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Spark Plugs

The Bible tells us---

"Where no counsel is, the people fail: but in the multitude of counsellors there is safety.

So to prevent you from failing Spark Plug reading here is a multitude of counsellors in picture form.

I got all this from a Free hand out I recieved from NGK Spark Plugs back in 1977. I think their Hot-but-OK plug pictures are a bit too hot for me. But who am I to nay say NGK? Enjoy!

Introduction

The appearance of the firing-end of a spark plug graphically reflects the condition of an engine, the suitability of the spark plug heat rating, and whether or not the carburetor and ignition timing are properly adjusted.

This pamphlet is intended to assist you in correctly choosing your spark plugs and determining the performance condition of your engine.

- ■Even plugs which present a good appearance, such as those shown in Figures (6 ~ (2), can quite often be covered with a lead deposit which causes misfiring.
- ■Wet plug firing-ends such as shown in Figures
- (1) Excessive choking.
- (2) Trouble within the ignition system.
- (3) Oil pumping past worn piston rings and valve guides.
- The causes of sooty plugs like those shown in Figures ②. ③ and ⑤ are usually the result of:
- A plug with a too high heat rating is being used and the plug firing-end does not reach

its self-cleaning temperature (above 400 450°C) due to light load conditions.

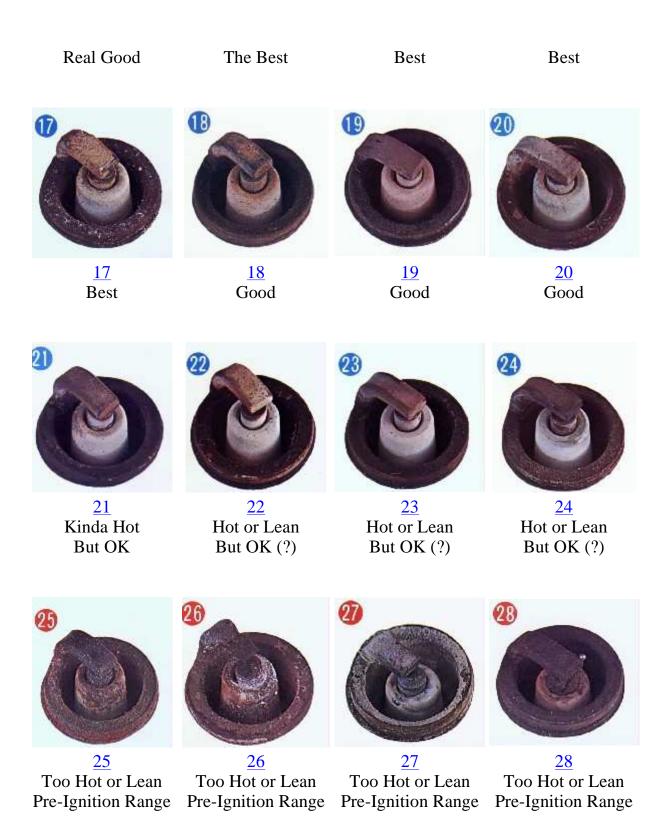
- (2) Use of a too rich air-fuel mixture of rich than 8:1~10:1
- (3) Trouble in the ignition system.
- (4) Improperly functioning cooling system resuing in excessive cooling.
- ■The firing-end burns illustrated in Figures ...
 and ...
 may be a result of:
- (1) Too low heat rating, permitting the plug exceed the highest limit for optimum opating temperature of over 850~1000°C d to excessively heavy load operations.
- (2) A too lean air fuel mixture.
- (3) Ignition timing too over advanced.
- (4) Abnormal combustion such as knocking.
- Cooling system trouble, which causes engitive overheating.
- ■Overheating conditions shown in Figures ② a
 ② are due to intense knocking and pre-igniti
 following situations identical to those in Figur
 ③ , ⑤ and ② where increased temperature of t
 spark plug firing end results in melting of t
 electrode.

[&]quot; (Proverbs 11:14)

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Too Hot or Lean Pre-Ignition Range

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go to.... go!

Placed On-Line by <u>Dan</u>.