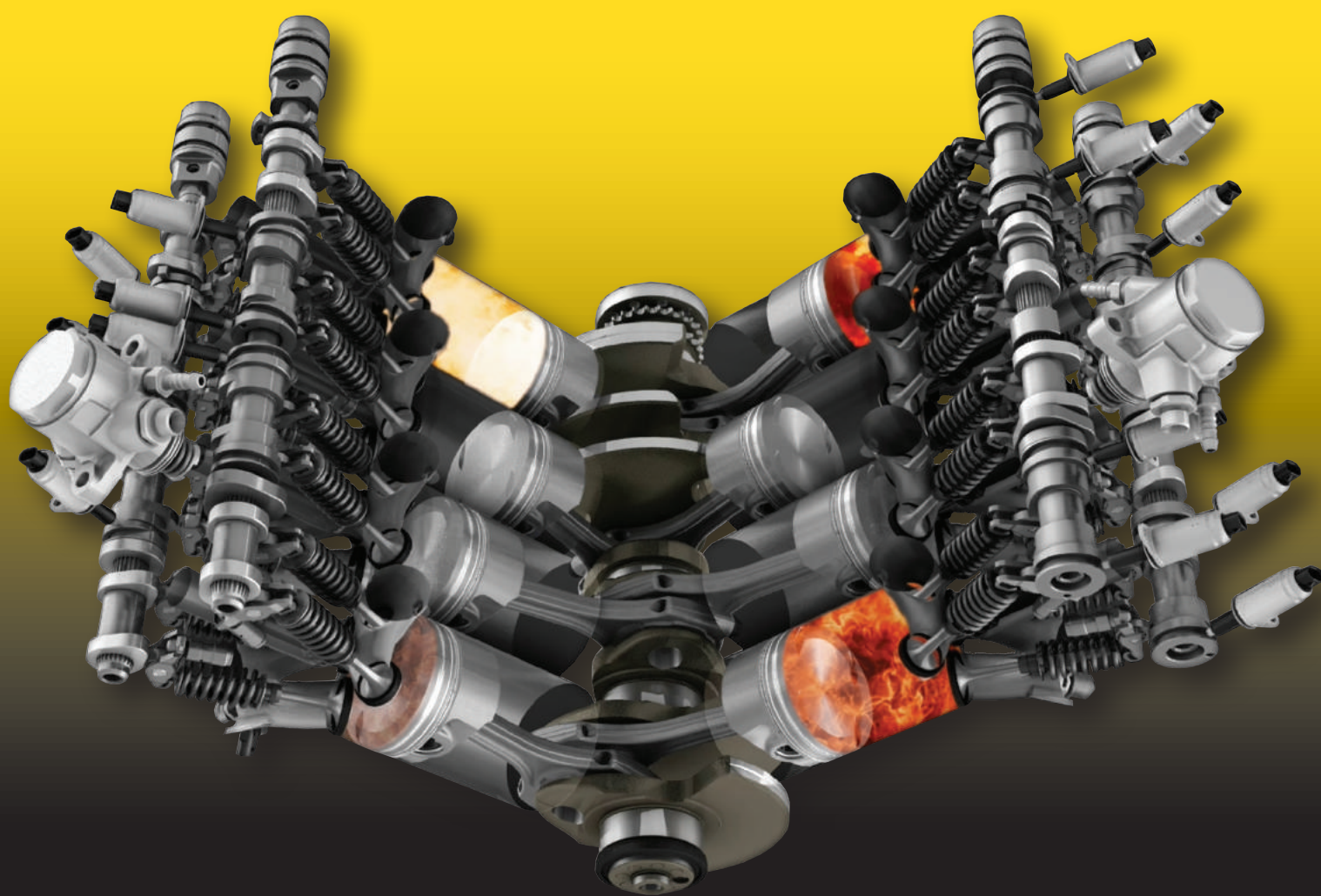




SINCE 1939



ADDITIVES

Innovation since 1939



Bardahl lubricants are still being developed on the basis of polar active ingredients. The created lubrication film is able to endure higher temperatures and pressures with the result that the engine can operate more efficiently with less wear and maintenance.

