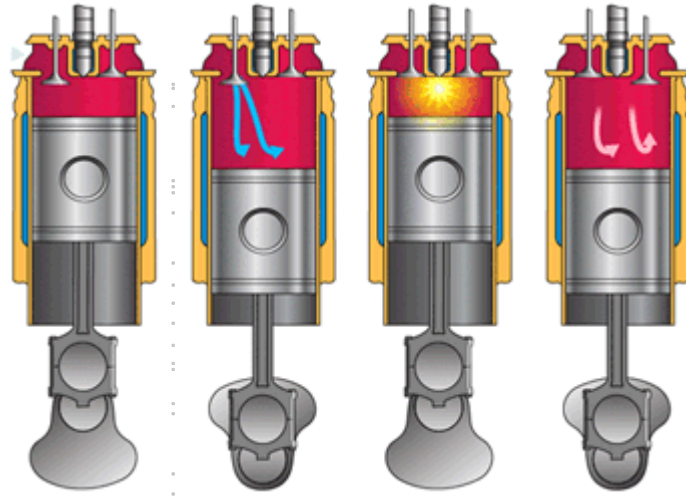


Piston Assembly

The following lesson and its accompanying demonstration aims to allow you to be successful on the job that is to follow.

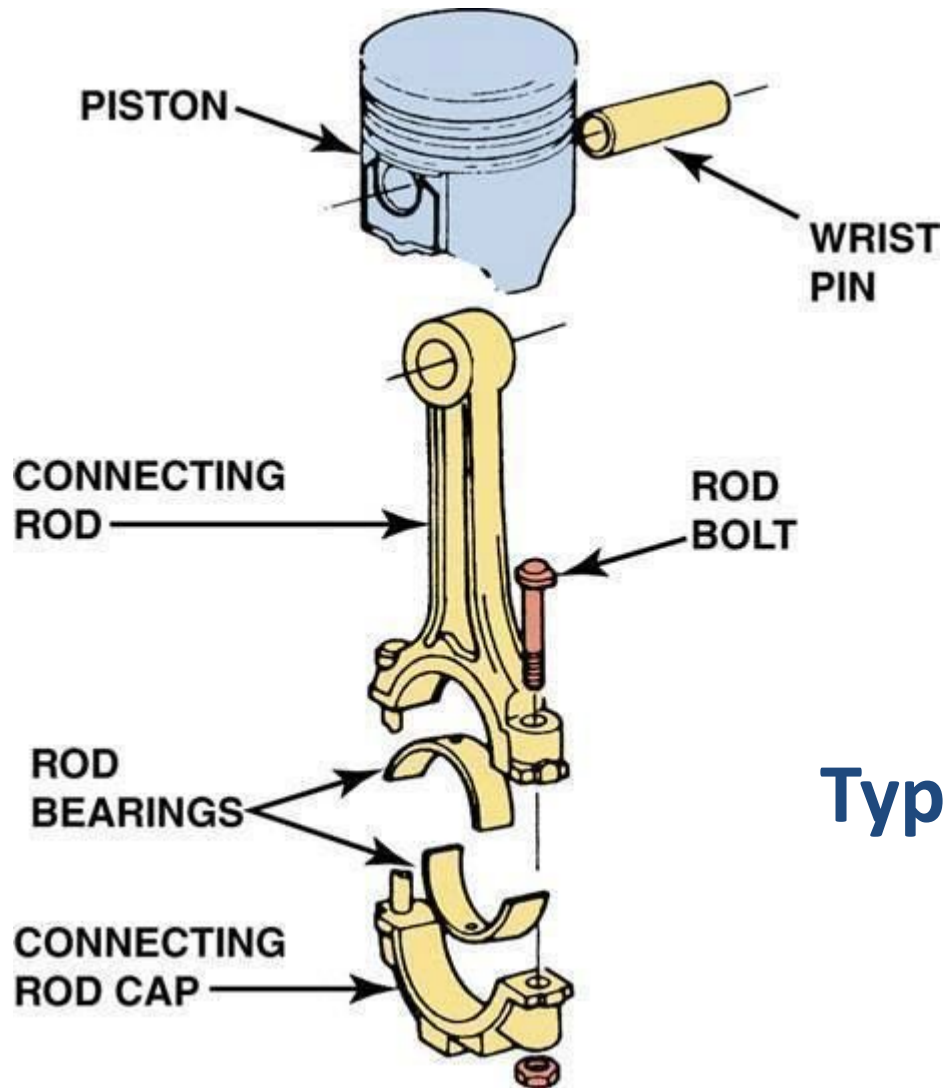


Piston Assembly – Removal & Replacement



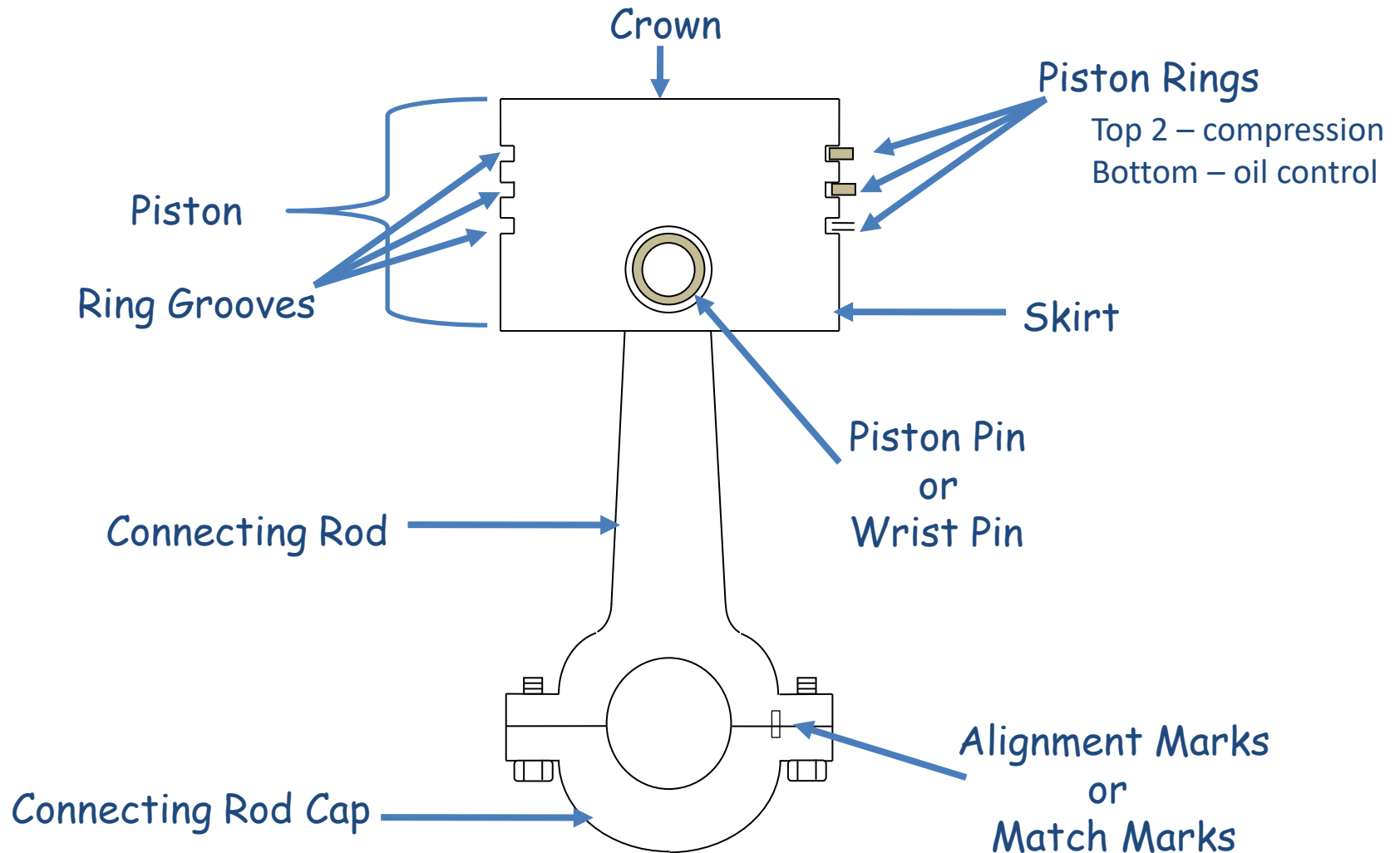
Identifying the Parts of the Piston Assembly

