

#### **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. Improperly torqued bolts may result in oil leaks and distortion of components. If replacing the engines head bolts or studs always use new head & base gaskets.

### INSTRUCTIONS:

#### Some fastener kits may include fasteners not applicable to your model.

- **1.** Refer to the proper service manual for your model motorcycle engine.
- **2.** Wash, clean and inspect all new Feuling hardware.
- **3.** Clean and inspect all bolt holes.
- 4. Lightly coat the under head flange of all bolts with moly lube as well as washers when applicable.
- 5. Lightly coat threads with Loctite when and where applicable. (See owners manual)
- 6. It is recommended to use new gaskets and O-rings to insure proper sealing.
- 7. Check gaskets and O-rings for proper installation.
- 8. When installing fasteners on moving parts always rotate engine over several times before tightening to insure the parts are centered.
- 9. First finger tight each fastener using the proper sequence from your service manual, if no sequence is giving always use an alternating sequence starting in the center working your way out.
- 10. Torque the fasteners following your recommended torque values and always tighten fasteners stepping the torque value in small increments.

## ROCKER STUD INSTALLATION









#### HELP PREVENT M-EIGHT CYLINDER HEAD CRACKING!

Use Feuling/ARP rocker arm shaft studs and nuts to help relieve stress on the Milwaukee Eight cylinder heads. The factory and SE cylinder heads have an extremely weak link with the rocker arm shaft standoffs. By using a stud some of the stress is transferred from the standoff casting into the stud. The use of higher lift camshafts and heavier valvesprings puts additional stress on the cylinder head making the use of our stud kit a must.

- 1. Double nut the stud with qty. 2, 5/16-24 nuts, loctite the stud course threads & install into the cylinder head.
- **2.** Torque studs to 5 Ft. Lbs.
- Feuling recommends filling the rockers with oil using a oil squirt can, fill from the pushrod seat until oil squirts out the exit oil hole.
- **4.** Install rocker arms/shafts, Loctite the fine threads.

\*NOTE: It is important to seat the rocker arm shafts by evenly tightening the nuts to estimated 10 Ft. Lbs. then loosening to allow the shafts to settle in, then re-tighten evenly and step the torque to a final 24 - 26 ft/lbs.



Loctite course threads.



Fill rocker arm with oil.



Install stud.

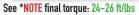


Loctite fine threads.



