

# Indicators and Possible Causes for Common Diesel Engine Problems



Symptom	Possible Causes
Black Smoke (incorrect air to fuel ratio)	<ul style="list-style-type: none"><li>Faulty Injectors</li><li>Faulty Injector Pump</li><li>Bad Air Filter</li><li>Bad EGR Valve</li><li>Bad Turbocharger</li><li>Cool Operating Temperatures</li><li>Carbon Build-up</li><li>Poor or Incomplete Combustion</li></ul>
Blue Smoke (oil being burnt)	<ul style="list-style-type: none"><li>Worn Valve Guides or Seals</li><li>Wear in Power Assemblies</li><li>Problem with Oil Filter</li><li>Problem with Turbocharger</li></ul>
White Smoke (too much fuel or not enough heat)	<ul style="list-style-type: none"><li>Worn Out Injector</li><li>Incorrect Timing</li><li>Low Compression</li></ul>
Trouble Starting or Hard Starting	<ul style="list-style-type: none"><li>Cold Weather Affecting System</li><li>Glow Plug Issue</li><li>Low Compression</li><li>Fuel Delivery Issue</li><li>Battery Issue</li></ul>
Noise (knocking)	<ul style="list-style-type: none"><li>Compression Issues</li><li>Faulty Fuel Injectors</li><li>Cold Operating Temperatures</li><li>Timing Issues</li><li>Failed Bearings</li><li>Failed Wrist Pin Bushing or Wrist Pin</li></ul>



Lack of Power



Plugged Filters  
Fuel Contamination  
Low Compression  
Faulty Turbo Charger  
Failing Camshaft  
Bad Injectors  
Bad Fuel Pump

Faltering Engine



Fuel Contamination  
Cold Start

Excessive Oil Consumption



Engine Age  
Increased Demand  
Oil Viscosity  
Oil Change Intervals  
Leaking Oil  
Burning Oil  
Worn Valve Guides  
Failed or Worn Piston Rings  
Failed Turbo Seals

Engine Disruption or Failure  
(can be caused by many other factors as well)



Liner Cavitation  
Worn Bearings  
Overheating  
Contaminated Fuel  
Major System Failure within Engine