

# **BAKER TRANSMISSION REBUILD KIT**

***FOR BAKER DD6, OD6, DD5, AND  
FACTORY 5-SPEED TRANSMISSIONS***



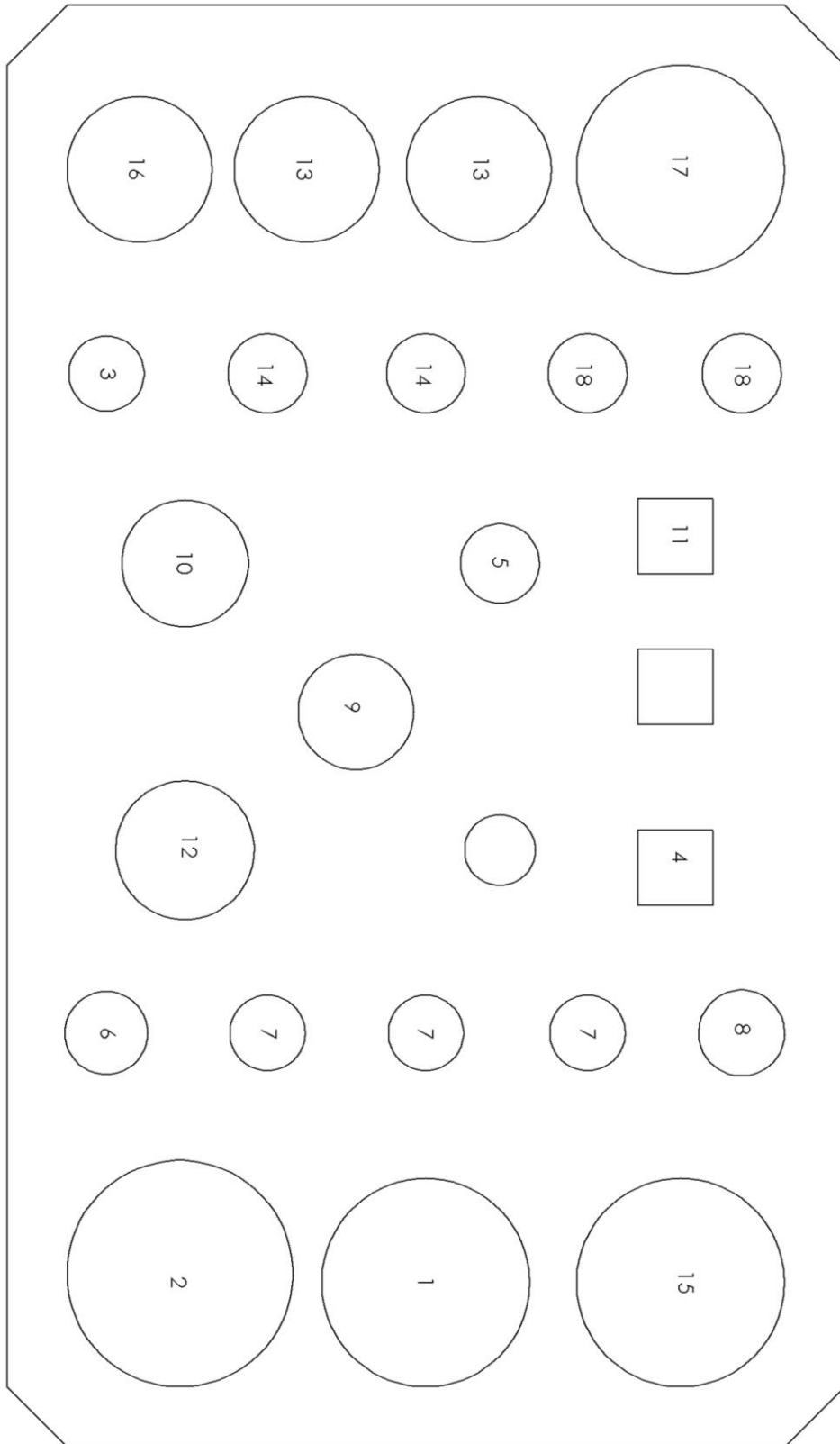
# **BAKER TRANSMISSION REBUILD KIT**

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# BAKER TRANSMISSION REBUILD KIT

