Pops Shop

HOT PLUGS-COLD PLUGS

Hot Plugs

A hot plug is one in which the firing end of the insulator is maintained at a comparatively high temperature; this is accomplished by having a large area of the insulator exposed to the burning gases in the combustion chamber of the cylinder and therefore tends to vaporize any oil or liquid fuel that may come into contact with the insulator, thereby preventing the formation of carbon on the insulator. Hot plugs should be used for slow speed drivers, low compression engines, door to door delivery, extremely cold climates and oil pumping engines.

Cold Plugs

A cold plug is one having a small area of the insulator exposed to the burning gases in the combustion chamber and therefore a shorter heat path to the cooling water, thereby maintaining a lower temperature in the insulator. If cold plugs are used in low compression engines or oil pumping engines, the insulator does not become hot enough to prevent oil from accumulating and the plugs will foul. Cold plugs should be used for severe service, high speed driving, high compression, heavy load-long haul and extremely hot climate.

Above information taken from Ford Service Manual – subject No. 12405. Date unknown.

Ken's notes

Parade driving once or twice a year. Hodrodding at 60 mph once a week (Ken style). Tooling to the mall or a Saturday Tour with the group at 35 to 40 mph. Worn out engine that smokes and knocks. High compression head or standard Model A head. Recent rebuilt engine. Different kinds of driving under different conditions coupled with different engines create different amounts of heat in a Model A engine. Some of the heat generated by the firing of the spark plug is dissipated to the head, then to the water, through the shell of the spark plug.

The spark plug you are using in your engine can help either create or disperse the heat and in turn control the performance of your engine.

Spark Plugs come in different heat ranges. Chart below shows some of those plugs

Champion – hotter down to colder

W95D

W89 D

W16Y

W20

W18

W14

W10

W85N

W80N

Champion 3X and W18 listed as normal.

C16C discontinued in 1979 and replaced with the W16Y

Motorcraft

TT15 Same as W89D

TT10 Same as W14

TT8 Same as W14

TT4 Same as W10

Autolite

3076 Same as W14 and TT10

Chart compliments of Larry Brumfield and Fordbarn.com