Bardahl has since the 50s participated in many international racing events such as the Formula 1, Indy 500, powerboat races, Paris-Dakar etc, using his own lubricants to be exact! This resulted in a huge amount of information about how Bardahl additives and oils behave in practice during extreme conditions. Bardahl used this information to further product development and advice to the customer.

Bardahl products are developed to operate even in the toughest conditions where other products do not do this anymore.

"We are convinced that, if our products are used in racing where our products are extremely tested, they definitely are suitable for use in "normal" traffic.

UNIQUE DISCOVERY

In 1939 the Norwegian Ole Bardahl made a unique discovery, which extended the boundaries of the lubricity of an oil substantially. He came to the conclusion that the molecular construction of motor oils could be modified with an additive, which would make it cling to moving parts of an engine. The so formed lubricating film prevents wear of the metal surfaces. Friction and wear are caused by irregularities of metal surfaces.

ADDITIVES

Bardahl has become World Famous because of its line oil- and fuel additives. In recent years, the use of various additives has become only more. Think of Shell V-Power, BP Ultimate Total Excellium etc. Use of additives in fuels (gasoline and diesel) will lead to lower consumption, better performance, cleaner combustion, less friction etc. This is the same case with oils; they contain more and more complex additives. Think of additives that extend the life of motor oil (LongLife motor oil), or additives which are added to generate fuel savings.

**When it comes to additives
we're still the **ONE** to beat.
They've got the scars to prove it.**

The scars you see are the result of 60 seconds of 190 kilograms pressure in FOUR BALL WEAR TEST machine, an industry accepted laboratory test to measure friction and wear tolerance of lubricants

Bardahl Asia Pacific Pte Ltd
www.bardahl-ap.com

BARDHAL
ADDITIVES AND LUBRICANTS

FOUR-BALL E.P. TEST

The Shell four-ball pressure tester can measure exactly the behavior of lubricants under extremely high pressure. During the test, steel balls are loaded under various loads and speeds. They are checked for friction and wear. The test goes on until the lubricating film is broken and the bullets melt together. Because of the unique Bardahl formula the possible loads are very high. The photo shows the result of this test.

Problems in practice

However, practice shows that the additives standard in the petrol, diesel and oil are not always sufficient. Below you can read some common, not in itself exceptional, practical situations of situations which lead often to engine failure.

Cars which are mostly used in the city will not reach the operating temperature. This creates moisture and contamination in motor oil. New technological assistance, to reduce the fuel consumption, as start - stop systems, plug-in hybrid cars makes engine failures more common. Moisture creates sludge in motor oil and results in more wear and reduced lubrication.

Taxi Cabs make many miles, but also have long pauses and then turn idle. Many idling results in an incomplete combustion. With as a result many deposits of soot. Soot is responsible for wear in the engine.

To avoid above problems and solve them Bardahl has more than 30 different oil-, fuel- and radiator additives. We know preventive additives (problem occurring) and curative additives (problem solving).

Preventive additives

These are additions that we recommend to avoid problems in the engine, fuel and cooling system etc, such as:

- A number of fuel additives (petrol and diesel) to clean and lubricate the fuel system and prevent failures and bad performing engines.
- A DPF Cleaner that cleans a slightly dirty particulate filter.
- Oil Booster + Turbo Protect ensures a permanent lubricating film (prevents metal to metal contact), protects and provides maximum cleaning by the oil

With Bardahl oil additives and fuel additives you have an alternative for your customer.



TEST TIMKENTESTER

This mobile tester shows the difference of wear on mechanical parts. Experience shows that Bardahl has increased the limit at which a lubricant still lubricates considerably.

Curative additives

Additionally Bardahl has an extensive range of additives you can use when there are already problems, such as:

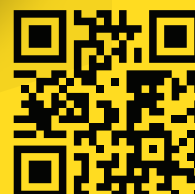
- A number of oil stop leak products which swells gaskets. Because the packing material will swell in many cases, the leakage will stop.
- B2 Oil Treatment is a oil tickener which ensures that the oil consumption decreases and improves compression.
- Hydraulic Valve Lifter Additive removes deposits of gum and varnish in the oil channels. Pollution in the intake valves and fuel system ensures low-performing engines and possible failures.
- With the DPF Professional Cleaning Kit the DPF can be cleaned in 3 steps, without disassembly of the particulate filter.



