

INSTALLATION INSTRUCTIONS FEULING® CRANKSHAFT BEARING RACES / THRUST WASHER KITS



Twin Cam Engine Crankshaft bearing race kits for A and B model engines. Kits includes right and left side crankshaft races with the left side thrust washers. These Feuling press on races have a precision ground outer diameter finish and are designed to be true to size producing the correct OD after proper press on installation

Part # 5200 Crankshaft bearing race kit for A model engines. Kit includes right and left side crankshaft races with the left side thrust washers. These Feuling press on races have a precision ground outer diameter finish and are designed to be true to size producing the correct OD after proper press on installation. Fit TC '99-'17 A Engines (Alpha Engine) Dyna and Bagger models.

Part # 5205 Crankshaft bearing race kit for B model engines. Kit includes right and left side crankshaft races with the left side thrust washers. These Feuling press on races have a precision ground outer diameter finish and are designed to be true to size producing the correct OD after proper press on installation. Fit TC '00-'17 B Engines (Beta Engine) Softail models.

Part # 5206 Crankshaft bearing race kit for M-Eight and TC B model engines. Kit includes right and left side crankshaft races with the left side thrust washers, pinion race is undersized allows the crank to be serviced then a new smaller ID race installed. These Feuling press on races have a precision ground outer diameter finish and are designed to be true to size producing the correct OD after proper press on installation. Fit M-Eight 17-22, TC '00-'17 B Engines (Beta Engine) Softail models.

IMPORTANT NOTICE

This installation should be done by an experienced mechanic who has access to a factory service manual and all required tools.

CAUTION

Incorrect installation can cause engine damage not covered under warranty. Failure to install components correctly can cause engine seizure. Engine seizure may result in serious injury to motorcycle, operator, passenger, and/or others.

IMPORTANT NOTICE

Measure flywheel pinion shaft run out. Excessive pinion shaft run out will cause camplate and oil pump damage and or failure. Excessive pinion shaft run out will void manufacturer's warranty.

CAUTION

Removal of the rocker arms and or pushrods with the valve train loaded can damage rocker arms, push rods, bushings and or camplate. Rotate engine to TDC of compression stroke on the servicing cylinder.

WARRANTY NOTE

Feuling offers an additional 12 month warranty for a total of 2 years if product is installed by a professional V-Twin installer, oil tank is dropped and cleaned at time of install and the WARRANTY REGISTRATION form is filled out - form can be found on www.Feulingparts.com

1. Refer to the proper factory service manual for your model and year of engine, for removal and install of the crankshaft races and thrust washers.
2. Clean and inspect each new Feuling® race and thrust washer prior to installation
3. Secure crankshaft in a proper clamping device.
4. Heat bearing race, this will help aid race removal.
5. Remove bearing race using a puller.
6. Once the race is removed, clean the crankshaft area and verify that the shaft is free of burrs. Fine grit sandpaper and/or scotch-brite may be used to remove burrs if needed.
7. Place new thrust washer on the crankshaft and heat the new bearing race, heat will aid in the installation of the new race.
8. Place a small amount of green Loctite (620) around the race area of the shaft and install race on crankshaft using a sprocket shaft bearing installer.
9. If you are working on a 2003 and later Twin Cam engine with roller bearings in both case halves repeat steps 3-8 for the other side.

#5200

SUB PART #	QTY.	DESCRIPTION	ID	OD	WIDTH
#310	1	A ENGINE PINION RACE, CAM SIDE	1.2502" +/- .0002"	1.6502" +/- .0002"	1.1195" +/- .0005"
#312	1	A + B ENGINE LEFT, SPROCKET Primary side	1.2502" +/- .0002"	1.6502" +/- .0002"	.7105"-.7115"
#313	2	WASHER, QTY. 2 PER KIT	1.255" +/- .001"	1.828" +/- .001"	.1370" +/- .0005"

