

## Hints and Suggestions

### Flushing Out Cylinders with Kerosene

One thing we wish to impress upon you with particular force is the importance of keeping the inside of the cylinders clean. Cars are sometimes brought to the factory for lack of power, knocking, etc., when nothing at all is the matter except that the cylinders had received no attention. The cylinders and piston heads become coated with a thick deposit of carbon, and when this is removed the engine runs as smoothly and as quietly as when new. The temperature in the cylinders is at times approximately 1000 degrees Fahrenheit. If you use an unsuitable oil, this high temperature carbonizes and burns up the oil in the cylinders without giving sufficient lubrication. All cylinder oils contain a certain amount of carbon, and it is this carbon in the oil which forms a deposit in the cylinders. This deposit is bad for several reasons. It forms a deposit on the cylinders and reduces the efficiency of the cooling system. It also becomes incandescent and causes premature ignition of the charge. This is called pre-ignition. It also decreases the clearance in the cylinders and raises the compression, which also tends to pre-ignition.

The cylinders should never be allowed to carbonize to this extent and the remedy is simple. Remove the spark plugs from the cylinders and place the pistons at their outer end of the stroke. You will notice three small marks on top of the fly wheel. When these marks are directly on top, the engine is at its outer dead center and the pistons will be in proper position to scrape the inside of the cylinders. To do this, you should obtain a piece of round steel about one quarter of an inch in diameter and fourteen to sixteen inches long. Take it to a blacksmith shop and have one end flattened out and bent over at right angles and then filed into the shape of a small chisel resembling a small hoe. With this you can reach through the spark plug hole and carefully scrape the piston head and cylinder walls. In doing this, be careful to scrape thoroughly wherever it is possible to reach inside of the cylinder and remove as much of the scraped off deposit as you can.

After doing this to both cylinders, take out the pet cocks underneath the cylinders and thoroughly flush out the motor with kerosene, at the same time forcing out of the holes in the bottom of the cylinders as much of the scraped off deposit as possible. By taking out the pet cocks it will be much easier to remove this deposit than by trying to blow it out by simply opening the pet cocks. After you have removed all the deposit possible, replace the pet cocks and start the motor, immediately opening the pet cocks and allowing any deposit remaining to be blown out.

The frequency with which a cylinder should be cleaned will depend upon the amount of use a car receives. It will probably not be necessary to scrape them more than once a month, but if you wish to keep your car in absolutely the best running order, the cylinders should be flushed out with kerosene once or twice a week. By doing this often you will not allow a deposit of carbon to accumulate and also prevent this deposit from baking so hard that it is difficult to remove, and save yourself labor in the end.