LOCATION BARDAHL THE NETHERLANDS

BARDAHL A WORLD WIDE BRAND

Bardahl is present on five continents and products are sold in almost 100 countries. This success is due to the unique discovery by Ole Bardahl, but also through continuous research in laboratories and racing. TMWe keep searching for improvements in existing products and development of new ones .



BARDAHL FOR A WORLD WITHOUT FRICTION.

DIESEL ADDITIVES



Diesel Treatment

Keeps the diesel system clean (this is a preventative addition). This product reduces the smoke formation and improves the emission, cleans the injectors without dismantling. When you have a very heavy polluted or bad functioning engine, use Common Rail Diesel Injector Cleaner for modern TDI, HDI CDI etc or Diesel System Cleaner if you have an older diesel.

Ref 13102 300 ml

Diesel System Cleaner*

This additive can be used both preventive and curative. Reduces smoke and improves emissions. Cleans injectors without dismantling. Do you have a modern TDI, CDI, HDI etc. use the Common Rail Diesel Injector Cleaner.

Ref 13201 300 ml

Common Rail Diesel Injector Cleaner*

One treatment with Common Rail Diesel Injector Cleaner will: 1) clean and protect the entire injection 2) reduce fuel consumption 3) increase acceleration 4) increase lubricity of the fuel and remove water (condensation) from the fuel. 5) reduce engine noise 6) reduce exhaust smoke. Common Rail Diesel Injector Cleaner (ref 13205) is particularly suitable for modern engines (TDI, HDI, CDI, etc.) Best advice: add every 5.000km - 10.000km 1 can.

Ref 13205 500 ml

Turbo Cleaner

A highly effective cleaner that cleans, without disassembling soot in the turbo. This soot is cause of the fact that the variable turbocharger vanes get stuck and the engine loses its ability. Features: 1) removes without disassembling soot deposits in the turbo; this is the reason that the variable turbo blades get stuck and the engine loses power. 2) prevents attack on the turbo blades caused by poor combustion of soot particles (unburned soot particles). 3) the product burns and destroys unburned soot particles in the turbocharger and the particulate filter. 4) prevents excessive fuel consumption and power loss. 5) extends the life and smooth operation of the turbocharger and the particulate filter. Suitable for all diesel engines with or without particulate filter.

Ref 3206 1 liter

DPF Cleaner*

Reduces the combustion temperature to destroy soot: soot normally is burned at temperatures above 600°C. By the time they are in the filter, the temperature has already dropped to 300-350°C. This leads to accumulation of unburnt particles on the filter. With this additive, the temperature is decreased to let the particles burn. As a result, the accumulated deposits from the filter are removed. Blockages are stopped due to the accumulation of soot. Prevents damage to the specific components which make the combustion of harmful particles possible. Prevents an increase in fuel consumption, loss of performance and replacement of expensive parts due to clogging of the particulate filter.

Burns and destroys soot in the particulate filter. Extends the life time and the proper functioning of the particulate filter. Best advice: we always recommend to measure the degree of contamination first. When there is a heavy contamination of more than 50% of the DPF and / or when the engine cannot reach full rpm range, we recommend professional cleaning with DPF Professional Cleaning Kit. See Chapter: Professional Cleaning.

Ref 1042B 1 liter

Diesel Conditioner (BDC)*

Keeps the diesel free from moisture and prevents bacteria growth. BDC lets the diesel lubricate better (important because the sulfur content has been decreased which ensured the good lubrication), will increase performan-

ce and finally, the fuel consumption drops up to 3%. Ideal for larger fuel tanks as those from trucks, boats and tractors and where diesel is stored for longer periods. Summer use: 0,5-liter per 1000 liters of diesel. In the winter: 2 liters per 1000 liters of diesel. The 100ml pack is a so-called 'one shot packaging'; 1 bottle of 100ml treats 100 liters of diesel. Also, a 1 liter container contains a dosing cap.

