



ACN 108 344 903 ABN 81 108 344 903

## Free Smoke Test

We get asked a lot about what does this colour smoke means. So we put together our own smoke analyser

**Black Smoke:** It indicates poor and incomplete combustion of the diesel fuel.

- Block air filter or intake system
- Problem with fuel injector pump or injectors
- Engine timing out
- Low cylinder compression (i.e. cylinders, piston rings, ring grooves)
- Restricted induction system
- Excessive carbon build up in combustion and exhaust spaces
- Incorrect valve clearance
- Block or excessively dirty EGR Valve

## Blue Smoke: is an indication of oil being burnt.

- Low cylinder compression (i.e. cylinders, piston rings, ring grooves)
- Worn oil rings sticky oil rings when cold.
- Worn valve guides or seals
- Cylinder head pooling oil ,valve oil drains blocked /sludge and poor PVC valve, similar to valve stem seal problem called the "sludging" issue
- Cylinder glazed
- Incorrect grade of oil (e.g. oil too thin, and migrating past the rings)
- Fuel dilution in the oil (oil thinned out with diesel)
- High engine oil level

## White Smoke: occurs when raw diesel comes through the exhaust completely intact and unburned

- Faulty glow plugs
- Low engine cranking speed
- Problem with fuel injector pump or injectors even the lift pump
- Incorrect injection timing (could be a worn timing gear or damaged crankshaft keyway).
- Fuel air leak
- Low cylinder compression (i.e. cylinders, piston rings, ring grooves)
- Incorrect valve clearance
- Water contamination of the fuel water in combustion head gasket seep

We can also help to provide you with oil analyses too.





















