



Installation Instructions for KPMI<sup>®</sup> Part No: **20-21040**  
HARLEY DAVIDSON • MILWAUKEE-EIGHT • 2017-'19  
Black Diamond<sup>™</sup> Cylinder Studs

- 1) Using two standard 7/16-14 UNC nuts, remove old cylinder studs from cases. Remove the studs by tightening both nuts back to back on the stud. With a wrench on the lower nut, back out the old stud.
- 2) Properly clean case stud holes using a 7/16-14 UNC G3 bottoming roll tap. Be careful if the engine is assembled, not to allow the debris into the lower crank case. KPMI<sup>®</sup> suggests using Tapmatic<sup>®</sup> cutting fluid, ATF, or WD40<sup>®</sup> when cleaning up threads in the case.
- 3) Each end of the cylinder stud has a different thread type; one standard and one interference. The OEM head nut will not screw completely onto the interference end. In addition, the interference end is denoted by a dimple in the end of the stud. Apply a “neversieze” compound to the studs prior to installation. Install Black Diamond<sup>™</sup> studs by reversing the stud removal process, paying careful attention that the **interference end is threaded into the case**. Achieve the following stud height upon installation:
  - a. 5.040" Milwaukee-Eight
- 4) KPMI recommends using Loctite<sup>™</sup> (blue) on case studs only when threads in the case are worn or loose. If threads are too loose or worn, proper case repair must be made.
- 5) KPMI recommends the following torque procedure: It is absolutely necessary that a small amount of neversieze, oil or grease is applied to the head nut end of the stud prior to torquing the head. Using a **criss-cross pattern**, torque the head nuts according in the following increments:
  - a) 15 lb-ft
  - b) 35 lb-ft
  - c) 50 lb-ft Final Torque

Packaged By: \_\_\_\_\_

Date: \_\_\_\_\_