## INCLUDED PARTS LEGEND



# BAKER TRANSMISSION REBUILD KIT

## INCLUDED PARTS LIST

### TRK-FLSTX & TRK-DYN KITS

| ITEM | QTY | BAKER P/N   | H-D P/N  | DESCRIPTION                           |
|------|-----|-------------|----------|---------------------------------------|
| 1    | 1   | 6209        | 8996A    | BEARING, MAIN GEAR                    |
| 2    | 1   | 1302-334PP  | 11161    | RETAINING RING, MAIN GEAR             |
| 3    | 1   | BK2526      | 8977     | BEARING, COUNTERSHAFT                 |
| 4    | 1   | 12045       | 12045    | SEAL, SHIFTER PAWL                    |
|      | 1   | 68010       | 11150    | RETAINING RING, SHIFTER PAWL          |
| 5    | 2   | 7340BD      | 35078-79 | NUT, 3/4-16, MAINSHAFT/COUNTERSHAFT   |
| 6    | 6   | 11067A      | 11067    | RETAINING RING, GEARSET               |
| 7    | 6   | 8876A       | 8876A    | NEEDLE BEARING, SPLIT CAGE, GEARSET   |
| 8    | 6   | 6003B       | 6003     | THRUST WASHER, GEARSET                |
| 9    | 1   | 12035B      | 12035B   | SEAL, MAIN DRIVE GEAR                 |
| 10   | 1   | 11165A      | 11165    | QUAD SEAL                             |
| 11   | 1   | TC411       | 37312-75 | BEARING, ACTUATOR ROD                 |
|      | 1   | 10705-01149 | 11096    | E-CLIP, ACTUATOR ROD                  |
|      | 2   | TWC411      | 37313-80 | WASHER, ACTUATOR ROD                  |
| 12   | 1   | 33344-94S   | 33344-94 | SPROCKET SPACER                       |
| 13   | 2   | 6304        | 8992     | BEARING, TRAP DOOR, 1999-2006         |
| 14   | 2   | HK2520      | 35051-89 | BEARING, MAIN DRIVE GEAR              |
| 15   | 1   | 12067B      | 12067A   | SEAL, MAIN DRIVE GEAR                 |
| 16   | 2   | 6204        | 8998     | BEARING, TRAP DOOR, 1994-1998         |
| 17   | 2   | 35239       | 11020    | RETAINING RINGS, TRAP DOOR, 1994-1998 |
|      | 2   | D1300-52PP  | 35087-99 | RETAINING RINGS, TRAP DOOR, 1999-2006 |

### TRK-FLSTX-E KITS ONLY

| ITEM | QTY | BAKER P/N | H-D P/N   | DESCRIPTION                        |
|------|-----|-----------|-----------|------------------------------------|
| 9    | 1   | 12013C    | 13013     | SEAL, MAIN DRIVE GEAR (MARKED RED) |
| 12   | 1   | 33334-85B | 33334-85B | SPROCKET SPACER                    |
| 18   | 2   | SCE1612   | SCE1612   | BEARING, MAIN DRIVE GEAR           |

# BAKER TRANSMISSION REBUILD KIT

## INCLUDED GASKETS LIST

### TRK-DYN

| <b>ITEM</b> | <b>QTY</b> | <b>P/N</b> | <b>DESCRIPTION</b> |
|-------------|------------|------------|--------------------|
| 1           | 1          | 36801-87B  | GASKET, SIDE COVER |
| 2           | 1          | 34904-86E  | GASKET, TOP COVER  |
| 3           | 1          | 35652-79B  | GASKET, TRAP DOOR  |
| 4           | 2          | 62432-93C  | GASKET, OIL SPOUT  |

### TRK-FLSTX & TRK-FLSTX-E

| <b>ITEM</b> | <b>QTY</b> | <b>P/N</b> | <b>DESCRIPTION</b>           |
|-------------|------------|------------|------------------------------|
| 1           | 1          | 36801-87B  | GASKET, SIDE COVER           |
| 2           | 1          | 34917-90A  | GASKET, TOP COVER, 1994-1998 |
|             | 1          | 34917-99A  | GASKET, TOP COVER, 1999-2006 |
| 3           | 1          | 35652-79B  | GASKET, TRAP DOOR            |
| 4           | 1          | 1302-334PP | GASKET, OIL SPOUT            |

# BAKER TRANSMISSION REBUILD KIT

## INTRODUCTION

The BAKER Transmission rebuild kit has the content necessary to perform a major overhaul on a 1994-2006 Big Twin 5-speed transmission. We highly recommend that the person doing the work have some Big Twin 5-speed transmission experience and that the person have access to a H-D Service manual and parts book that is appropriate to the model year of the transmission being overhauled. The BAKER Drivetrain website has DD5, DD6, and OD6 instructions which have some supporting information relative to the rebuild process. Thoroughly read and comprehend these instructions and the factory Service Manual before starting the overhaul process.