#5205

SUB PART #	QTY.	DESCRIPTION	ID	OD	WIDTH
#311	1	M8 + B ENGINE PINION RACE, CAM SIDE	1.2502" +/- .0002"	1.6502" +/- .0002"	.8735" +/- .0005"
#312	1	A + B ENGINE, SPROCKET LEFT, Primary side	1.2502" +/- .0002"	1.6502" +/- .0002"	.7105"-.7115"
#313	2	WASHER, QTY. 2 PER KIT	1.255" +/- .001"	1.828" +/- .001"	.1370" +/- .0005"

#5206

SUB PART #	QTY.	DESCRIPTION	ID	OD	WIDTH
#315	1	M8 + B ENGINE PINION RACE, CAM SIDE Undersized ID	1.2452" +/- .0002"	1.6502" +/- .0002"	.8735" +/- .0005"
#312	1	A + B ENGINE LEFT, PRIMARY SIDE	1.2502" +/- .0002"	1.6502" +/- .0002"	.7105"-.7115"
#313	2	WASHER, QTY. 2 PER KIT	1.255" +/- .001"	1.828" +/- .001"	.1370" +/- .0005"

#310	A ENGINE PINION RACE, CAM SIDE
#311	M8 + B ENGINE PINION RACE, CAM SIDE
#312	A + B ENGINE LEFT, PRIMARY SIDE
#313	WASHER, QTY. 2 PER KIT
#315	M8 + B ENGINE PINION RACE, CAM SIDE, UNDERSIZED ID



**1/9/23
WARRANTY:**

All parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of twelve (12) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at FOP's option if the parts are returned to FOP by the purchaser within the (12) month warranty period. In the event warranty service is required, the original purchaser must notify FOP of the problem immediately. Some problems may be rectified by a telephone call and need no further action. A part that is suspect of being defective must not be replaced without prior authorization from FOP. If it is deemed necessary for FOP to make an evaluation to determine whether the part was defective, it must be packaged properly to avoid further damage, and be returned prepaid to FOP with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. After an evaluation has been made by FOP and the part was found to be defective, repair, replacement or refund will be granted. Excessive flywheel pinion shaft run out will damage camplate and oil pump and or cause engine damage and or failure. Damage to Feuling oil pump corporation products from excessive pinion shaft run out will void manufacturer's warranty.

ADDITIONAL WARRANTY NOTE

Feuling offers an additional 12 month warranty for a total of 2 years if product is installed by a professional V-Twin installer, oil tank is dropped and cleaned at time of install and the WARRANTY REGISTRATION form is filled out - form can be found on www.Feulingparts.com

ADDITIONAL WARRANTY PROVISIONS:

FOP shall have no obligation in the event an FOP part is modified by any other person or organization, or if another manufacturer's part is substituted for one provided by FOP. FOP shall have no obligation if an FOP part becomes defective in whole or in part as a result of improper installation, improper break-in or maintenance, improper use, abnormal operation, or any other misuse or mistreatment. FOP shall not be liable for any consequential or incidental damages resulting from the failure of an FOP part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in non-conforming condition, or any other breach of contract or duty between FOP and the customer. The installation of parts may void or otherwise adversely affect your factory warranty. In addition, such installation and use may violate certain federal, state and local laws, rules and ordinances as well as other laws when used on motor vehicles operated on public highways, especially in states where pollution laws may apply. Always check with federal, state, and local laws before modifying your motorcycle. It is the sole and exclusive responsibility of the user to determine the suitability of the product for his/her use, and the user shall assume all legal, personal injury risk and liability and all other obligations, duties and risks associated therewith. Our high performance parts, engines and motorcycles are intended for experienced riders only. Feuling Oil Pump Corporation reserves the right to change prices and/or discounts without notice and to bill at the prevailing prices at the time of shipments. The words Harley®, Harley-Davidson® and H-D® and all H-D® part numbers and model designations are used in reference only. Feuling Oil Pump Corporation is in no way associated with, or authorized by Harley-Davidson Motor Co®. To manufacture and sell any of the engine parts described in this instruction sheet.