

# **Oil Booster**

This was the first time the renowned research engineers at the world-famous YORK Research Laboratory in Stanford, Connecticut, said they had tried America's best-known oil additive. These technicians subjected Bardahl to the most accurate laboratory tests for 180 days.

**Result: reduction of engine wear from 10% to 40%.** But they weren't the only ones who noticed this. In June 1978, EG & G Automotive Research, Inc. subjected Bardahl to a series of so-called Sequence IIID tests to measure the anti-wear and oil oxidation benefits of this product when added to a quality engine oil. **Result: wear reduction of 61.5% and 12% less oil oxidation**. The Petroleum Institute (API) came up with results of wear reduction of **47% and start wear reduction of 77%.** 

# Conclusion

All in all, results that don't lie. Together with the numerous smaller tests and the findings of millions of motorists around the world, they prove beyond doubt that Bardahl reduces friction in the engine and therefore naturally also shows significantly lower fuel consumption. In the now more than 60 years, Bardahl has proven his qualities.

## Friction

In all engines, both petrol and diesel engines, wear is often the cause of machine failure and the main cause of wear is friction. This is because all the metal surfaces rubbing over each other, however smooth they may seem, for the naked eye, actually have many microscopic peaks and valleys, with the peaks of one surface running into the peaks of the other. The actual contact area is very small and the pressure here and there is very high. This can cause temperatures of up to ., which cause the metal to soften and expand. In short, this is friction.1000°C

It is now the job of the lubricating oil to keep these surfaces sliding along each other separate. The lubricating oil must not now be squeezed or burned by the high pressures and temperatures; the oil must remain in place and lubricate.

# Wear

Tests have shown that approximately 80% of all engine wear has arisen during and immediately after starting. It is known that even the best engine oil at standstill, after some time, sinks back into the crankcase and does not leave a protective lubricating film on the engine parts. If the ignition key is then turned over to start, there will be no lubrication on the various vital engine parts, such as camshaft, piston rings, piston rings, crankshaft, etc.

During these first revolutions, metal surfaces rub together without a protected layer of oil. This has very high wear and effect and may cause engine failure sooner or later. Very high wear and tear also occurs during the many city traffic and traffic jams on country roads, not to mention the extra loads on long journeys and mountain routes.

#### BARDAHL

**Bardahl Oil Booster** ensures that a lubricating film is always left on the engine parts; even after a very long standstill. From the first revolution of the engine, all moving engine parts are lubricated with an unbreakable oil film.

An oil film that can tolerate temperatures and pressures that are many times higher than those of normal engine oils.



## **Oil oxidation**

**Bardahl Oil Booster** contains special oxidation inhibitors to improve the oxidation stability of the oil to which it is added. These oxidation inhibitors slow down the thickening of the oil and reduce that formation of solid precipitations such as gum and varnish. It is mainly new engines that have to operate under harsh conditions, which need this extra stabilizing factor. Because Bardahl prevents the formation of harmful precipitations and relieves the engine of existing precipitations, the wear is reduced and thus the service life is extended.

**Bardahl Oil Booster** also contains certain components to neutralize the acids, which occur during combustion and thus prevent additional wear due to corrosion. Bardahl's special rust inhibiators and highly adhesive lubricating film protect against rusting of existing acids. Each internal combustion engine forms water during the combustion process. This water largely disappears through the exhaust system, a small part comes along with the other contaminants in the oil. This water forms an acid in the crankcase. This acid affects the engine parts and forms corrosion and rust.

#### Action

Adding Bardahl to the engine oil increases the lubrication properties of the oil. Bardahl's exclusive "polar organic" formula provides a tough lubricating layer, which adheres to the metal, does not sink back into the crankcase and is not squeezed away by high pressures or burned away by high temperatures or gases. This reduces the wear of vital engine parts.

The result is evidenced by improved combustion and higher performance.

#### **Fuel economy**

Years ago, people didn't have to worry so much about saving money on energy; petrol or electricity was cheap. After the huge increase in fuel prices, every effort has been made to get more kilometres out of a litre of petrol. However, this only works if the engine is in perfect condition, which requires special attention to the lubrication.

#### Especially for the turbo.

Critical point is still the lubrication of turbos. Longer refresh times, oil change every other year: this still applies to a lot of models. The quality of the oil is slowly deteriorating, which is not a bad thing for most engine parts. However, the quality of the lubrication of the turbo decreases. The risk of oxidation of lubricating oil increases including the deposition of resin (gum), lacquer and cabbage.

The turbo is a vulnerable engine part, optimal lubrication for that is crucial. Extremely high speeds require proper and good lubrication on all engines, and certainly those are equipped with turbo. Problems often arise with high loads of the engines. Not only with solid driving, going far in the revs, but certainly also in the mountains with or without caravan. These are just a few examples that cause thermal loads to increase sharply.

It is recommended to let the engine and especially the turbo cool down for a while after a ride by idling it for a minute. In practice, however, this often does not happen. However, these are the moments when a turbo gets tough. High temperatures mean oil oxidation, which reduces lubrication and protection of the bearings.

#### Manual

Use Oil Booster between 2 oil changes instead of refilling oil. This means a strong improvement in lubrication of your turbo, crankshaft, camshaft and hydraulic valve thrusters.

#### Part number 11109

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**PRODUCT INFORMATION** 



| Contents    | 300 ml   |
|-------------|----------|
| Part number | 11155    |
| Contents    | 5 liter  |
| Part number | 11182    |
| Contents    | 25 liter |

**PRODUCT INFORMATION** 



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