





How to Read Spark Plugs to Diagnose Engine Troubles

 A close-up photograph of a spark plug with a light tan, grey-brown coating on the core nose, indicating normal wear.	<p>Normal</p> <p>This is how your plugs should look after they've been used for a few miles. Nice, grey-brown deposits, lightly coated core nose. Plugs are ideally suited to engine, engine probably in good condition.</p>
 A close-up photograph of a spark plug with a thick, light-grey, sandy deposit build-up on the core nose.	<p>Heavy deposits</p> <p>A build-up of heavy, light-grey sandy deposits. Often caused by worn valve guides, excessive use of upper cylinder lubricant, or idling for long periods.</p>
 A close-up photograph of a spark plug with a thick, dark, soot-like deposit on the core nose.	<p>Carbon fouling</p> <p>Dry, black, soot-like deposits. Caused by rich running. Check carburetor mixture settings, float level, choke operation and air filter.</p>
 A close-up photograph of a spark plug with a thick, dark, wet deposit on the core nose.	<p>Oil Fouling</p> <p>Wet deposits of oil. Caused by worn bores, piston rings or valve guides. Sometimes happens briefly during running-in period.</p>
 A close-up photograph of a spark plug with a glazed electrode and a very white core nose, indicating overheating.	<p>Overheated plug</p> <p>Electrodes look glazed; core nose very white; few deposits. Plug is overheating. Check plug temperature value, ignition timing, fuel octane rating (might be too low) and mixture setting (too lean). Rectify before piston rings break or valve faces burn.</p>



Damaged electrode

Electrodes have been burned away, core nose has burned, glazed appearance.
Pre-ignition. Check ignition timing and plug temperature value.



Cracked or broken core nose

Detonation or wrong way of setting electrode gap. Check ignition timing, cooling system, fuel mixture setting (too lean).



Lead glazing

Probably doesn't happen with unleaded fuel.
Plug insulator firing tip looks yellow or green/yellow and shiny.
Often caused by incorrect carburetor settings, excessive idling followed by sharp acceleration. Also check timing.



*Best internet source
of information and help
for old Ford tractors.*

www.ntractorclub.com