




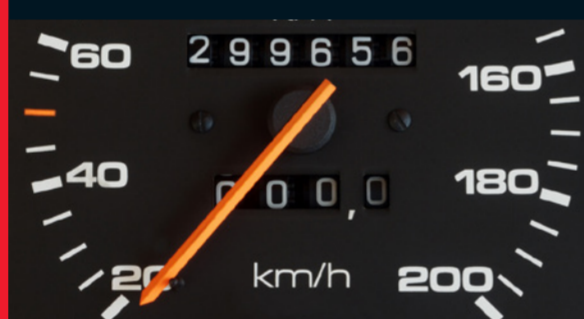
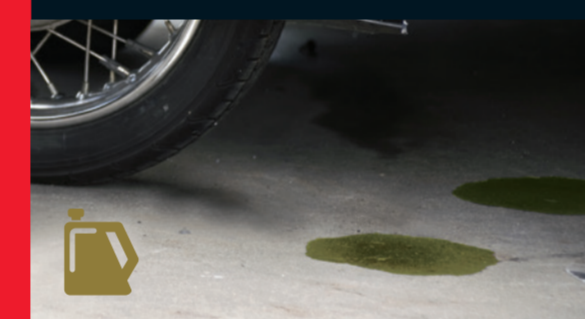




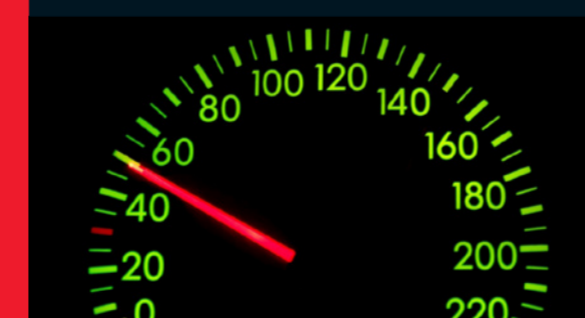





CHAMPION

CLEAN TO THE CORE

FILTER TROUBLE TRACER CHART

<p>Black exhaust smoke</p>  <p>Possible cause: Dirty air filter</p> <p>Solution: Replace air filter</p>	<p>Abrasive wear to engine components</p>  <p>Possible cause: Ingress of dirt via a broken hose, blocked filter or residual debris within the lubrication system</p> <p>Solution: Flush engine to remove any remaining debris and replace oil, air and fuel filters</p>	<p>Contamination of diesel</p>  <p>Possible cause: Petrol in diesel from mis-fueling</p> <p>Solution: Replace/repair injectors, pump, clean fuel system, replace fuel filter</p>	<p>Excessive fuel consumption</p>  <p>Possible cause: Dirty air filter</p> <p>Solution: Replace air filter Flush oil galleries, replace oil filter</p>	<p>Reduced performance of the air conditioning</p>  <p>Possible cause: Cabin filter is clogged with dirt and dust and reduces the air flow</p> <p>Solution: Replace the cabin filter</p>
<p>Hesitation</p>  <p>Possible cause:</p> <ul style="list-style-type: none"> • Dirty air filter • Water in petrol • Fuel filter clogged <p>Solution:</p> <ul style="list-style-type: none"> • Replace air filter • Drain fuel tank, replace fuel filter • Replace fuel filter 	<p>Leaking fuel filter/housing</p>  <p>Possible cause: Incorrect fitting</p> <p>Solution: Check fitment or replace fuel filter</p>	<p>Leaking oil filter/housing</p>  <p>Possible cause:</p> <ul style="list-style-type: none"> • Incorrect fitting • Oil filter seal <p>Solution:</p> <ul style="list-style-type: none"> • Check fitment or replace oil filter • Tighten or replace oil filter 	<p>Worn camshaft</p>  <p>Possible cause: Residual debris in oil galleries</p> <p>Solution: Flush oil galleries and replace oil filter, air filter</p>	<p>Fogged windows and reduced visibility</p>  <p>Possible cause: A dirty cabin filter reduces the performance of the A/C system</p> <p>Solution: Replace the cabin filter</p>
<p>Low oil pressure</p>  <p>Possible cause: Dirty oil + filter</p> <p>Solution: Replace oil & filter, flush oil galleries</p>	<p>Surging or misfiring</p>  <p>Possible cause: Fuel filter clogged</p> <p>Solution: Replace fuel filter</p>	<p>Scored bearing backs</p>  <p>Possible cause: Foreign material entering via air intake</p> <p>Solution: Replace oil and air filters, flush oil galleries</p>	<p>Loss of power</p>  <p>Possible cause:</p> <ul style="list-style-type: none"> • Fuel filter clogged • Dirty air filter <p>Solution:</p> <ul style="list-style-type: none"> • Replace fuel filter • Replace air filter • Flush oil galleries, replace oil filter 	<p>Irritation (eyes, airways) and allergic reactions</p>  <p>Possible cause: Dust, pollen and other pollutants seep into the cabin because the cabin filter is saturated</p> <p>Solution: Replace the cabin filter</p>

All the listed problems above are linked to filter issues. Other causes may be at the origin of these problems too.

