

**TECH TIPS 12a**  
**How to revive a died 500 or 126 Engine.**

I was prompted to write how to revive a died engine when I read an article in the Club magazine about somebody who drove from London to Norwich to fit a 126 engine in his 500 and all the problems to obtain an engine oil pressure.

When an engine has been idle for sometime all the oil runs out of the pistons, the bores, camshaft bearings, main bearings, big ends, little ends and the most important thing the oil pump. All this oil settles in the sump with all the other rubbish.

The oil flows around the engine as follows.

The pump pulls oil from the sump through an oil pick-up filter screen, this pick-up pipe is connected to the crankcase and is ducted to the inlet to the pump.

The oil is discharged from the geared pump under pressure, [The pump is powered from a dog clutch on the end of the camshaft] into a duct which feeds the centrifugal oil filter, which is situated in the crankshaft pulley.

Once the oil has been filtered it feeds oil to the main bearings, big ends then into a duct up to the rocker shaft and the oil pressure switch. Then the oil ends back in to the sump.

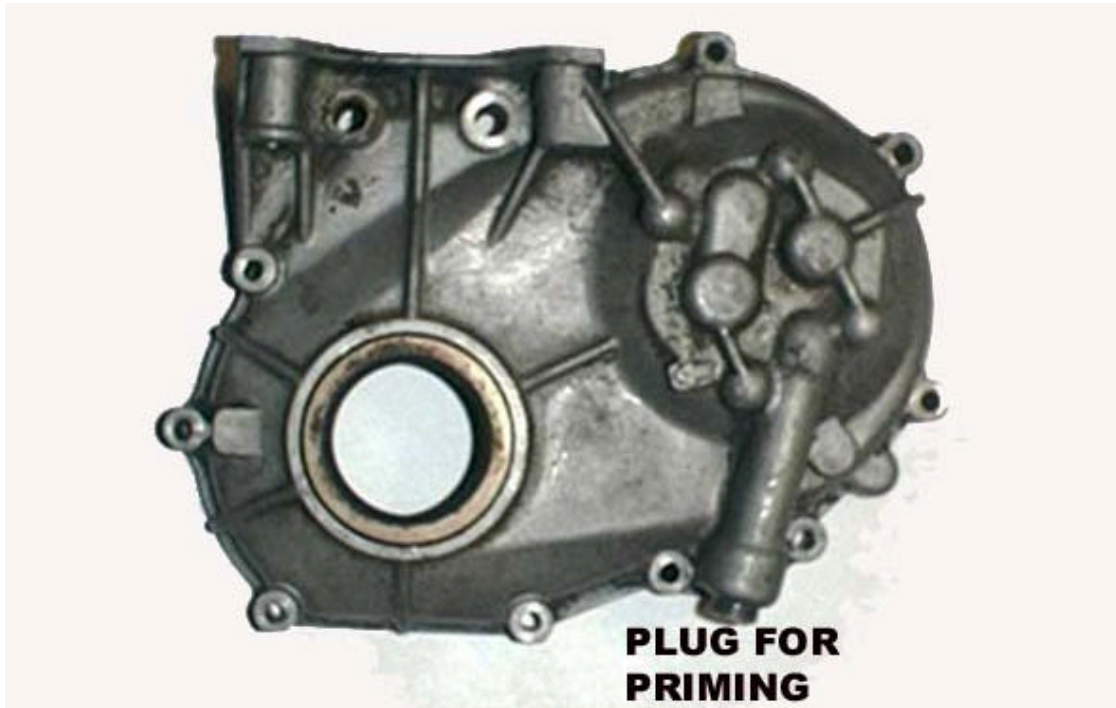
Now we know the way the oil flows in the engine we can now start to get the engine ready.

01. Drain the sump and leave to drain over night, even tip the engine so the oil flows towards the drain hole. Remove the spark plugs and spray WD40 down the and across the top of the pistons.
02. Remove the sump and rest the engine on two 4in x 2 in pieces of timber so not to damage the pick up tube. When you have the sump off always check the distance of the pick-up tube filter from the sump flange of the engine, it should be 80mm. The distance between the oil pick filter and the bottom of the sump should be 12mm.  
To check the distance put a straight edge along the sump flange of the engine (no gasket) and measure down to the underside oil pick-up filter and it should be 80mm.  
While the sump is off clean the inside and then check the oil cooler that runs on the under side of the sump make sure it's not damaged and the ports are clean. The way to clear a damaged port is. Get a piece of mild steel flat bar 20mm x 3mm, make sure there are no sharp corners, and tap gently down the port at the same time moving the bar from side to side so not jamb, do this till clear, then clean out with a bottle brush clean out with paraffin.

**03. Now Start and Prime the Engine with Oil.**

- a. Replace the sump, sump plug and fit a new gasket. NOTE. When fitting a new gasket make sure the engine block and sump is clear of the old gasket. Smear both sides of the gasket with grease, this will make the gasket spread and bed in to a perfect seal.
- b. To prime the pump, there is a plug on the chain case with a 6mm Allen key (see photo) remove and fit a rubber tube with a tundish, fill with oil and turn the engine over in about four times. The oil will go down in the tundish; the pump is now being primed.
- c. Put oil on to the top of the cylinders and keep on turning, keep the tundish topped-up.
- d. When about half-pint of oil has passed through the pump the system should now be completely primed.
- e. Replace the plug and top-up the engine with thin oil straight SAE 20. This oil is for flushing all the oil channels and cleaning the inside of the engine.

- f. Start the engine and run on low revs. Checking the oil pressure and making sure the engine does not over heat, which it can at low revs.
  - g. Drain the flushing oil and replace with a good grade oil. I tend to use Castrol red tin 20w 50.
- NOTE:- If you are lucky to have the engine out, the best way to prime a pump is to tip the engine upside down and pour the oil down the hole at the same time turn the engine over.



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