



Problem	Recommended product	Functional characteristics/Application
<ul style="list-style-type: none"> Engine leaks oil from various seals Leaks from valve stem seals (Exhaust emits blue smoke) 		Pro-Line Oil Loss Stop Description: To regenerate seals which have lost their sealing ability over the years, add LIQUI MOLY Oil Loss Stop to the motor oil when a leak occurs. This regenerates the seals and improves the viscosity index of the oil.
<ul style="list-style-type: none"> Loss of compression due to piston rings seizing up Stubborn contaminants in oil circuit 		Pro-Line Engine Flush Description: This highly concentrated cleaning additive removes even stubborn deposits on the piston rings and in the oil system, allowing the engine to run smoothly again. Handy hint: This will allow fresh motor oil to be fully effective.
<ul style="list-style-type: none"> The engine is noisy and/or runs unevenly Increase in fuel consumption 		Pro-Line Engine Wear Protection Description: This additive reduces the friction between the bearing points, allowing for significantly quieter running.
<ul style="list-style-type: none"> Loss of compression due to excessive wear 		Pro-Line Visco-Plus + Pro-Line Engine Wear Protection Description: Add Visco-Plus + Engine Wear Protection to compensate for wear and/or minimize future wear between the piston rings and cylinder walls. These additives improve the sealant and wear protection properties of the motor oil.
<ul style="list-style-type: none"> High wear at the shaft of the turbocharger due to insufficient lubrication during the initial commissioning 		Pro-Line Turbocharger Additive Description: Used for the initial filling of new turbochargers in order to protect them against dry running and damage caused by lack of oil after a change in the running-in phase. Instructions for use: The oil intake passage of the turbocharger is filled to the brim with Pro-Line Turbocharger Additive before the oil supply line is connected.

<ul style="list-style-type: none"> Difficult to shift gear Noisy transmission/bearings 		Pro-Line Gear Oil Additive Description: LIQUI MOLY Gear Oil Additive smoothes the surfaces of synchronizers, which in turn significantly improves the gear shift action. To minimize noise and further wear, we recommend LIQUI MOLY Gear Oil Additive.
<ul style="list-style-type: none"> Transmission leaks oil from various seals 		Pro-Line Gear Oil Leak Stop Description: To regenerate seals which have lost their sealing ability over the years, add LIQUI MOLY Gear Oil Leak Stop, which regenerates the seals and improves the viscosity index of the oil.

<ul style="list-style-type: none"> Engine overheats Deposits in cooling circuit Heating does not work 		Pro-Line Radiator Cleaner Description: The deposits which reduce the cooling performance are loosened by the radiator cleaner, holding suspension, and then flushed out. Handy hint: To avoid long-term damage from deposits in the cooling circuit, use in the cooling system before replacing components.
<ul style="list-style-type: none"> Slight leakage of coolant Loss of coolant over a prolonged period 		Pro-Line Radiator Stop Leak K Description: The polysparkles contained in LIQUI MOLY Radiator Stop Leak K are deposited between the outside air and the cooling system where leaks are located - due to the difference in pressure - and plug them safely without the need for epoxy.

<ul style="list-style-type: none"> Oil and exhaust gas residues and resinification in the injector shaft prevent injectors being removed Corrosion in the injector shaft prevents removal 		Pro-Line Injector and Glow Plug Dismantling Aid Description: Heavy-duty solvent for seized injectors, glow and spark plugs. Undermines accumulated dirt and corrosion and enables easy removal. Outstanding cleaning properties allow stubborn oil residues, resinification and encrusted dirt to be removed easily.
<ul style="list-style-type: none"> Injectors/glow plugs begin to corrode (preventative use) Injectors/glow plugs become more difficult to remove (preventative use) 		Pro-Line Injector and Glow Plug Grease Description: Artly synthetic, metal-free special grease for lubricating injectors and glow plugs before installation in the engine. Blocks the ingress of moisture and so prevents corrosion of the injector and glow plug. The special grease also makes disassembly much easier.