Piston Assembly



Typical Piston Assembly

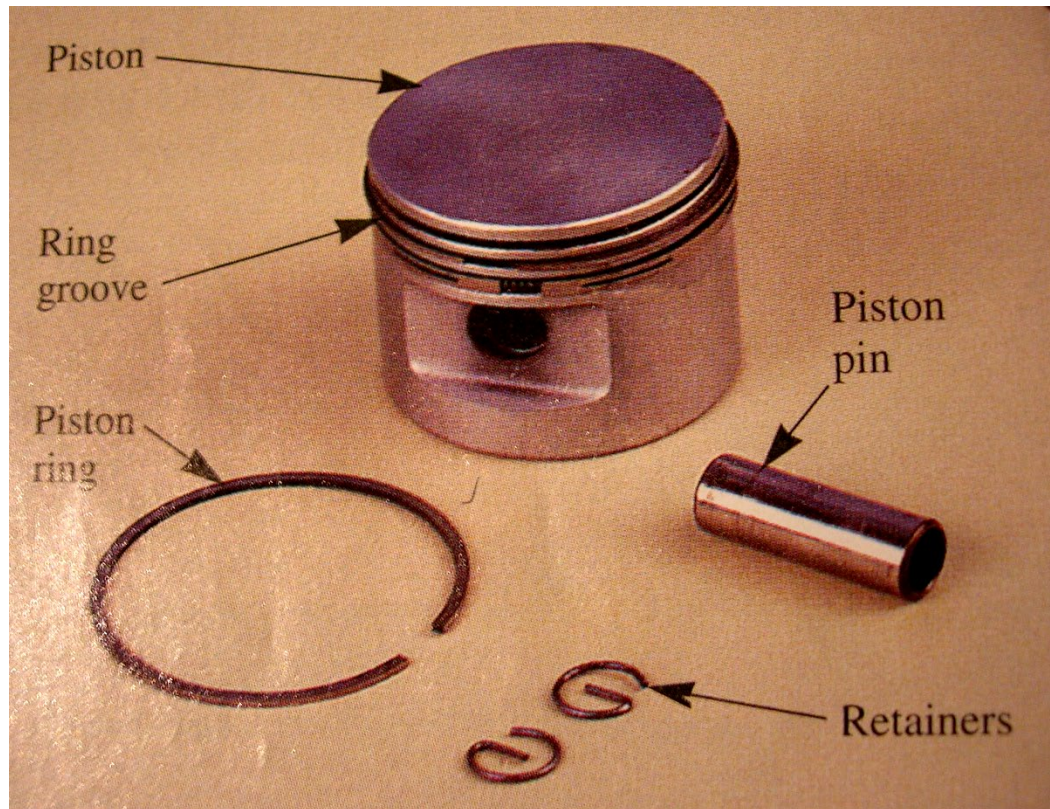
Piston Assembly



Parts of the Piston Assembly

Piston Assembly

Wrist Pin Retention



When piston pins are inserted they need to be held in place by fasteners that will not interfere with the pistons and cylinder wall.

