

**V-Twin Mfg.**  
**Sifton Stud Repair Kit**  
**VT Part No. 11-0634**

**This is a custom application and rider safety depends on proper installation. This product should only be installed by a knowledgeable and trained motorcycle technician. V-Twin Mfg. accepts no responsibility for improper installation.**

Sifton Heavy Duty Cylinder Studs are necessary to help prevent head and base gasket leakage in stock and high performance applications. Sifton Studs are made of heat treated chromemoly, and have rolled threads for maximum strength. The Heavy Duty Stud Kit includes: 8 studs, 8 inserts, 1 special cutting tool, 1 special cutting sized tap and 1 tap guide.

Installation of stud kit is recommended before assembly of engine although for repair of stripped threads in engine case, this kit can be used following these steps.

**CAUTION: SIFTON RETAINER AND PARTICIPATING DISTRIBUTORS ARE NOT RESPONSIBLE FOR POOR WORKMANSHIP. CARE NEEDS TO BE A PRIORITY IN THIS OPERATION.**

Installation Instructions:

1. Remove top end, see manual for instruction.
2. Remove all 8 studs using V-Twin Part 16-0617 Stud Remover & Replacer.

**CAUTION: DO NOT LET CHIPS FALL INTO ENGINE**

3. Place a thin piece of cardboard between flywheel and bottom of hole to be drilled and tapped. (Do not use grease) When looking at the bottom of the hole to be drilled and tapped, you should be able to see cardboard. Place a shop towel or rag in or around rod and cylinder bore to keep chips from falling into engine.
4. Using a 3/8 drill motor and the special cutting tool that has a pilot, drill, counter bore and depth stop. (This tool is identified on the shank by SM-2 Sifton Ret. Place the shank in the 3/8 drill chuck so that the shank is held full length into the chuck. Tighten with chuck key. Moisten cutting tool with solvent only. (Do not grease or oil).
5. Holding drill motor, firmly with both hands, insert pilot into existing 3/8-18 threaded hole. This will be a snug fit and the pilot will align the tool with existing threaded hole.
6. Start drill motor and with one continuous and uniform motion drill and counter bore full the full length until the tool stops cutting.

**Note:** Counter-bore depth should be .080 to .090 deep.

7. Using shop vacuum carefully vacuum drilled and counter bored hole, removing all chips.
8. Using a special tap and tap guide, holding tap guide between thumb and index finger flush against engine case, carefully insert and tap hole, (using solvent on tap, do not use oil or grease). Check to make sure tap guide remains flush with case to insure a straight hole. Run tap continuously to depth of hole. Do not turn tap out until it bottom out in drilled hole where resistance is felt approximately (3) threads showing above the engine case. Remove the tap and again vacuum all loose chips.
9. Use blue loctite on both insert and stud (see loctite instruction for thread-prep) screw 1 1/2" long threaded end of stud into shouldered end of insert. Using V-Twin Part 16-0617 Stud Remover & Replacer, install assembly into tapped hole. When insert bottoms out on shoulder continue screwing stud to installed height of 5.730 + or - .030 on stock height cylinders. Set studs to the appropriate height for shorter or longer cylinders. When using shorter than stock height cylinders. such as .175" shorter all studs must be installed .175 deeper.

**Note:** On the eight (8) studs to be installed, you must cut .175 shorter at the 1 1/2" long threaded end to avoid running studs to far into engine case. Our studs are long enough to accommodate taller cylinders by adjusting installed height.

10. Assemble (see service manual for torque sequence). Our heavy duty stands can be torqued safely to 35 ft. lbs. on stock cylinders. The advantage to using are Sifton Kit is that you can R&R cylinders many times without thread failure at engine case.