



Actual, unretouched photos of good and bad road-test pistons. Scored and fouled piston at left is result of badly contaminated oil due to infrequent changing. Oil filters are of great help in prolonging oil life

Lubrication

GOOD ENGINE lubrication isn't accomplished by merely adding a quart of oil now and then. Oil in the crankcase becomes contaminated with certain acids and mildly abrasive particles which must be removed at intervals.

An oil filter does not remove moisture, acid or gasoline. It will remove most solid contaminating and abrasive agents, such as

The deposit-free valve at left shows how clean the valves remain when oil is changed regularly. Dirty, fouled valves at right clearly show the difference



dust, metal and rust particles from the engine, gummy residues from leaded fuels, etc. However, even with an oil filter and a carburetor air cleaner, the oil should be changed at regular intervals, length of the intervals being determined by the operating habits of the driver, distances the car is driven regularly, season of the year and condition of the roads on which the car is operated most of the time.

One method often suggested for determining oil-change periods is to test the oil for contamination, especially acid content, at regular intervals over a period of time, and from this data work out an oil-changing schedule for both winter and summer.

A lubricating oil has to perform several separate jobs in protecting the engine from excessive wear. It must lubricate moving parts and reduce friction to a minimum. The oil also acts as a coolant in carrying off heat from the cylinders and the bearings. In addition, it seals engine compression by providing an oil film between the pistons and the cylinder walls. Some oils also act as cleansing agents by removing dirt and carbon from the working parts of the motor.

Always use a high-quality motor oil of the correct viscosity for the particular engine, selecting it according to the type of operation and season of the year. For best results, engine operating temperatures should never be lower than 140 deg. or more