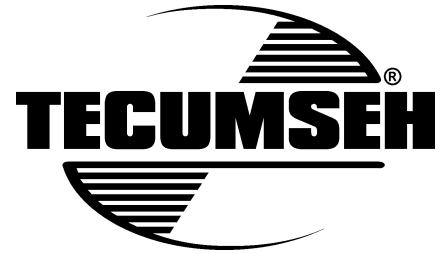


**SERVICE
BULLETIN
109**

INFORMATIONAL



ISSUED: September 1976
REVISED: June 1995
SUBJECT: Explaining Engine Neglect to Customers

For the most part, engine neglect in some customers' eyes is non-existent when major engine repairs have to be made and paid for. It is a necessity to convince the customer that poor maintenance and neglect are the reasons for his problems and that they could have been prevented.

Sometimes just showing the customer what you call common conditions, such as, scoring or discoloration of parts, does not seem very dramatic at this point. The customer wants to see something he understands, something simple yet something more convincing.

Using a magnet to check for metal transfer caused primarily by dirt particles going through the engine is a simple and convincing test to show neglect due to poor owner maintenance. Remove some carbon deposits from the cylinder head or spark plug and place these deposits on a piece of paper. By moving a magnet around under the paper the metal particles will be attracted to the magnet and move with it. It should be explained to the customer that when dirt goes through the engine and comes in contact with the valves, rings, cast iron cylinders, cylinder liners, and other parts it acts like sand paper and will erode or wear engine parts until they fail.

It should also be explained that dirt can get into the engine, for the most part, two ways. One, through the air filter system and two, through the fuel system. The air filter system is the easiest to visually inspect and maintain accordingly.

The fuel system requires more care, such as making sure all fuel containers are clean. In some cases this may require actual flushing or rinsing, because fine dirt particles often cannot be seen, especially in the bottom of a five gallon safety can. This is an extra step and not often practiced because of the inconvenience. Dirt can come from an unclean filler spout or funnel, maybe from a fuel cap that fell on the ground or from the area not cleaned around the filler neck. There are many ways dirt can get into the fuel system, but it's up to the customer to keep it out.

A complete explanation of the reason for engine failure and pointing out methods for preventing future problems can only add to our credibility when dealing with a skeptical customer.