

Motor-Innenkonservierer (Engine Internal Preservative) (technical)

Atmospheric effects on metals alter their original surface and can lead to the formation of rust and the surface's complete destruction etc. During this process, known as corrosion, chemical reactions take place at a rate which is largely determined by the condition of the metal, its surface treatment and various electrochemical processes.

Protecting engines from corrosion while they are running is relatively easy since high-quality fuels and oils provide sufficient protection to components against attack from the atmosphere and harmful effects from the combustion.

During the storage of, for example, boat engines over long periods (winter storage) it is vitally important to take special steps to protect the boat engines from corrosion i.e. to preserve them. Preservation consists of providing reliable means of protection using suitable materials and applications methods for all components which are in contact with fuel and oil and which are in danger of corroding.

In practice, various methods of preservation and products are used and applied which in some cases are technically out-dated and cannot guarantee optimum corrosion protection.

Years of experience and numerous tests in the laboratory and on the test bench as well as tests which have been carried out by research institutes have shown that the optimum engine protection can be achieved by using LM fuel additives (OK or DK) and LM engine oils.

The following application methods guarantee cost-effective and reliable engine preservation for inboard engines:

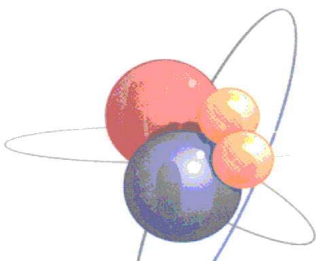
- a) Engine oil
- b) Fuel system/mixture preparation
- c) Engine Internal Preservative

for a) Drain conventional engine oil while warm and fill with LM Engine Oil.

for b) In relation to the amount of fuel in the tank, add 1 vol. % "LM mtx Petrol Additive" or "LM Super Diesel Additive" to the fuel depending on the type of engine.
Run the engine at high revs for about 10 minutes and then open the throttle to maximum and switch off the ignition. Keep the throttle fully open until the engine has stopped completely. Seal off the intake pipe and exhaust with waterproof paper.

for c) Four-stroke engines (petrol and diesel engines)
Remove spark plugs, injectors or glow plugs and spray Engine Internal Preservative into the cylinder for 5-10 seconds (depending on the size of engine). Turn the engine by hand or via the starter and replace the spark plugs, injectors or glow plugs.

.../2



Motor-Innenkonservierer (Engine Internal Preservative) (technical)

The methods of preservation described are simple to use and can be carried out as part of the measures for winter storage.

The covers to the intake pipe and exhaust are removed when the engine is re-commissioned. The engine can be started and lengthy de-preservation work is not necessary.

For reliable protection of all external components of the entire inboard engine in general and during winter storage in particular, all components must be sprayed with Boat Multi-Spray. The clear yellowish protective film guarantees reliable long-term protection until re-commissioning and additionally gives all components a pleasing appearance.

Part no. 1420

Application Engineering

TI 01/02/01

Our information is based on thorough research and may be considered reliable. It cannot however be treated as binding.