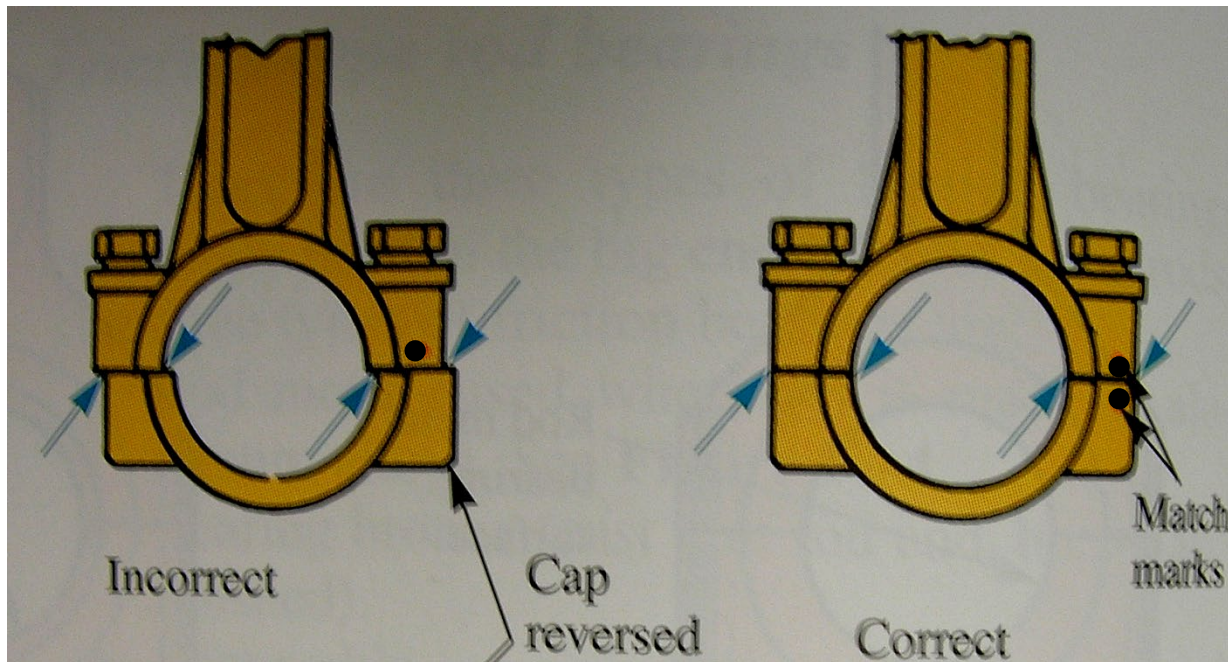
‘Retaining rings’ or ‘clips’ are a common method used.

