

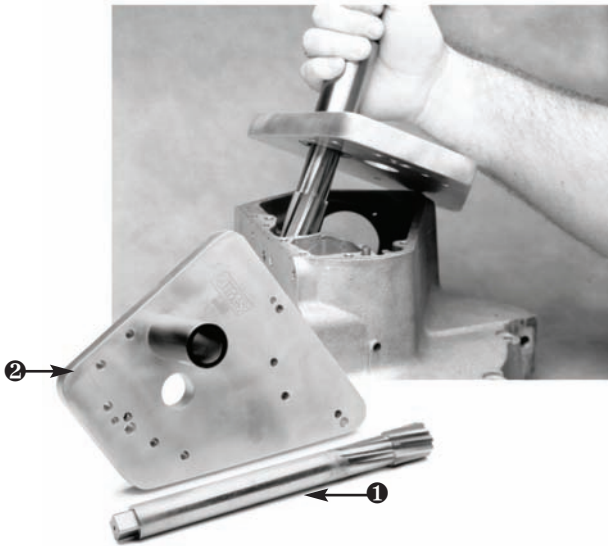


A Division of Thiessen Products, Inc.

## INSTRUCTION SHEET FOR TOOL #1706

### BREATHER HOLE REAMER

#### USE ON BIG TWIN SINGLE CAM 1936-PRESENT



### BREATHER REAMER TOOL

Repair a damaged breather hole with JIMS® new Breather Reamer Tool. No need to disassemble the cases, using JIMS® new reamer tool will repair a damaged breather hole to use a .030" oversize breather gear (see breather gear section in this catalog). Repair a bad breather hole in less than an hours time. **Note:** all holes in breather bore will need to be cleared of all chips.

No. 1706 - Use on Big Twin 1936-present.

#### PARTS AVAILABLE SEPARATELY

No.	Qty.	Description	Part No.
1	1	BREATHER REAMER	1706-3
2	1	PLATE ASSEMBLY	1706M
3	4	1/4"-20 SCREWS	2135
4	4	1/4"-24 SCREWS	2408
5	1	INSTRUCTION SHEET	1706-IS

#### IMPORTANT NOTE

*Some early crankcases 1936-69, have very little material between the breather hole and the air/oil separator cavity below it. Before using the No.1706 measure the wall thickness to verify that the reamer will not break through.*

No need to disassemble the cases, using JIMS® new reamer tool will repair a damaged breather hole to use a .030" oversize breather gear.

1. Refer to H-D® Service Manual for removal of cam cover, and all related parts, in order to access breather hole.
2. This tool is supplied with mounting screws (4) No. 2135 1/4"-20 screws for cases 1970-present. To use on 1936-69, use (4) No.2408 1/4"-24 cam cover screws.
3. Install ream with cutting portion toward the engine side of plate assembly, using a small amount of machine oil on the shaft. Also apply JIMS® Cutting Fluid, No. 1698, on the cutting end of reamer.
4. Install the plate assembly with reamer installed on engine with the proper screws (supplied).
5. Turn reamer clockwise with a light inward pressure until the reamer is bottomed in bore. **NOTE:** During the reaming process stop periodically to vacuum chips from breather pocket though the tappet block hole. **CAUTION:** Do not use compressed air to clear chips on an assembled motor without blocking off all passageways.
6. Before assembly you must remove all reaming chips from motor and check all passageways to make certain they are chip free.
7. Lube the O.D. of JIMS® .030 Oversize Breather Gear, (No. 2337 for late 1977-1999 and No. 2338 for 1948-early 1977 Big Twins) with JIMS® No. 1229 Assembly Lube. Slip in new gear, make sure gear goes all the way into the breather bore and spins freely. If the .030 oversized breather gear (the gear tooth portion) does not make contact with motor case, and will not spin freely, ream hole again making sure to go deep enough for breather gear.
8. Again, before assembling make certain all chips are removed from case. Follow H-D® Service Manual for reassembly of your year motor.

**CAUTION: WEAR SAFETY GLASSES. EXCESSIVE FORCE MAY DAMAGE PARTS AND TOOL.**

SEE JIMS® CATALOG FOR OVER 200 OTHER TOP QUALITY PROFESSIONAL TOOLS. THE LAST TOOLS YOU WILL EVER NEED TO BUY.

**"From the Track... To the Street!"**