ow do engines work?

When you start the engine, you bring to life a machine that harnesses the energy of burning gasoline and air to drive the car and operate all the accessories.

The cylinders are where the action is. A cylinder is a round hole in the cylinder block

In most four-cylinder and six-cylinder engines, the cylinders are set up in a straight line. In a V-8 engine, they are arraned in two rows, in "V" formation.

Inside each cylinder is a piston. There's a very small clearance between the piston and the cylinder - less than the thickness of this page.

To keep burning gas from escaping, piston rings fit into grooves around the piston and press against the cylinder.

At the top of the cylinder are two valves, which look and act like the metal

drain plug in a wash basin.

The intake valve opens to let a mixture of fuel and air into the cylinder, then closes as the piston moves upward, squeezing the mixture against the top of the cylinder.

The spark plug ignites the mixture and the burning gases expand, driving the piston downward to provide the power. Burned gases escape when the exhaust valve opens as the piston comes up.

The up-and-down motion of the piston must be converted to rotary motion to drive the car. When you ride a bicycle, the up-and-down movement of your leg is

changed to rotary motion by the pedals and sprocket

In an engine, the piston works a connecting rod. The lower end of the connecting rod fits on the crankshaft, which has one crank for each cylinder (one for each two cylinders in a V-8), lined up from front to rear.

All the power developed by the engine is transferred through the rotating crankshaft.

To prevent parts from wearing themselves out by rubbing against each other, the engine needs a lubrication system. Oil is stored in an oil pan.

The engine drives an oil pump, which forces oil through passages to the working parts. An oil filter screens out dirt and other foreign matter.

A modern engine is designed to last the life of your car, and it can, given reasonable care. The key to long life is proper lubrication. Engine oil contains detergents which pick up particles of soot and sludge and dirt and hold them in suspension.

If oil isn't changed on schedule, it becomes saturated with these impurities and theengine accumulates stick sludge or hard coatings of "varnish". Moving parts stick together and oil passages become clogged.

Be sure the oil and oil filter are changed at the intervals recommended in your car manual.

Automobile City Nissan dealer

Automobile City, a division of Fred Schuler, Inc., is a Nissan dealer and provides service on all types of Nissan automobiles.

With two locations at 1280 Sans Souci Highway and 206 Carey Ave., Wilkes-Barre, Automobile City provides both parts and service. In existence for 34

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