Installing Connecting Rod Caps

Piston Assembly

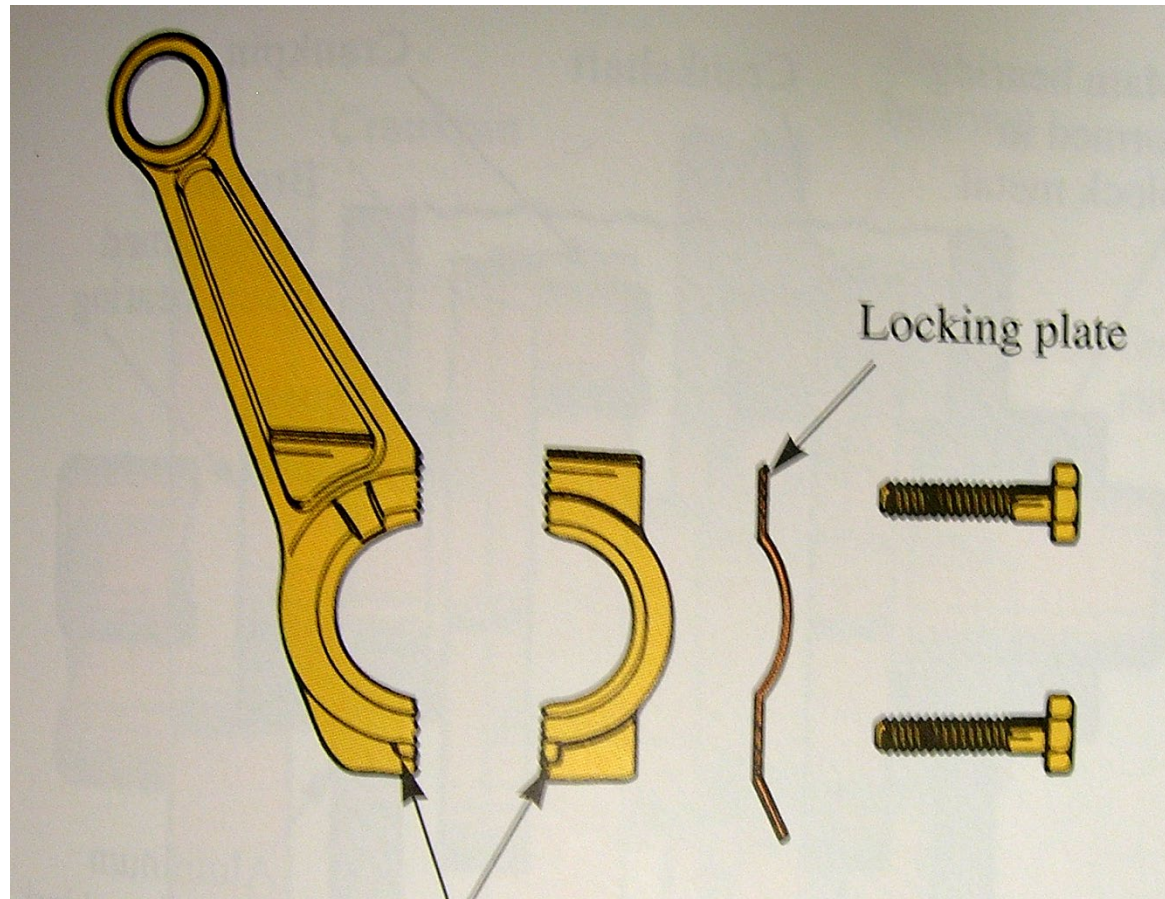
When assembling engines there are moments that if done wrong the engine will be destroyed!

The seemingly easy job of installing the connecting rod cap is one of these moments.



Piston Assembly

It's **really important** that the connecting rod fasteners never come undone as it would destroy the engine. Therefore, methods are often employed to help with this.



Your engine should have this... but it is most likely missing 😞

These bolts **need** to be torqued to 100inlbs

Other methods include the application of 'thread locking' liquids and wiring.

Piston Assembly

While we're inside the engine, we're going to look at its lubrication system.