Torque to 5 ft/lbs (48-72 in/lbs









#### TOP ENGINE BUILDERS DEMAND QUALITY FASTENERS!

<u> Part #</u>	<b>Description</b>	<u>Qty.</u>	
3032	M-8 BAGGER EXTERNAL ENGINE, STAINLESS FASTENER KIT '17-'21 Case Bolts (5/16-18 x 3.250")	12	
3037	M-8 INTERNAL ENGINE, ROCKER STUD/NUT KIT BLACK OXIDE FASTENER KIT, '17-'21 Rocker Arm Studs (5/16-24 x 1.700") Rocker Stud Nuts (5/16-24)	8	
3047	M-8 INTERNAL ENGINE, BAGGER/SOFTAIL, BLACK OXIDE FASTENER KIT, '17-'21 Camplate (1/4-20 x 1.250") Oil Pump Allen Heads W/ washers (1/4-20 x 2.750) Rocker arm studs (5/16-24 x 1.700") Rocker stud nuts (5/16-24) Lower rocker covers Ft & Rear (1/4-20 x 1.000") Front & Rear Breather (1/4-20 x 1.250") Lifter Retainers (1/4-20 x 1.000") Cam Chain Tensioner (1/4-20 x .750") AN washers for oil pump bolts (1/4") Loctite (Packet) Ultra Torque Lube	6 4 8 8 2 2 2 4 1 1	on the other states
3052	M-8 BAGGER EXTERNAL ENGINE, STAINLESS FASTENER KIT '17-'21 Cover for front & rear Lifters (1/4-20 x 1.000") Cam Cover (1/4-20 x 1.250") Rocker cover bolts Ft & Rear — use washers (1/4-20 x 1.250") Washers (Lrg. Dia. 1/4-20) Horn mount, use washers (3/8-16 x 1.250") Oil Line Blocks off of head (1/4-20 x 1.000") Front Head Mount Bolts (3/8-16 x 1.750") Front Stabilizer link Bolts (3/8-16 x 1.250") Volt / Oil Line Bracket (1/4-20 x .750") Exhaust Studs (5/16-24 x 1.700") Exhaust Studs (5/16-24 x 1.700") Exhaust Nuts (5/16-24) Induction module bracket bolts (M6 1.000 x 20) Washer for induction module bracket (M6) Case Bolts (5/16-18 x 3.250") Ultra Torque Lube	8 9 20 2 4 2 2 2 4 4 2 2 12 12 1	* - -
3053	M-8 BAGGER PRIMARY & TRANSMISSION 12 POINT STAINLESS BOLT KIT '17-'21 Primary Cover (1/4-20 x 1.250") Primary Cover (1/4-20 x 4.000") Engine to Trans - bottom, use thick washers (3/8-16 x 2.000") Engine to Trans - top, use standard washers (3/8-16 x 1.500") Derby Cover use washers (1/4-20 x .750") Clutch Release Cover - sides & bottom use washers (1/4-20 x 1.500") Clutch Release Cover - top, use washers (1/4-20 x 1.000") Trans Bearing Housing Cover use washers (5/16-18 x 1.250") Transmission Top Cover use washers (1/4-20 x 1.000") 3/8" Washers, standard thickness (3/8") 3/8" Washers, Heavy duty (3/8") 5/16" Washers (5/16") 1/4" Washers (1/4") Ultra Torque Lube	9 4 2 5 4 2 8 6 2 2 8 2 2 8 22 1	* - - -
3062	M-8 ROAD GLIDE CHASSIS DRESS UP KIT '17-'21 Nacelle W/ Washer (5/16-18 x 0.560") Front Turn Signals (1/4-20 x 1.000") Front Brake Caliper Mounting Hardware (M10-1.50 x 1.375") Front Fender Mounting Hardware (5/16-18 x 1.750") Passenger Footpeg Top Mounting Bolt (3/8-16 x 1.000") Rear Brake Master Cylinder Mounting Hardware (5/16-18 x 1.000") Front Engine Isolater Mounting Brackets (3/8-16 x 1.250") Lower Engine Guard (3/8-16 x 0.750") Rider Floorboard, Front Bolt, Use Lock Waseher (3/8-16 x 2.250") Rider Floorboard, Rear Bolt, Use Lock Washer (3/8-16 x 1.250") License Plate Mounting Hardware, Use Lock Nuts (1/4-20 x 0.750") 1/4" Lock Nut (1/4") 5/16" Washer (5/16") 3/8" Lock Washer (3/8")	4 2 4 2 2 5 2 2 2 4 4 4 4	



# WARRANTY

#### \* STANDARD 1 YEAR WARRANTY:

- WARRANTY COVERS MANUFACTURE DEFECTS.
- DOES NOT COVER PARTS THAT HAVE FAILED DUE TO IMPROPER INSTALLATION, MAINTENANCE, EXCESSIVE CRANKSHAFT RUNOUT, OR MISUSE.
- DOES NOT COVER ANY CONSEQUENTIAL DAMAGE Resulting from a failure of a feuling product.

#### \* OPTIONAL 2 YEAR WARRANTY:

- ADDITIONAL YEAR WARRANTY IS ONLY AVAILABLE IF
- PARTS ARE INSTALLED BY A PROFESSIONAL INSTALLER. - THE ONLINE WARRANTY FORM MUST BE COMPLETED BY
- THE DEALER PRIOR TO BIKE DELIVERY.
- OIL TANK MUST BE DROPPED & CLEANED. - Crankshaft runout must be below 0.005"

# NOTE: FOR FULL WARRANTY INFORMATION VISIT

WWW.FEULINGPARTS.COM/WARRANTY

