

Subject: Applied Technology

Year/Level: 13

Strand: 5	AT 13.5: Machines And Engines
Sub Strand	AT 13.5.1 Motorized Machines And Engines
Content Learning Outcome	AT 13.5.1.2 Demonstrate knowledge And understanding of parts, functions and operation of a four stroke engine.

LESSON NOTES

Chapter 5: Machines and Engines

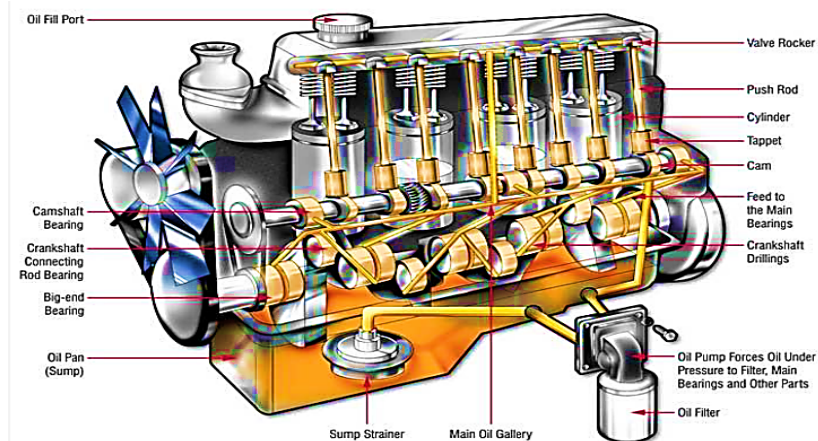
Continued from week 18 Lesson notes....

STRAND OUTCOME

After completing this strand students will be able to:

Identify and familiarize themselves with motorized machines and four stroke engines.

The basic lubrication oiling system



You drive your car every day, isn't it nice to know how does it work? There are the relevant details of how the combustion engine works. You may know about maintaining your car that is you have to change the Engine lubrication oils time to time. What you may not know is where the oil goes, what does it do? and why it needs to be changed time to time? The first task of oil in the engine is to keep the things oily so they could not get dry. Just think for a while if the eardrum-piercing sounds of metal pistons screeching up and down inside a dry cylinder. It will be so annoying, isn't it? There are pleasant effects of keeping the engine lubricated with automotive lubricants. There is little friction, which makes a sense that engine has to make little effort to keep it running. So, it means that it is able to skate on less fuel can run at the lower temperature. And this means that less wear and tear on the engine parts. Engine needs to fill with clean oil so it can perform well. Never get fooled by the term lubrication, sometimes when you go to the local quick lube work shop, they recommend you are supposed to have a lube job. That is certainly not an oil change. That absolutely means oiling the chassis and suspension system. None of them shares the oil with lubrication system in engine.

Lubrication system The Engine lubrication system is considered to give a flow to the clean oil at the accurate temperature, with an appropriate pressure to each part of the engine. The oil is sucked out into the pump from the sump, as a heart of the system, than forced between the oil filter and pressure is fed to the main bearings and also to the oil pressure gauge. The oil passes through the main bearings feed- holes into the drilled passages which is in the crankshaft and on to the bearings of the connecting rod. The bearings of the piston-pin and cylinder walls get lubricated oil which dispersed by the rotating crankshaft. By the lower ring in the piston the excess being scraped. Each camshaft bearing is fed by the main supply passage from a