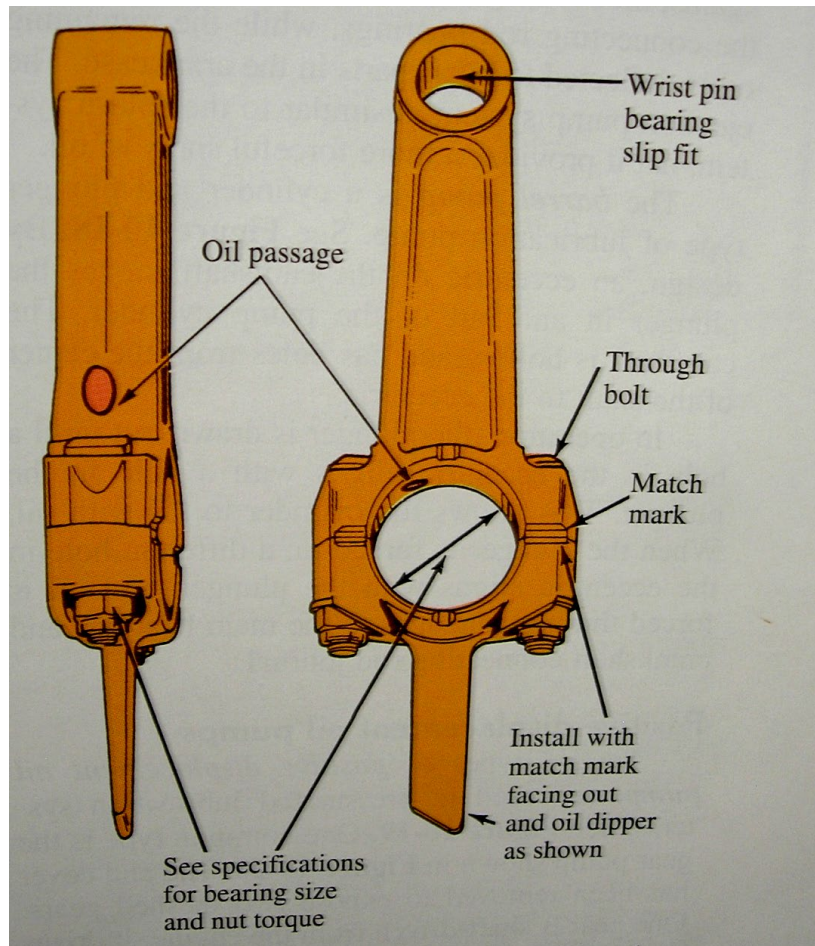
Why do engines need oil, what exactly does it do?



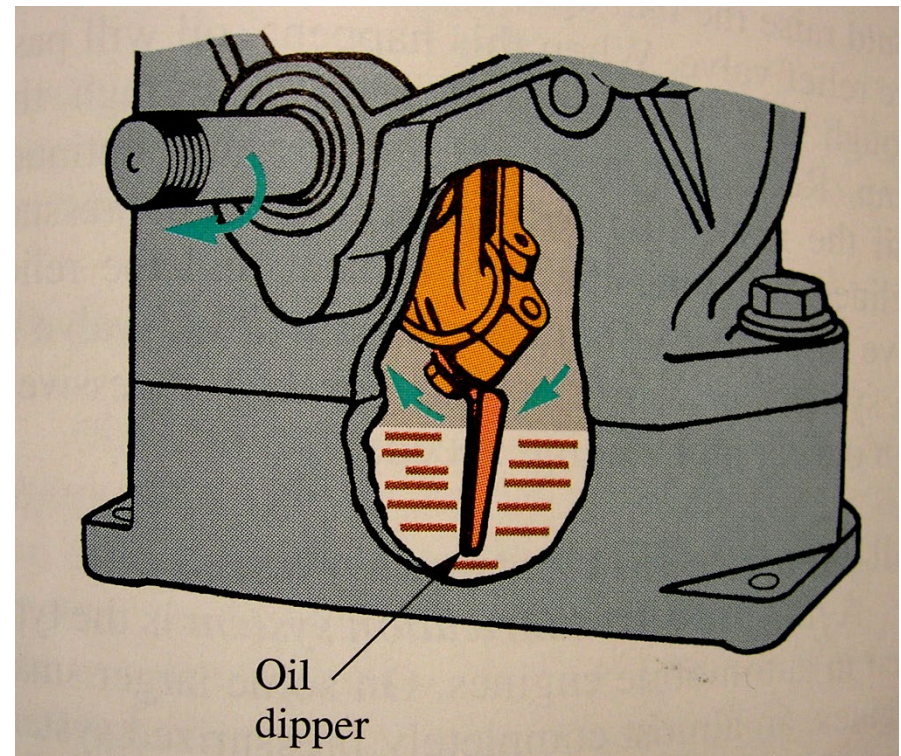
Engines need oil primarily to lubricate and cool the moving parts, reducing friction and wear, and preventing overheating



Methods of oil distribution – ‘Dip and Fling’



