL



FIGURE 7 | LIFT PAWL ARM OVER SHIFT DRUM DURING INSTALLATION

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.

BAKER DRIVETRAIN TERMS & CONDITIONS

DISCLAIMER

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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.