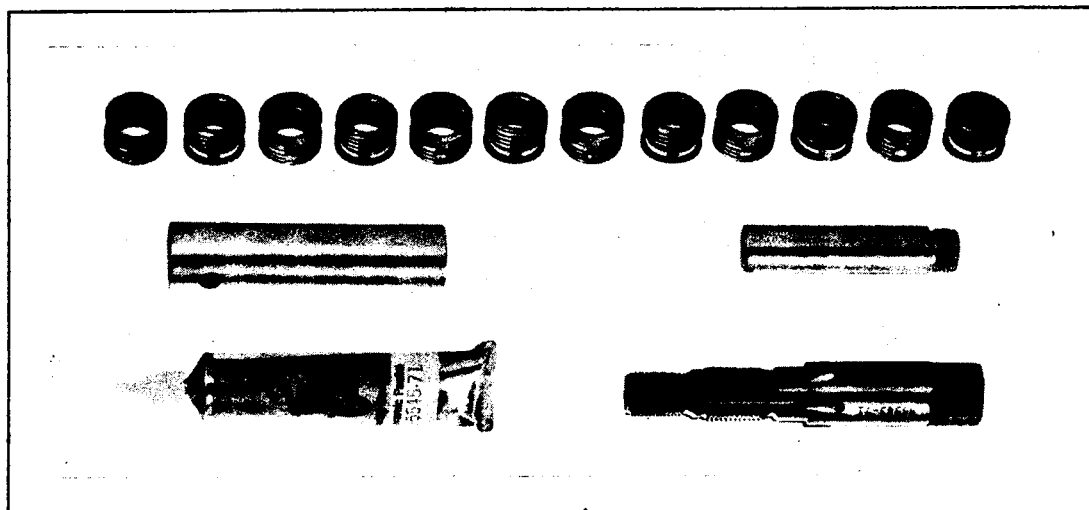


**SPARK PLUG PORT REPAIR KIT**

Harley-Davidson now offers a tool for repairing cylinder heads in which the spark plug threads have been damaged by cross-threading, etc. The tool has been specially designed for repair of damaged Heli-Coil threads in 74 OHV aluminum heads, but will also repair damaged threads in other heads requiring 14mm spark plug threads.



Spark plug port repair kit complete, part No. 95540-71, as shown is priced at \$49.50 dealer net. The kit consists of the following parts:

- 1 Precision reamer-tap tool, w/Heli-Coil pilot.
- 1 Tap guide and key-ring seating tool.
- 1 Insert installation tool.
- 12 3/8" Reach inserts with lock-rings, Part No. 95544-71. (Price \$10.32/Doz. Net)
- 1 Tube thread paste, Part No. 95545-71. (Price \$2.25 Net)

An instruction sheet is enclosed for your information.

HARLEY-DAVIDSON MOTOR CO., INC.

**PART NUMBER**

95540-71  
REV. 4/71

**INSTRUCTIONS****AMF** | HARLEY-DAVIDSON**GENUINE PARTS  
AND ACCESSORIES****HARLEY-DAVIDSON 14mm SPARK PLUG PORT REPAIR KIT**

This kit contains tools and inserts required to repair damaged spark plug threads in Harley-Davidson cylinder heads. This kit is especially suited for repair of damaged Heli-Coils in 74 OHV aluminum heads but will also repair damaged threads in other heads requiring 14mm spark plug threads.

**Contents:**

- 1 Precision reamer-tap tool, w/ Heli-Coil pilot, Part No. 95543-71.
- 1 Tap guide and key-ring seating tool, Part No. 95541-71.
- 1 Insert installation tool, Part No. 95542-71.
- 12 3/8" Reach inserts with lock-rings, Part No. 95544-71.
- 1 Tube thread paste, Part No. 95545-71.

(Note: Additional parts are available from the factory under the above part numbers.)

Remove the cylinder head, and secure it in a standard workbench vise, with free access to both ends of the spark-plug port. Remove Heli-Coil making sure it is completely removed.

Align the reamer-tap tool with the port to be repaired and attach to 3/4 inch end of a standard lug wrench or tap wrench, hand-held.

(Note: If spark plug reach is between one-half and three-quarters of an inch, reamer-tap should be used from the inside of the head first, reaming half-way through the port. Following that, proceed as described below.)

Holding correct alignment, begin to chase the old threads by turning the wrench (note pilot section at lead end of tool as it enters the damaged port).

Continue turning until nose of reamer-tap protrudes through the underside of the port. At this point, turn the tap guide onto the protruding reamer-tap until it reaches the underside of the head. Keep the tap guide against the underside of the port to provide the "pull" necessary to complete re-tapping the port, making sure that the tap guide does not rotate.

Continue to turn the reamer-tap until thread-cutting portion is completely within the port, then let the tap guide rotate as you continue to cut new threads.

When the counterbore reaming section of the reamer-tap tool reaches the top of the port, you are ready to cut the lock-ring counterbore.

With the smooth cutting edges of the reamer-tap touching the port, turn the reamer-tap one complete turn, plus 30°, and the counter-bore will be cut. Use the key-ring thickness as a gauge for counterbore depth; key-ring must be flush with cylinder head spot face when installed.

Unscrew the tap guide from the reamer-tap, then unscrew the reamer-tap, leaving the newly threaded port ready for the insert.

Thread the insert onto the male end of the insert installation tool. Thread the insert into the prepared port until a snug fit is achieved.

(Note: It is recommended that you use the special high-temperature ceramic epoxy cement on the threads of the insert before it is threaded into the port for best heat dissipation.)

Finally, slide the unthreaded end of the key-ring seating tool over the insert installation tool and strike the opposite end of the key-ring seating tool with a soft hammer until the key-ring is seated flush with the top of the insert. This locks the insert against rotation.

Proceed in an identical way to repair other damaged ports, as necessary, before re-assembling the engine. Remove any sharp edges inside the cylinder head that might cause pre-ignition.

When working with competition-modified cylinder heads, care should be exercised that valve seats, if enlarged, allow adequate sidewall dimension in the head to accommodate the insert after tapping. There also should be sufficient clearance inside the head to permit use of the reamer-tap tool without interfering with valves or valve seats.

On models not having Heli-coils, drill or ream out existing 14mm. threads with 11/16" dia. drill or reamer before using tap.