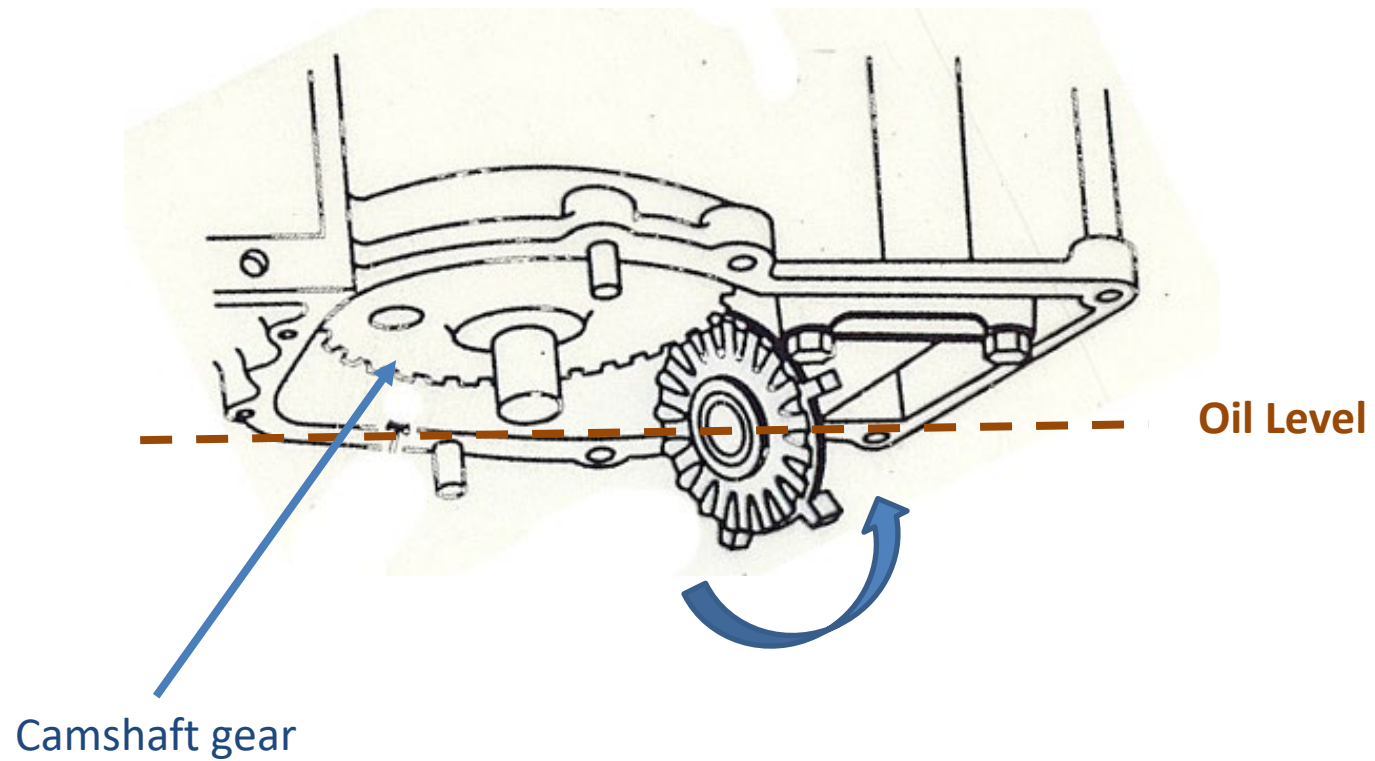
This is the one in the engines we are working on!



