

KaVo 68LH Repair Guide

This is a KaVo Latch-Style Bur, Push Button Head

Key Features: Push Button Operation; utilizes Latch Style Bur

The KaVo 68LH is compatible with KaVo Contra-Angles and also the L and LN motor series.

Head:



Latch Style Bur:



Complaint/Diagnosis:

1) Won't hold bur.

- A) There may simply be a piece of the old plastic bur end stuck in the chuck.
- B) The chuck clip may be off of the chuck insert
- C) The spindle itself may be broken
- D) The back cap may be dented and stuck in the open position

Solutions for A,B,C and D

- A) Depress push button back cap and lightly tap front of head on your work surface to dislodge plastic piece or you can simply remove the back cap and pick out the plastic bur.
- B) Remove the back cap and locate the chuck clip. Then try to reinstall the clip onto the chuck insert if this is not working, simply follow the disassembly steps and overhaul the turbine cartridge
- C) Replace turbine cartridge
- D) Replace the back cap

2) Runs rough

- E) Bearings are bad
- F) Gears are worn
- G) Severe head denting

Solutions for E,F and G

- E) Follow turbine overhaul procedures below
- F) Replace the driveshaft and/or turbine cartridge
- G) Remove head denting with .275" pin gage

3) Won't turn

- H) Bearings are completely frozen up
- I) Severe head denting
- J) Drive Shaft is frozen

Solutions for H,I and J

- H) Follow turbine overhaul procedures below
- I) Remove head denting with .275" pin gage
- J) Follow drive shaft overhaul procedures below

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Repair Procedures:

1) Head Disassembly

A.) Remove back cap with the Back Cap Tool (part# 10112B)

Cap is regular thread, turn left to loosen

B.) Remove the screw from the neck assembly with the .7mm allen wrench (part# 20115C)

The screw will strip if it's too stuck, a great remedy is to apply heat to the screw, then loosen

C.) Remove the drive shaft from the neck

Place the shaft in your 5C collet holder using the 13/64" collet (part# 00020)

Make sure the collet is holding the shaft about half way up, then secure shaft and twist and pull head

The head assembly will pull off of the shaft; be careful not to lose the leaf spring that is on the shaft

D.) Remove the turbine cartridge from the head assembly

Simply push the cartridge out of the back of the head, using your 00024LH punch

2) Turbine Cartridge Disassembly

A.) Remove the chuck retaining clip (part# 10138), it can easily be removed using an exacto knife blade
Be sure to keep a finger over the clip while removing it to avoid losing the clip

B.) Remove the chuck insert (part# 10150), it may simply fall out, or you can remove it with the knife

C.) Place the turbine cartridge down on your work surface and push the opposite sides of the rear bearing down. The rear bearing (part# KV68LDN) should slide down, off of the back of the spindle
Be sure to leave the spindle insert in place (part# 10138A)

D.) Place the spindle assembly into hole to the right of hole #1 on your work block

The top bearing will rest on the block with the back portion of the assembly down in the hole

Place your 00024LH punch into the front of the spindle and press the spindle out of the bearing

3) Driveshaft Disassembly

A.) First, try to turn the driveshaft gears by hand. If they turn smoothly, do not disassemble

B.) Secure the driveshaft into a 13/64" collet a little over half way, with the bottom gear up

C.) Using a punch, tap the middle shaft out of the top gear and remove from the collet

D.) Pull the top gear and middle shaft out of the driveshaft housing

E.) Using a highspeed bur at low RPM, carefully clean the hole in the bushings at either side of the shaft housing until the middle shaft can fit and spin freely.

Be very careful not to remove too much material, this will ruin the assembly

Lastly, buff the middle shaft to remove any debris buildup

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4) Driveshaft Reassembly

A.) Install the middle shaft with gear into the driveshaft housing (the small tooth gear end is the top end and goes closest to the flat cut out on the driveshaft housing)

B.) Now turn the gear and housing upside down on your work block with the exposed middle shaft end pointing up. Apply very small dab of grease on the shaft end. Place the loose gear onto the exposed shaft end and press onto the shaft until it stops.

This will lock up the drive shaft. Secure the driveshaft housing into your 13/64" collet with the newly installed gear exposed. Lightly tap the middle shaft with a punch until the gear begins to spin freely. The driveshaft is now properly reassembled.

5) Turbine Cartridge Reassembly

A.) Place the new front bearing (part# KV68LH) face down into the hole to the right of hole#1 on your workblock. Push the front end of the spindle into the bearing.

B.) Make sure the spindle insert is installed into the side of the spindle. Firmly press the new rear bearing (part# KV68LDN) onto the spindle until it hits the flange.

C.) Push the chuck insert into the groove in the spindle just above the bearing

D.) Carefully place the chuck retaining clip (part# 10138) around the insert.

Note: the insert piece has a small groove on its outside edge that the clip fits neatly into

6) Head Dent Removal

A.) If the cartridge was very difficult to remove or there is a flat spot on the head, you must remove the internal denting.

B.) Work a .273", then a .274", and finally a .275" pin gage fully into the head to remove denting

7) Install Turbine Cartridge

A.) Simply slide the turbine cartridge fully into the head. If it does not install fully, you still have some internal denting that must be removed. Perform Step 6 again.

B.) Secure the backcap onto the head using your cap tool (part# 10112B). Turn the tool to the RIGHT to tighten the cap.

8) Install the Driveshaft

A.) Place a dab of grease on the flat spot on the upper portion of the housing and place the leaf spring onto the grease. The bowed portion of the spring is UP.

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B.) Insert the upper portion of the housing into the head. Grab the lower portion of the driveshaft with a rubber strip and twist and push the driveshaft up into the neck of the head until the hole in the upper portion of the driveshaft is perfectly centered with the hole in the back of the neck of the head.

C.) Install the neck screw (part# 10128A). Use the allen wrench (part# 20115C) to tighten the screw. Turn the screw to the RIGHT to tighten.