



## INSTRUCTION SHEET FOR GEAR No.35625-79B

### FOURTH GEAR - COUNTERSHAFT

USE ON 1980-PRESENT 5-SPEED BIG TWIN TRANSMISSION  
(MATE WITH; JIMS® No.8294, (H.D.® No.35028-79B) OR EQUIVALENT ONLY)



### **Thank you and congratulations!**

You and your Harley-Davidson® have just taken the first step towards owning the finest precision designed and engineered transmission components known to the Harley-Davidson® market. JIMS® gears and shafts surpass the stock requirements and demands of the present and future Harley-Davidson® motorcycle.

### **WARNING: Disconnect negative cable of battery.**

1. Refer to H.D.® Service Manual for removal of old gears. ( Do not reuse the lock rings) See JIMS® catalog for JIMS® transmission rebuild kit, containing all the parts needed to rebuild a transmission, along with JIMS® professional service tools.
2. With countershaft in hand and 4th gear removed from countershaft, do a trial fit of JIMS® fourth gear No.8294 (#35625-79B) on the countershaft. The fourth gear needs to slide freely over the splines of the countershaft (some mainshafts and countershafts have a large pitch diameter and burrs on the splines). If first gear will not slide over countershaft, turn gear one tooth at a time until gear slips over countershaft. If gear will not go over countershaft smoothly, the countershaft may have some burrs on the splines that can be removed with lapping compound, like JIMS® #1083 for coarse and #1084 for fine.
3. If you need to lap gear to countershaft remove all parts from countershaft and mark those parts for location and rotation, for reassembly.
4. Apply a few small finger dabs of lapping compound to I.D. of gear, slide gear over countershaft with a back and forth motion several times.
5. Wash all traces of lapping compound from gear, and countershaft, I.D. and O.D. NOTE: Check all other sliding gears for smooth movement on countershaft, lap in if needed.
6. You may still need to turn gear one tooth at a time to find the smoothest fit.
7. Assemble per H.D.® Service Manual using all new parts, and assembly lube as needed.

### **NOTE!**

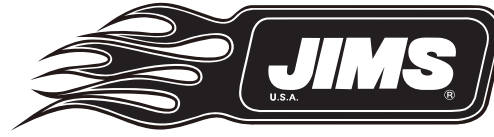
#### **Replacement Gears Listing:**

**When replacing gears, old to new, look on the face of the gear that is going to be replaced, for the lasered part number. See chart on page 2.**

Example of gear replacement when replacing a gear from one of JIMS pre Aug, 2005 PRO-CUT Trans Kits after determining the part number lasered on each gear. Example: The gear to be replaced is lasered with number 8065, mainshaft 6th. Therefore the replacement gear will be 8300-1, mainshaft 6th CR. This new mainshaft 6th gear will need to be mated to the following two gears, countershaft 6th gear 8301-1 and mainshaft 1st gear 8289-1.

**CAUTION: WEAR SAFETY GLASSES. EXCESSIVE FORCE MAY DAMAGE PARTS!**  
SEE JIMS® CATALOG FOR HUNDREDS OF TOP QUALITY PROFESSIONAL TOOLS.  
THE LAST TOOLS YOU WILL EVER NEED TO BUY.