As the crankshaft rotates, the dipper plunges into the oil and flings it throughout the crankcase

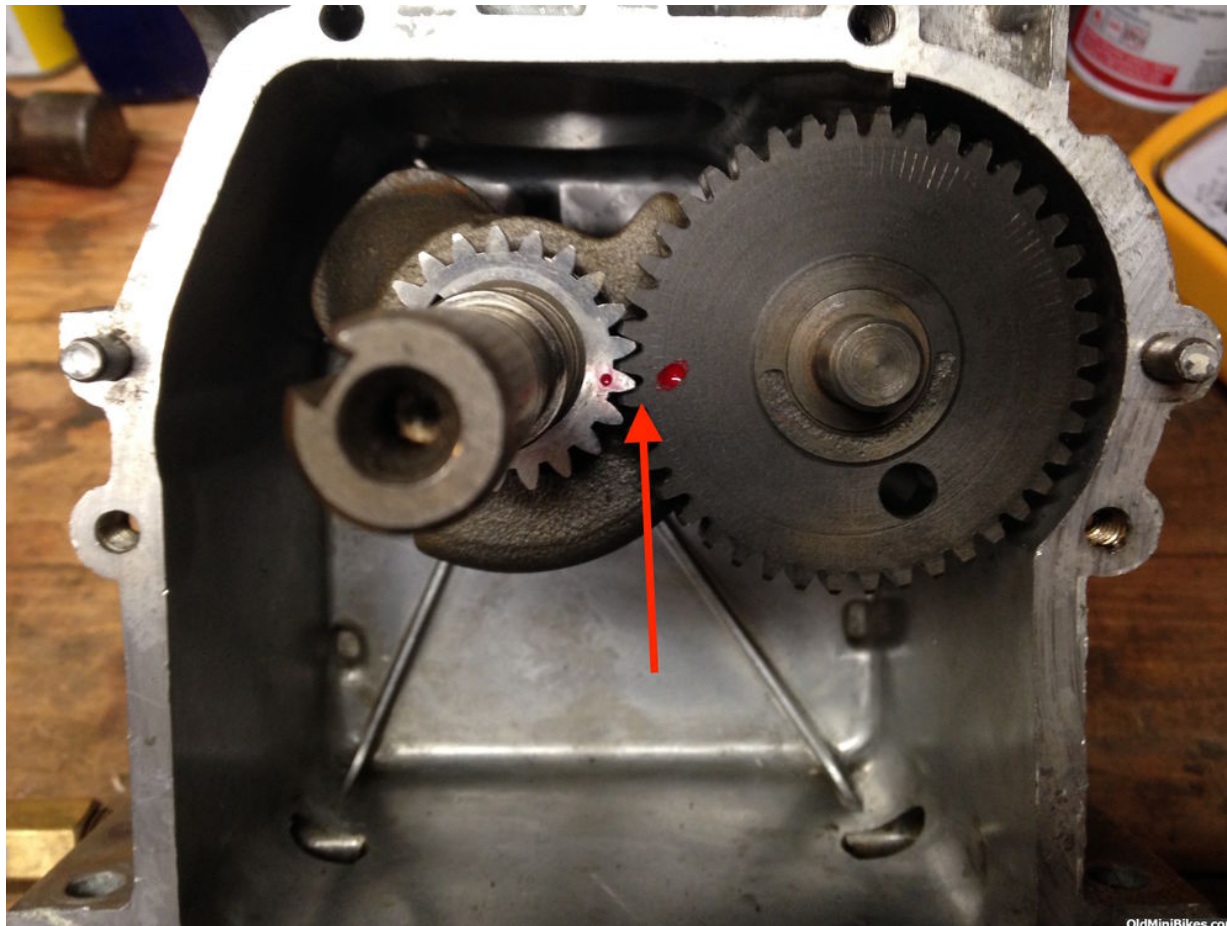
Piston Assembly

Methods of oil distribution – 'Oil slinger'



Piston Assembly

When you reassemble your engine make sure the timing marks on the crankshaft and camshaft line up otherwise your ignition will happen at the incorrect time.





- Has the Oil been removed?
- Use a Ziplock bag or plastic bin for parts!
- Take a picture of the timing marks on the crankshaft and camshaft
- Take a picture of the connecting rod & connecting rod cap BEFORE Removing
- Section 9 of the book
- Get signatures at steps, before moving on.