

CHAPTER 4: OIL PUMP, CAM OUT, PISTON OFF WRIST

Posted on the Wildguzzi forum by Pete Roper: December 13, 2005:

Contents: Oil pump out, cam out, pistons off the wristpins

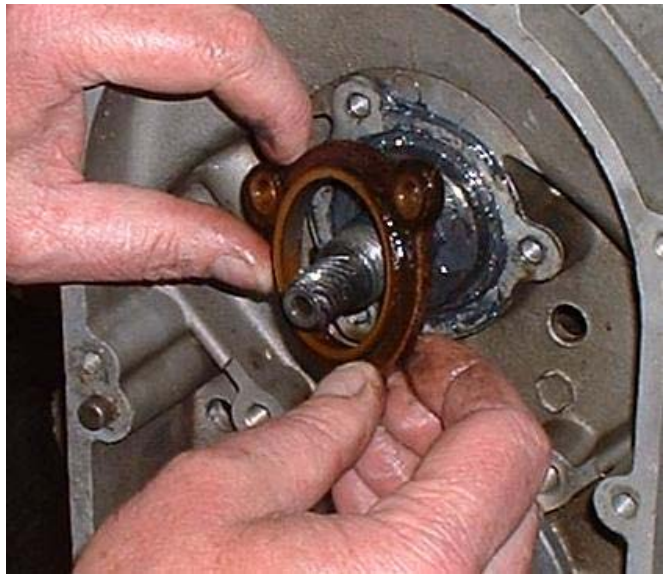
Pic 4-1:

This is obviously another block as the one we were working on went off to be blasted but the principles are the same. To remove the camshaft undo the three bolts holding on the retainer/thrust plate.



Pic 4-2:

The thrust plate can then be removed.



Pic 4-3:

And the cam withdrawn from the block.



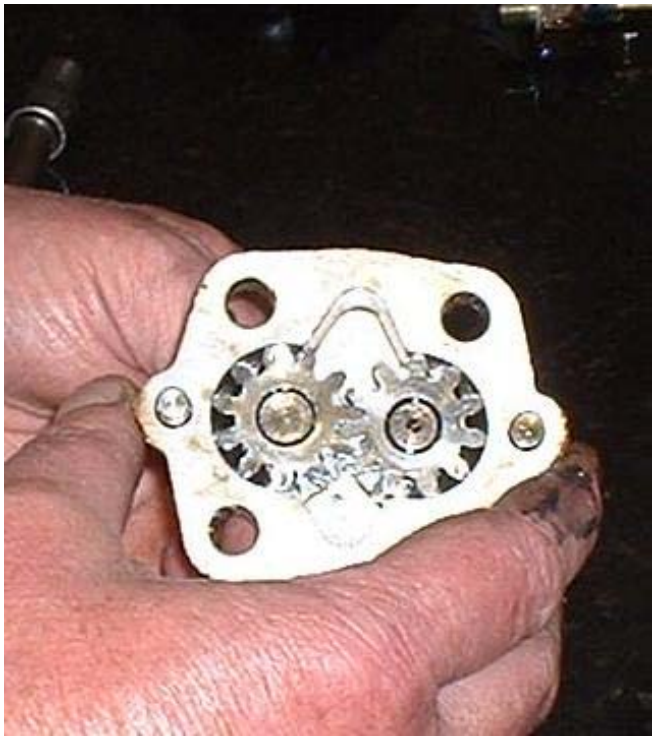
Pic 4-4:

Oil pump is retained by four 8mm, (Six mm allen head.) bolts and is pegged in place by dowels. Getting it off *can* sometimes be a bit tricky. VERY Gently tapping the body with a very small hammer will usually break the surface tension of the oil and it can be wiggled off.