## REQUIRED TOOLS

- Main drive gear and bearing service kit; BAKER ToolA-56 or H-D equivalent
- Inner primary housing bearing race service kit; BAKER ToolB-56 or H-D equivalent
- Pulley nut (1-7/8") deep throat socket; BAKER ToolD-56 or H-D equivalent
- Hydraulic press to remove the shafts from the trap door bearings, remove trap bearings from trap door, and reassemble new bearings into the trap door and existing shafts into new trap door bearings. The press is also required to remove the old and install the new bearings and seal into the main drive gear.
- A pair of SRP5A Snap-on Eaton style retaining ring pliers, or equivalent, for removal and installation of the retain rings on the shafts.
- A pair of locking retaining ring pliers like MAC tools TP-7, or the equivalent, to remove and install the main drive gear snap ring. This snap ring is very large and can hurt you if it jumps off the fingers of the retaining ring pliers. This tool is not absolutely required but will reduce your level of anxiety during the rebuild process.

## DISASSEMBLY AND INSPECTION

Follow the factory Service Manual to remove the gearset from transmission case. It is not necessary to remove the transmission case from the chassis to remove the gearset from the case. Before, during, and after the gearset is removed from the case, take many pictures to document the condition of the gearset and to use for reference during assembly. Take detailed pictures of the retaining ring and adjacent thrust washer locations on the mainshaft and countershaft. These detailed pictures along with the gearset diagram from the H-D Service manual and/or BAKER website will ensure that the transmission is reassembled correctly. The gearset requires no shimming or tedious adjustments to set it up correctly.

# BAKER TRANSMISSION REBUILD KIT

## RECOMMENDATIONS

- 1) For reassembly, follow your factory Service Manual along with the recommendations below.
- 2) With good lighting and a magnifying glass, inspect all gear and dog teeth for cracks and excessive wear after you have thoroughly cleaned them. Replace gears that have cracks or excessive dog tooth wear. Pay particular attention to the gear teeth on the 5<sup>th</sup> countershaft gear. Inspect the fork that mates to the 1<sup>st</sup> mainshaft gear. The interrupted nature of that gear can cause excessive wear on that fork. Replace the fork if it shows excessive wear.
- 3) Inspect the male-female spline fit of the external shift arm that bolts to the shifter pawl splines. That spline fit should have zero spline lash when the 5/16-24 pinch bolt is tightened. If it does not fit tightly, now is the time to replace it or purchase a truss-style external shift arm from BAKER.
- 4) If you have a stock shifter pawl on your 1994-2000 Touring/Dyna or a 1994-99 Softail, we HIGHLY recommend that you replace it with a BAKER pawl. The round-section return spring on the stock pawl has a high failure rate. When it fails, the spring pieces get churned through the gears and make a mess. The BAKER pawl utilizes the late style rectangular cross section return spring that has an excellent track record in the field.
- 5) Take the fork rod and clean it well. Roll it across a granite block or piece of flat glass to inspect it for straightness. Replace the fork rod if you can fit a piece of paper under it on the glass or granite.
- 6) Remove the 12035B seal from the Main drive gear and note the positions of the HK2520 bearings that are pressed into the Main drive using a set of calipers. Measure and record the axial positions of both bearings. One bearing measurement will be taken from one side of the gear, the other will be taken from the other side. Use these measurements when you install the new HK2520 bearings into the Main drive gear. To install the new bearings, thoroughly clean the bore of the Main drive gear and the outer shell of the bearings to remove all oil residue. Put a slight-to-moderate amount of green Loctite on the bearings and install to the recorded depth. This will reduce the chance of the bearings walking in the bore when the transmission is back in service.
- 7) When the transmission is rebuilt and installed into the case, perform a shift function check by rotating the mainshaft CCW as viewed from the left side of the bike. Perform this check without the top cover and Main drive gear pulley installed.
- 8) If your secondary drive belt to the rear wheel has high miles or shows wear on the belt teeth, this is a very good time to replace it. The same goes for the clutch and clutch cable. Know this. The shift quality of your newly rebuilt transmission can be severely compromised by a worn clutch or clutch cable. If in doubt, replace the clutch plates and cable to achieve the best possible transmission performance.

# 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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