Ref 1200 100 ml, 1, 5, 25, 60, 210 liter

Diesel Anti Bacterie

Removes bacteria from diesel. Bacteria can clog the diesel filters and damage the injection of high pressure injections (Common Rail). Also provides long-term corrosion protection for tanks and pipes. Content: 0.5ltr. Recommended dosage: Diesel (cleaning of dirty diesel) 0:20 to 0:50 liters / 1000 liters of diesel // Diesel fuels (shock dosing) 0.5 - 1.0 l / 1000

Ref 2600 500 ml, 5 liter

Diesel Antifreeze

Overcomes cold starting problems and corrosion resulting from paraffin wax crystals, dirt or water in the diesel fuel. Cleans the fuel system and improves combustion.*

* The action of Bardahl Diesel Antifreeze is measured in several European diesel fuels. Working temperature can vary according to the origin or composition of the fuel.

Ref 2500 100 ml, 1, 5, 25, 60, 210 liter

Cetane Booster

The cetane rate has a large influence on the quality of the burning of the fuel. The higher the cetane rate, the faster the diesel will burn (the more inflammable the diesel).

Ref 12305 500 ml

AdBlue

A clear, non-toxic and high-purity urea solution (32.5%) in demineralized water. AdBlue is used in the SCR system (SCR stands for Selective Catalytic Reduction, an exhaust aftertreatment technology) and applied to reduce the emissions of nitrogen oxides from the exhaust of diesel vehicles.

Ref 81000 1,8 liter 1/2 gallon 'magnum bottle', 25, 200, 1000 liter

* Contributes to the reduction of fuel consumption and reducing CO2 emissions.

RADIATOR ADDITIVES



Radiator Stop Leak

This cooling system additive is a fast-acting sealant for leaking radiators. This "stop leak" is a tough and durable sealing. Also, you can use this "stop leak" preventive for future leaks. Radiator stop leak is miscible with all coolants and is often used preventively, because the pump is lubricated by the product. It is safe for aluminum engine blocks and is harmless to rubber hoses and gaskets.

Ref 14001 300ml, 1, 5, 25 liter

Radiator Fast Flush

This Radiator Flush cleans the entire cooling system of harmful deposits. It prevents overheating of the engine due to contamination of the cooling system. Finally, this product can be used safely in aluminum engine blocks.

Ref 14010 300ml, 1 liter

Anti-Rust & Waterpump Lubricant

Prevents formation of rust and corrosion in the cooling system. This product lubricates the waterpump, improves cooling and prevents sludge formation. This additive can be mixed with any type of coolant or antifreeze.

Ref 08117 US 500 ml

FUEL ADDITIVES

Fuel Treatment

This fuel additive ensures that fuel lines and carburetor remain clean and the white precipitate of today's gasoline does not affect anything (including the intake valves, float, needles and nozzles).

Ref 1069B 300ml

Fuel Injector Cleaner*

A highly concentrated fuel additive for cleaning the fuel injection. This fuel additive cleans pipes, pump, injectors, valves and combustion chamber. In addition, this additive reduces harmful emissions (HC, CO, NOx). Finally when using this fuel additive you will have; better (cold) starts and recovery of engine power.

Ref 12109 300ml

Concentrated Fuel Injector Cleaner*

One treatment will: 1) Clean and protect the entire injection system 2) Reduce fuel consumption 3) Increase acceleration 4) Increase lubricity of the fuel and remove water (condensation) from the fuel. 5) Reduce the engine noise 6) Reduce exhaust smoke. Concentrated Fuel Injector Cleaner (ref 12105) is particularly suitable for modern engines (FSI, GDI, etc.).

Ref 12105 500ml

Fuel Water Remover

Takes water from the fuel tank and ensures that it burns without any problems in the combustion chamber of the engine. Fuel Water Remover removes water from the fuel tank, filter and pipes and prevents corrosion, improves performance and decreases fuel consumption.

Ref 1082B 300 ml

Instead of Lead

Prevents stocking up valves and valve seats when using unleaded petrol in engines which actually need leaded gasoline. Instead of Lead protects motors, valves, pistons, etc. without being harmful to the environment. Instead of lead keeps the fuel stable. Use this Bardahl Lead Substitute every refueling. One bottle is enough for 250 liters of gasoline.

