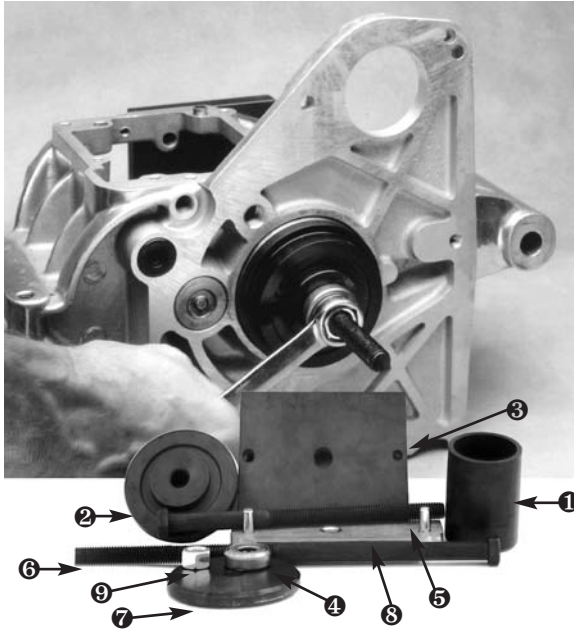




A Division of Thiessen Products, Inc.

INSTRUCTION SHEET FOR TOOL No.35316-80



USE TO REMOVE & INSTALL 5 SPEED MAIN DRIVE GEAR AND INSTALL ITS BEARING WITHOUT REMOVING TRANSMISSION
USE ON BIG TWIN - 1980-2006, EXCEPT 06 DYNA'S
USE ON SPORTSTER - 1991-2005

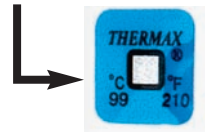
PARTS AVAILABLE SEPARATELY			
No.	Qty.	Description	Part No.
1	1	INSTALLER CUP	35316-80-1
2	1	BEARING INSTALLER PLATE	35316-80-2
3	1	MAIN PLATE	35316-80-3
4	1	BEARING	2010
5	1	8" BOLT	2137
6	1	12" BOLT	2138
7	1	GEAR PLATE	35316-80-7
8	1	XL MAIN PLATE	35316-91
9	1	NUT	2136
10	1	INSTRUCTION SHEET	35316-IS

Removing Main Drive Gear on Big Twins and Sportster

Refer to H-D® Service Manual to remove access cover and gears. Install support bracket No. 35316-91 for Sportster in the appropriate holes in trans case. For Big Twin use No. 35316-80-3 support bracket. Insert long bolt No. 2138 through support bracket and 5th gear. Make sure holes in the plate are on the same centerline as 5th gear. With cover screws, secure support plate to the opposite side of trans case. Install the long bolt through support plate and main gear. Place washer No. 35316-80-7 over bolt and against threaded end of main gear, followed by thrust bearing No. 2010. Oil threads in nut No. 2136, install nut on bolt and tighten slowly until main gear is free of bearing. **Note:** If you see corrosion by the gear to bearing surface, or if you're not seeing any movement of the main drive gear when tightening the nut, then you should heat the bearing with a butane torch - to break the bearing loose. Never exceed 200 degrees. Use JIMS® heat stickers No. 899. See Catalog.

To remove main bearing from case, Use JIMS® No. 1720.

Caution: When removing the main drive gear, the bearing may be destroyed! See service manual.



Installing Main Drive Bearing on Big Twins and Sportster

Install support bracket in appropriate holes in trans case. For Sportster install support bracket No. 35316-91. For Big Twin use support bracket No. 35316-80-3. Place thrust bearing on long bolt, followed by No. 35316-80-2. One side of tool No. 35316-80-2 is used for 1980-1984 Big Twins to install H-D® No. 8978 ball bearing. The other side is for 1985 and up to install No. 8996 ball bearing. Place bearing ahead of tool No. 35316-80-2. Use a lube, like JIMS® No. 1226, on bearing, oil nut and tighten carefully until bearing is started in bore.

Installing Main Drive Gear on Big Twins and Sportster

Use a press fit lube on main gear. From inside of case, hand start gear in bearing. Next place thrust bearing No. 2010 over short bolt No. 2137 followed by installer cup No. 35316-80-1. Install bolt through gear with cup over gear, place tool No. 35316-80-7 over end of bolt. Oil nut and install, turn nut clockwise to install gear into bearing.

Caution: Make sure open end of tool No. 35316-80-1 supports and seats on bearing inner race before installing gear!
 Use a lube, like JIMS® No. 1226. - Refer to H-D® Service Manual.

Performance Parts For Harley-Davidson® Motorcycles