

Top Oil Lubricity Additive

Bardahl Top Oil is a fuel addition for both petrol and diesel engines. It lubricates and protects the upper part of the piston and keeps the fuel system clean. This fuel addition is recommended for very dry fuels such as E10 petrol, LPG, natural gas and (bio) diesels.

The problem

The hot combustion gases, in combination with the movement of the piston, ensure that the oil is scraped away from the piston wall, as it were. The gases also cause the formation of coal and varnish on the piston rings and cylinder wall.

This causes power loss and oil consumption. Similar precipitations can also form on valve guides and valves. This causes the valves to linger, performance to decrease and fuel consumption to increase.

Exhaust gases, whether or not via an exhaust gas circulation system, vaporize from the crankcase and end up in the intake manifold. They contaminate the inlet in such a way that there is a narrowing of the inlet channel. Through the inlet, the gases will be taken to the combustion process.

But not before they pass the inlet valve. It is significantly lower in temperature and acts as a kind of magnet for the highly polluting gases. On the inlet valve they leave their greasy parts, soot and dust. This valve is getting heavier and light height is more limited. This is the moment when valves can hit the piston and/or not close optimally, causing compression loss = power loss.

How it works

Bardahl Top Oil contains a high-quality ashless oil. It lubricates the piston rings, the cylinder wall and the valve guides. In addition to lubrication, **Bardahl Top Oil** softens the carbon and gum deposits. As a result, this deposit dissolves over time and can burn with the fuel.

The versatile detergents in **Bardahl Top Oil** dissolve the precipitations. This is done in the inlet channel and on the valves. A protective film is created on the metal.

This lubrication film prevents corrosion in the fuel tank, pipes and pump and on the inside of the carburetor.

Bardahl Top Oil also prevents ice formation in the carburetor.

Special ingredients in **Bardahl Top Oil** protect the PVC (Positive Crankcase Ventilation) valve, clean them.

Top Oil & E10 petrol

Euro 95 petrol consists of 10% ethanol and 90% fossil fuel. And that's why it's called E10 fuel.

Most modern cars can run on E10 petrol. But classic cars (young timers) have to be careful about this.

Problem

The main problem that E10 petrol poses is that there is a chance that certain rubber and plastic seals, retaining rings and gaskets will be affected.

But E10 gasoline is causing more problems.

E10 fuel is very hygroscopic (attracts water/ moisture) because ethanol is soluble in water. It is able to keep about 0.5% water in suspension. If this percentage is exceeded, the suspension stops. The water will separate from the ethanol/ gasoline mixture. As a result, irregular walking and poorer combustion.

This harmful water /ethanol mixture can cause it to affect sensitive materials. In addition, E10 fuel is about 2-3% less economical than the former Euro 95 with only 5% ethanol.

Solution

By optimising the lubrication properties in the Bardahl Polar plus formulation, the negative (acidic) influences of ethanol will be prevented preventively. This lubrication film will reach into the combustion chamber on all surfaces throughout the fuel system and do its job as an upper lubrication.

The unique Bardahl formulation can be used in all engines. From classic cars to cars equipped with catalysts & particulate filters that meet the strict EUR6 standard.

LPG & CNG

LPG / CNG are dry (sparse) fuels that have a higher combustion temperature than gasoline and diesel. The low lubrication capacity of these scrappy fuels can cause a lot of damage due to friction.

Bardahl Top Oil will eliminate the lack of lubrication. It provides a long-lasting protective film, which resists the higher operating temperatures.

Preventive use

Top Oil leaves a protective lubricating film in a mixing ratio of 1:1000 (25ml Top Oil on 25ltr fuel). The lubrication film protects the entire fuel circuit, from tank to combustion chamber, on piston rings and both on the inlet and outlet valves.

Bardahl Top Oil can be added directly to the fuel. In addition, it is also possible to use Top Oil in a lubrication kit "Topoiler" (connected to the intake manifold) if installed. The latter must be set between 1:500 and 1:1000.

PS: if a Lead Replacement is required "against the impact of the valves" we recommend using the Bardahl Lead Replacement refnr 1158.

Manual

Add Top Oil in a ratio of 1:1000 (25ml Top Oil per 25 ltrs of fuel) (capacity of 1 dosing head) to the fuel. The product is self-mixing in the tank. For optimal mixing: first add Top Oil and then refuel.

Test	Resultaten
Specific gravity	0.870 kg/ltr
Pourpoint	-37°C
Viscositeit 50°C	2.6
Viscositeit 100°C	1.3
Viscositeit Index	95
flash point c.o.c.	210°C
conradson max	0.05%
ashes	none

Part number 02405
Contents 500 ml

Part number 02455
Contents 5 liter

Part number 02482
Contents 25 ltrs

Part number 02486
Contents 60 ltrs

Part number 02492
Contents 210 ltrs