*Performance Parts For Harley-Davidson® Motorcycles*



# INSTRUCTION SHEET FOR GEAR No.35625-79B

Gears from 8-05 and earlier. List of numbers lasered on gears below.				
Early PRO-CUT Part Numbers	PRO-CUT Gear Description for the column to the left	Replacement Part Number	Mating Gear on opposing shaft (gear form)	Mating Gears on same shaft (dog to dog engagement)
Lasered - 8065B Catalog # 8065B	Mainshaft 6th Gear	8300-1 MS 6th gear CR Catalog # 8300	8301-1 CS with 6th gear Catalog # 8300	8289-1 MS 1st gear Catalog # 8289
Lasered - 8066 Catalog # 8066B	Countershaft with integral 6th Gear	8301-1 Counter shaft w/ sixth gear Catalog #8301-1	8300-1 MS 6th gear CR Catalog # 8300	N/A
Lasered - 8061P Catalog # 8061PB	P/C Mainshaft C/R 1st Gear	8289-1 MS 1st gear Catalog # 8289	8290-1 CS 1st gear CR Catalog # 8290	8294-1 MS 4th gear - Catalog#8294 8300-1 MS 6th gear - Catalog # 8300
Lasered - 8062 Catalog # 8062B	Countershaft C/R 1st Gear	8290-1 CS 1st gear CR Catalog # 8290	8289-1 MS 1st gear CR Catalog # 8289	8064 CS 4th gear Catalog # 8064
Lasered - 8058-7 Catalog # 8058G	P/C Mainshaft 4th Gear	94-1 MS 4th gear Catalog # 9294	8064 CS 4th gear (no change) Catalog # 8064B	8289-1 MS 1st gear Catalog # 8289
Lasered - 8064 CS Catalog # 8064B	Counter 4th Gear	N/A	8294-1 MS 4th gear Catalog # 8294	8290-1 CS 1st gear CR Catalog # 8290
Lasered - 8058-5 Catalog # 8058E	P/C Mainshaft 3rd Gear	8292-1 MS 3rd gear Catalog # 8292	8293-1 CS 3rd gear Catalog # 8293	8291-1 MS 2nd gear Catalog # 8291
Lasered - 8063P Catalog # 8063PB	P/C Counter 3rd Gear	8293-1 CS 3rd gear Catalog # 8293	8292-1 MS 3rd gear Catalog # 8292	8292-1 CS 3rd gear Catalog # 8292
Lasered - 8058-3 Catalog # 8058C	P/C Mainshaft 2nd Gear	8291-1 MS 2nd gear Catalog # 8291	8292-1 CS 2nd gear Catalog # 8292	8292-1 MS 3rd gear - Catalog#8292 8296-1 MS Main Drive gear Catalog # 8296
Lasered - 8058-2 Catalog # 8058B	P/C Counter 2nd gear	8292-1 CS 2nd gear Catalog # 8292	8291-1 MS 2nd gear Catalog # 8291	8293-1 CS 3rd gear Catalog # 8293
Lasered - 35029-91 Catalog # 35029-91A	Mainshaft M/D/Gear 5th	8296-1 MS 5th gear Catalog # 8296	8299-1 CS 3rd gear Catalog # 8299	8291-1 MS 2nd gear Catalog # 8291
Lasered - 35626-79B Catalog # 53626-79B	Counter 5th Gear	8299-1 CS 5th gear Catalog # 8299	8296-1 MS 5th gear Catalog # 8296	N/A

**READ ALL INSTRUCTIONS BEFORE PERFORMING WORK!  
IF YOU DO NOT KNOW WHAT YOU ARE DOING, DO NOT DO IT!**

No information in this instruction sheet pertaining to motorcycle repair is represented as fool-proof or even altogether safe. Some people can ruin a mechanic's vise with a tack hammer. Even something safe, done incorrectly or incompletely can and will backfire. You are responsible for the safety of your work and knowledge of the tools, repair equipment, components, methods and concepts needed to complete these tasks. You must carefully and systematically perform each and every step safely. All information listed in this instruction sheet has been tested, re-tested and used daily in JIMS Research and Development Department.

**JIMS® IS NOT RESPONSIBLE FOR THE QUALITY AND SAFETY OF YOUR WORK!**

**If you are not sure about any of the procedures in these instructions, have a reputable H.D. repair shop perform these procedures for you.**  
**WARNING:** Always disconnect the Battery Ground Cable (at the battery) to prevent injury. Your work area should be well lit. Wear safety glasses (over your eyes) and protective clothing when working around power tools and compressed air. Be careful with chemicals when cleaning parts. Protect your skin from solvents and use only in a well-ventilated area. Degreasers are flammable and are a fire hazard. Just use common sense and exercise good judgement.

**CAUTION: WEAR SAFETY GLASSES. EXCESSIVE FORCE MAY DAMAGE PARTS!  
SEE JIMS® CATALOG FOR HUNDREDS OF TOP QUALITY PROFESSIONAL TOOLS.  
THE LAST TOOLS YOU WILL EVER NEED TO BUY.**

*Performance Parts For Harley-Davidson® Motorcycles*