Ref 1158 250ml

Instead of Lead GOLD

Prevents stocking up valves and valve seats when using unleaded petrol in engines which actually need leaded gasoline. Instead of Lead protects motors, valves, pistons, etc. without being harmful to the environment. In addition, this Instead of Lead contains an octane booster that increases the octane rate up to 5 points. Use this Bardahl Lead Substitute every refueling. One bottle is enough for 80 liters of gasoline.

Ref 03010 US 237 ml

Fuel Stabilizer

If fuel is kept in the fuel tank, for example in a classic car during the winter period, the fuel ages. The volatile components in the fuel contribute to a good combustion. Fuel Stabilizer ensures these volatile components do not disappear. The fuel quality is guaranteed up to 24 months. In addition, the valves, seats are lubricated and the carburetor and fuel lines are cleaned. This fuel additive is not suitable for cars with a catalyst.

Ref 1164 250ml

E10 Fuel Improver

E10 fuel consists of 10% ethanol and 90% from fossil fuels. The biggest problem that E10 fuel entails is that there is a chance that rubber and plastic seals and gaskets are affected. In addition, E10 fuel is around 2-3% less efficient. When using Bardahl E10 Fuel Improver you can safely refuel E10 fuel. In addition, the following features are achieved:

Improves the E10 fuel quality Prevents ethanol fuel (E10) attack certain rubber and plastic seals and gaskets Keeps the fuel system clean Protects against corrosion Reduces fuel consumption Improves cold start

Ref 3222 250ml

Knock Out Octane Booster

This Knock Out Octane Booster is an easy to use additive that increases the octane rate of gasoline. The product does not contain lead or aniline and can be used in gasoline, with or without lead. This special Octane Booster is very often tested in racing. Increases the octane rate up to 7 points.

Ref 03011US 355ml



Octane Booster

Increases instantly the octane rate of petrol. Improves fuel consumption and increases power. Use of Bardahl Octane Booster increases gasoline octane rate and ensures a controlled, more uniform gasoline combustion, reducing knock from pre-ignition and detonation.

Ref 12301 300 ml

Ref 12302B 500 ml

Top Oil

An additive for gasoline and diesel fuels designed to lubricate and protect the engine's upper cylinder area while keeping the carburetor clean. Bardahl Top Oil also retards carburetor icing and works against fuel system corrosion.

Ref 02400, 500 ml, 5,25 and 60 liter

* Contributes to the reduction of fuel consumption and reducing CO2 emissions.

START HELP

Quick Start

Suitable for petrol- and diesel engines. Ensures immediate starting of engines. Protects the engine and the battery.

Ref 66104 400 ml

EGR Valve Cleaner

Removes carbon, gum and other deposits. Restores the circulation of air in the combustion chamber. Reduces fuel consumption. Suitable for engines with particulate filter and catalyst.

Ref 4326 400 ml

Fuel System Parts Cleaner

Dirty carburetors and fuel injection systems components are cleaned in an instant. This product removes gum and varnish in the fuel. It cleans the automatic choke, nozzles and needles and prevents irregular idling of the

engine. The aerosol package of this product has the great advantage that it is injected with force. Wherever the spray is used, the powerful solvent does its job.

Ref 60004 400 ml

Electrical Contact Cleaner

A highly efficient, general purpose cleaning solvent, ideal for the efficient and speedy removal of stains, coatings, printing inks or deposits of oil, grease or dirt. This product leaves no residue. It helps to eliminate energy loss and reduces voltage leakage caused by dirty connections

Ref 61004 400 ml



OIL ADDITIVES



B2 Oil Treatment



An oil stabilizer and thickener for (classics) or for engines with high mileage or high oil consumption. Ensures that oil is thickened, with the result that the oil seals better between piston and cylinder wall. The consequence of this is that the engine will consume less oil (due to the better sealing), and by this sealing or filling in fact, the compression will be better. The effect: more power and better response to the accelerator. It will also reduce the emission of black smoke (black indicates oil consumption), because less oil will seep to the combustion chambers along the pistons. Protects against wear.

