Identifying Engine Types

Four Stroke Cycle

Or

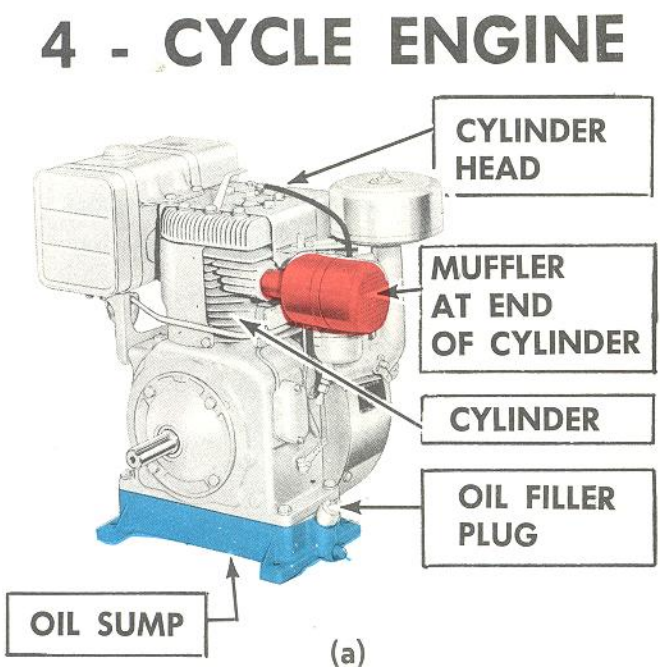
Two Stroke Cycle

Identifying Engine Types

- It is difficult to recognize a 4-stroke engine from a 2-stroke engine unless you understand the principal differences

- There are four methods you can use to tell if a particular engine is a four stroke cycle engine or a two stroke cycle engine and they are as follows;

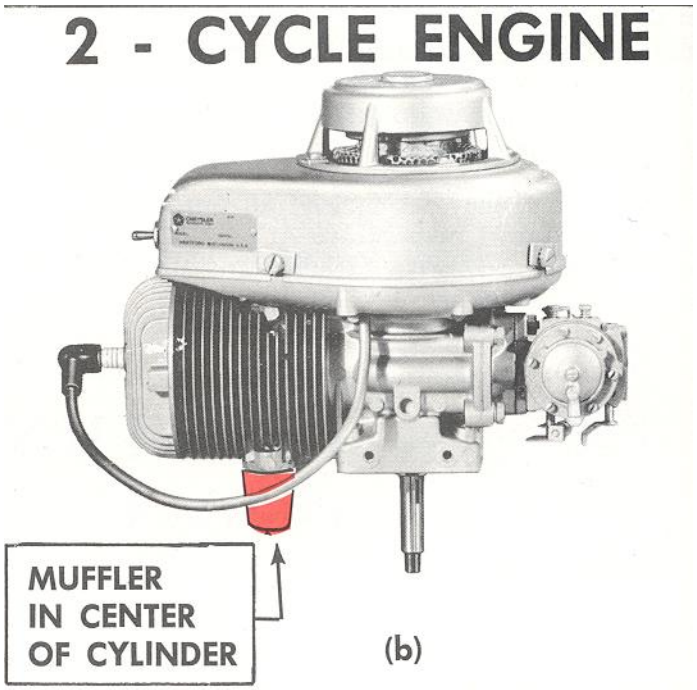
Identifying Engine Types



- One method is **<u>to check for an oil sump</u>** and oil filler cap or plug

- If yours has a sump and filler cap, it is a four stroke cycle engine. There is no oil sump on 2-cycle engines

Identifying Engine Types



- A second method is to **check for the location of the exhaust ports** or muffler
- On a 4-cycle engine the exhaust muffler connects at the cylinder-head end of the engine cylinder. The 2-cycle engine has an exhaust port almost midpoint on the cylinder

Identifying Engine Types

- A third method is to **check the information on the name plate on your engine**. It will probably not say 2-cycle or 4-cycle but there will be information on their regarding oil specifications, or fuel-and-oil specifications

- If either one gives the crankcase capacity, or a kind of crankcase oil, this applies only to 4-cycle engines. If the mixing oil & gas ratio is mentioned (ex. 50:1), this would identify the engine as a 2-cycle

Identifying Engine Types

- A fourth and final method in determining engine type is called the *compression method*;

    1. Disconnect spark plug to prevent engine from starting
    2. Crank the engine slowly by hand one full revolution. If resistance from compression is felt only once in the revolution then it is a 4-cycle. If resistance is felt twice it is a 2-cycle engine.

Comparing 4-Stroke & 2-Stroke Engines

- If you put a mixture of oil and gas in the oil sump of a 4-cycle engine, instead of crankcase oil, the engine will overheat because of lack of proper lubrication
- If you put gasoline in a 2-cycle engine without first mixing it with oil, the engine will overheat because of lack of lubrication. It will not run very long before the piston and bearings will overheat, score, and seize. Two cycle engines have a sealed crankcase but no oil sump.

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