Pic 4-5:

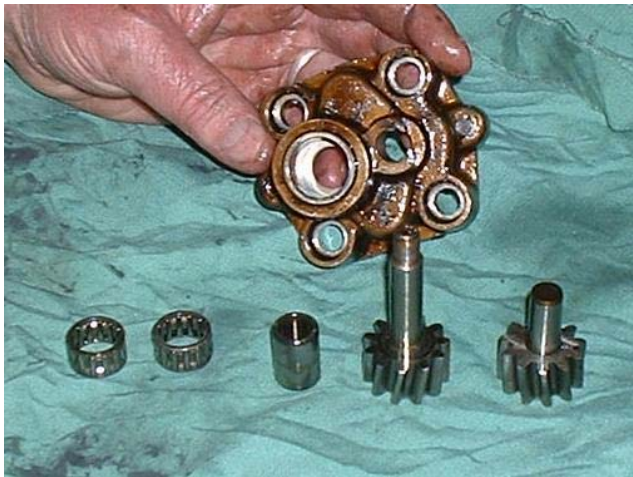
There it is! Note the dowels.



Pic 4-6:

There's all it's components. Note that the outer bearing race stays in the aluminium pump body. It could probably be removed with sufficient heat but I've never had to do it. If the pumps fail it is usually because the shaft of the driven gear, (The smaller one.) which runs directly in the pump body wears the housing out of rounds and the teeth of the pump then chew up the inner face of the pump. Earlier pumps on V7's etc have a slightly different pump with no bearings, the drive shaft has an outrigger that goes into a hole in the front of the crankcase and both it and the hole in the pump body are simply milled holes.





Pic 4-7A

Pic 4-7B

Pic 4-7C

Pic 4-7D:

Just a selection of shots showing how everything goes together.

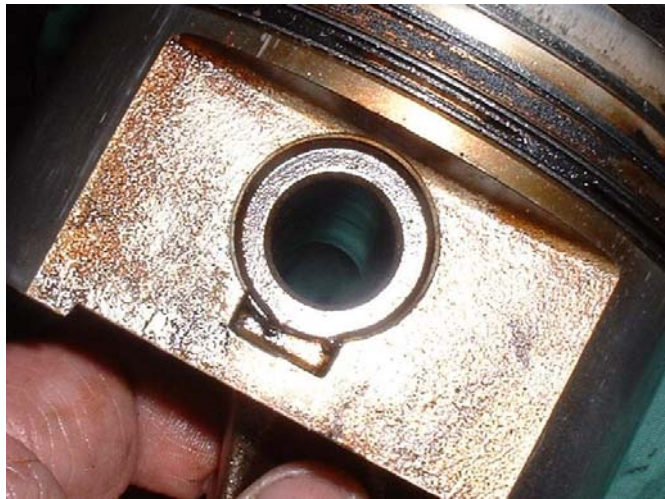
Pic 4-8:

All back together again. Do note that until the sprocket is re-installed there is nothing to keep the bearings in the pump and given half a chance they WILL fall out and roll away under something else on the bench. Without the bearings the pump shaft will collapse immediately it is pressed into service!!!!



Pic 4-9:

On to the piston and rod. Here is the circlip installed. Note that earlier bikes use a different type of circlip.



Pic 4-10:

Using a seal pick pry the circlip from it's groove and discard it. You NEVER re-use circlips EVER!! OK!!



Pic 4-11:

Once the circlips are out test to see if the gudgeon pin will move. On machines with forged pistons they should simply push out. Mk IV's use a huge, heavy, cast piston and the gudgeons are a tight fit so heat has to be applied to the bosses to remove them.



Pic 4-12:

Sometimes with a bit of heat the gudgeon will just drop out. In this case I simply got a small socket that would fit inside the pin and rested it in the there. Then I just kept adding heat until it gently slid out under the weight of the socket and extension bar. You should never have to biff it out!





Pic 4-13A

Pic 4-13B:

Using a micrometer check the size of the pin both where it runs in the bosses in the piston and where it runs in the little end bush and check against specs in the manual.