Ref 01001 300 ml, 5 liter

Oil Booster + Turbo Protect



This oil additive provides additional lubrication of the engine and improves the cleaning effect of motoroil. An almost permanent lubricating film is formed between the metal surfaces. This oil additive protects against wear in dry, cold starts and prevents forming harmful deposits. This oil film ensures a better cold engine start, because this start is no longer dry and thus smoother. Once the engine is running there is an additional layer of oil over the oil from the crankcase and which results in a higher compression. Oil Booster + Turbo Protect prevents malfunctioning of hydraulic tappets. This additive can be used with an motor oil change or between two oil changes. The additional costs are therefore limited: instead of oil you add an additive. In particular for turbocharged engines, the cleaning effect of the oil is of great importance. Turbo problems arise mostly because the cleaning effect of the oil is no longer enough: pollution is the result. With Oil Booster + Turbo Protect the cleaning effect of the oil increases.

Ref 11109 300 ml

Full Metal



The most advanced oil additive, developed to answer the technological evolution of new engines and bring a solution to the latest mechanical requirements. Higher degrees of wear are becoming evident on mechanical parts due to increased friction, improved engine performance, greater torque and efficiency, and elevated operating temperatures. This together with longer drain intervals and the reduced capacity of oil in the crankcase, creates a demand for preventive (new cars) and curative (car with more than 40.000 km) anti wear protection. Full Metal contains 7 anti-wear properties: 1. Restores the seal between the piston and cylinder 2. Increases and restores compression ratios 3. Reduce excessive oil consumption 4. Improves smoothness, acceleration and throttle response 5. Increases the efficiency and power of the engine 6. Extends engine life and reduces engine wear at cold start up to 40% 7. Active for 25000km.

Ref 2007 400 ml

Hydraulic Valve Lifter Additive

Removes deposits (oil residues, carbon deposits, etc.) at the lifters and thus restores its functioning. Thanks to the special anti-wear film the hydraulic lifters, valves and camshaft are protected and the life span of the engine is extended. Suitable for all types of engine oil of both gasoline and diesel engines. How to use: Change the engine oil (always use a quality oil for example Bardahl, Shell, Castrol, etc.) and add a bottle Hydraulic Valve Lifter to the engine oil. Drive 20 km to allow the product to do its job. Then turn off the engine and start again after an hour. In many cases the problem is solved. If not, the contamination is more heavy. Repeat the action again. If the result is not satisfied, there is a mechanical problem.

Ref 1022B 300 ml

Manual Gear Box Additive

A high pressure oil additive for conventional gearboxes, steering and rear axles. This oil additive reduces friction, heat loss and noise. In addition, this oil additive provides easier shifting.

Ref 01604 125 ml

Power Steering Stop Leak

Stops leakages from the power steering (hardened or dried gaskets will get supple again) and may prevent potentially costly repairs. This additive is miscible with all types of oil as used in power steering or automatic transmissions that require a Dexron or similar type (except LHM).

Ref 1755 300 ml

Manual Gear Box Stop Leak

Brings oil gaskets and seals back in original condition and thereby reduces the loss of oil. This oil additive helps dried and hardened rubber and neoprene gaskets to become supple again. Also suitable for manual gearboxes which switch difficult.

Ref 1756 227 ml

Engine Stop Leak

Can be added to engine oils to stop or strongly reduce oil leakages, because of not well seals or rings. It is miscible with all types engine oils and makes seals of synthetic and nature rubber smooth.

Ref 11201 300 ml

Automatic Transmission Stop Leak

Makes gaskets smoothly thereby leaks can be stopped. Also, varnish deposits from the transmission components are removed. This oil additive contains components to remove oxidation deposits. Using this oil additive also ensures that the gearbox operates smoother. Bardahl Automatic Transmission Stop Leak is packed in a convenient, lockable, pour bottle.

Ref 06018 US 473 ml

No Smoke

An oil stabilizer with an extra high viscosity to stop excessive oil consumption. This additive allows a better seal between piston and cylinder wall, and a better compression. Also, this oil additive reduces the engine sound and exhaust fumes.