<ul style="list-style-type: none"> Engine runs irregularly Loss of compression due to intake valves not closing properly 		Pro-Line Throttle Valve Cleaner + Pro-Line Fuel Injection Cleaner Description: The two products together remove even stubborn deposits in the fuel system and intake system, allowing the engine to run smoothly again. Instructions for use: Apply a thin coat of LIQUI MOLY Throttle Valve Cleaner to the intake valves. Keep the engine running and after 2-3 minutes the cleaner removes the loosened deposits in the residual fluid. LIQUI MOLY Fuel Injection Cleaner additive can be added at any time through the fuel tank (minimum content of 30 liters of fuel).
<ul style="list-style-type: none"> Injection nozzles are covered in deposits Delay in throttle response Emissions values outside permitted range 		Pro-Line Fuel Injection Cleaner Description: This highly concentrated cleaning additive removes even stubborn deposits in the fuel system, allowing the injection nozzles to function properly.
<ul style="list-style-type: none"> Irregular running and/or engine stalling while idling 		Pro-Line Throttle Valve Cleaner Description: LIQUI MOLY Throttle Valve Cleaner removes even stubborn deposits in the intake system, allowing the engine to run smoothly again. Instructions for use: The cleaning fluid is applied by spraying it onto the throttle valve at frequent intervals while the engine is running. This loosens the deposits, which are then burned off. Handy hint: For stubborn deposits, spray the cleaner sparingly into the throttle valve while the engine is at a standstill and allow the deposits to soak in the fluid for 2-3 minutes.
<ul style="list-style-type: none"> Injection nozzles, piston and combustion chamber are covered in deposits LSPI through combustion chamber and injector deposits 		Pro-Line Direct Injection Cleaner Beschreibung: Modern fuel additive with polyetheramine technology. Thanks to the use of active PEA, achieves the greatest cleaning effect in the fuel system as well as excellent piston and combustion chamber cleanliness. Considerably reduces the risk for damage to the engine due to low-speed pre-ignition (LSPI). For the ideal effect, add to the fuel every 5,000 km at the earliest. Handy hint: Is recommended by LIQUI MOLY as an alternative to Opel OEM part number 95 599 923.

<ul style="list-style-type: none"> Injection nozzles are covered in deposits Engine runs irregularly Emissions values outside permitted range 		Pro-Line Diesel System Cleaner Description: This highly concentrated cleaning additive removes even stubborn deposits in the fuel system, allowing the injection nozzles to function properly.
<ul style="list-style-type: none"> Engine is difficult to start Increase in fuel consumption 		Pro-Line Super Diesel Additive Description: This cleaning additive removes deposits in the fuel system and boosts the cetane number of the fuel. To keep the system clean over a prolonged period, add Super Diesel Additive every 2000 km. This in turn optimizes the combustion performance.
<ul style="list-style-type: none"> A new diesel filter must be filled with fuel before the replacement Heavy deposits on the injectors 		Pro-Line Dieselfilter Additive Description: To prevent air bubbles in the fuel system after replacing the filter, it is necessary to fill the fuel filter with fuel or with the Dieselfilter Additive before assembly. Increased wear on the high-pressure components during the initial starting is hereby prevented. In addition, the components carrying fuel are also intensively cleaned by the concentrated additive. Instructions for use: Add to the new diesel filter or the cartridge before assembly.
<ul style="list-style-type: none"> EGR valve indicates there is a fault due to contamination Intake valves and/or intake manifold clogged with soot 		Pro-Line Intake System Cleaner Diesel Description: LIQUI MOLY Intake System Cleaner Diesel removes even stubborn deposits in the intake system, allowing the engine to run smoothly again. Instructions for use: Before cleaning, make sure you have direct access to the relevant components. The entire quantity is then applied to the EGR valve, intake manifold and intake valve by squirting the product onto the components with the engine running at approx. 2500 rpm.
<ul style="list-style-type: none"> Particulate filter is frequently choked (preventive action) 		Pro-Line Diesel Particulate Filter Protection Description: This additive reduces the burn-off temperature of the soot particles generated by the combustion process and therefore prevents the particulate filter from becoming clogged up. To prevent the diesel particulate filter from becoming repeatedly clogged up, add LIQUI MOLY Diesel Particulate Filter Protection every 2000 km before refueling.
<ul style="list-style-type: none"> Particulate filter is clogged with soot Automatic regeneration function not active 		Pro-Line Diesel Particulate Filter Cleaner + Pro-Line Diesel Particulate Filter Purge Description: Used in succession, these two highly effective additives clean typical contaminants from the particulate filter. Instructions for use: LIQUI MOLY Diesel Particulate Filter Cleaner is applied to the surface using the pressurised spray gun and the probe through an opening in front of the particulate filter (e.g. pressure sensor or temperature sensor). After approx. 15 minutes, flush the loosened soot out to the exhaust using LIQUI MOLY Diesel Particulate Filter Purge. After cleaning the filter, go through the regeneration process as specified by the manufacturer.

High oil consumption? A solution in just a few steps:

 Step 1 Fuel System Cleaner Cleaner Gasoline: Pro-Line Fuel Injection Cleaner, 500 ml-Cont., Add entire contents to tank Diesel: Pro-Line Diesel System Cleaner, 500 ml-Cont., Add entire contents to tank	 Step 2 Intakte System Cleaner Gasoline: Pro-Line Throttle Valve Cleaner, 400 ml-Cont., Apply completely Diesel: Pro-Line Intake System Cleaner Diesel, 400 ml-Cont., Apply completely	 Step 3 Cleaning of the motor oil circuit/the piston rings Pro-Line Engine Flush, 500 ml-Cont., Add entire contents or 15 % of the oil filling quantity Let engine idle for 15 minutes	 Step 4 Change oil and add additives Drain off the old oil, take a sample of the old oil if necessary. Change the oil filter. Use motor oil with the highest possible viscosity. Follow the manufacturer's instructions! Pro-Line Engine Wear Protection, 1 l-Cont., Add 5 % of the oil filling quantity
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