Ref 2116 US 500 ml

No Smoke + Stop Leak

An oil stabilizer with special additives that reduces exhaust smoke. Additionally this oil additive prevents engine leaks which are the result of shrunken or dried gaskets.

Ref 2117 US 437 ml

Engine Tune Up & Flush

Dissolves gum, varnish and sludge in the engine and removes all kinds of harmful deposits. In addition, this additive loosens sticking piston rings, valves, tappets and valve lifters and improves the power loss.

Ref 04018 US 326 ml

Power Steering Fluid

This mineral hydraulic fluid has a high viscosity index and is specially designed for continuous use. Bardahl Power Steering Fluid: reduces pump wear, prevents corrosion, prevents fluid leakage.

Ref 05712 US 355 ml

PROFESSIONAL CLEANING



EGR Cleaning Valve KIT*



This EGR Cleaning Kit cleans the intake pipe, valves and EGR valve. It will remove soot and restore idle speed. As a result of this; the fuel consumption will decrease and exhaust fumes contain less NOx.

Ref 9123B 300 ml flacon en 400 ml aerosol

DPF Professional Cleaning Kit*



A clogged particulate filter or an engine in an emergency operation? This 3-step Professional DPF Cleaning Kit cleans the DPF without dismantling. At the first step, use FAP1 to clean the particulate filter. The product is added via the supplied vial that is connected to the supply line of the differential pressure sensor. At the second step FAP2 will flush the system, through the same pipe. At step three, add the additive FAP3 to the fuel. Suitable for every type of engine equipped with a particulate filter.

Ref 91683 FAP 1,2 and 3

Pro Cleaner Diesel/Fuel*



These fuel cleaners will remove all deposits (varnish, carbon residue, etc.) in and around the injection, the injectors, combustion chamber and valves. These additives have been specially developed for use in the professional cleaning machine and are suitable for all types of gasoline and diesel engines with or without turbo, with or without catalytic converter and particulate filter. After this treatment the fuel system is completely cleaned the engine can work more efficiently. With as noticeable results; an improvement of engine performance, reduction of emissions of harmful substances and a reduction in the fuel consumption. The entire cleaning helps engine parts last longer. The cleaning process can be monitored by means of OBD software. This also gives the possibility to show the customer the result of the cleaning. The cleaning machine is equipped with an automatic stop system (with too much / too little pressure, if the cleaning process is finished, etc. the cleaning process stops automatically).

Ref 1036 1 liter (petrol)
Ref 1037 1 liter (diesel)

Supertune*

This fuel additive is the answer to many common engine contaminations. This 1-2-3 kit is a good alternative for replacing (often expensive) parts. Only the air filter has to be removed when using Supertune. You also need the Vacumatic adapter to make step 3 possible.

Ref 93000 3 pieces
Ref 00077 vacumatic adapter

* Contributes to the reduction of fuel consumption and reducing CO2 emissions.



NOTE:

Always read the instructions on the label before you use the product.
Do not use more than prescribed times; this can have a detrimental effect.

CO2 REDUCTION

WHAT HAPPENS DURING THE COMBUSTION IN THE ENGINE?

When air and fuel are mixed and burned in the engine, carbon, hydrogen and oxygen, CO2 (carbon dioxide) and water are formed. The CO2 emissions and fuel consumption are directly related: when the fuel consumption goes down by 1% the CO2 emission goes down by the same percentage.

Conclusion:

Use of Bardahl fuel additives results in less CO2.



ENVIRONMENT

The probability of oil spills on floors such as garages and workshops is real. Bardahl has two products to clean quickly and effectively oil spills. Bardahl produces granules; these have a high absorption capacity and are recyclable. In addition, Bardahl has oil absorbent cloths that can absorb up to 1.4 liters per cloth.



**FOR A WORLD WITHOUT FRICTION
SINCE 1939**

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The Netherlands

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You may also be interested in our other products.

The following brochures are available:

Lubricants brochure	Car care/ Body repair brochure	Technical lubricants brochure
Agricultural brochure	Automotive Classic brochure	Food brochure Nautic brochure