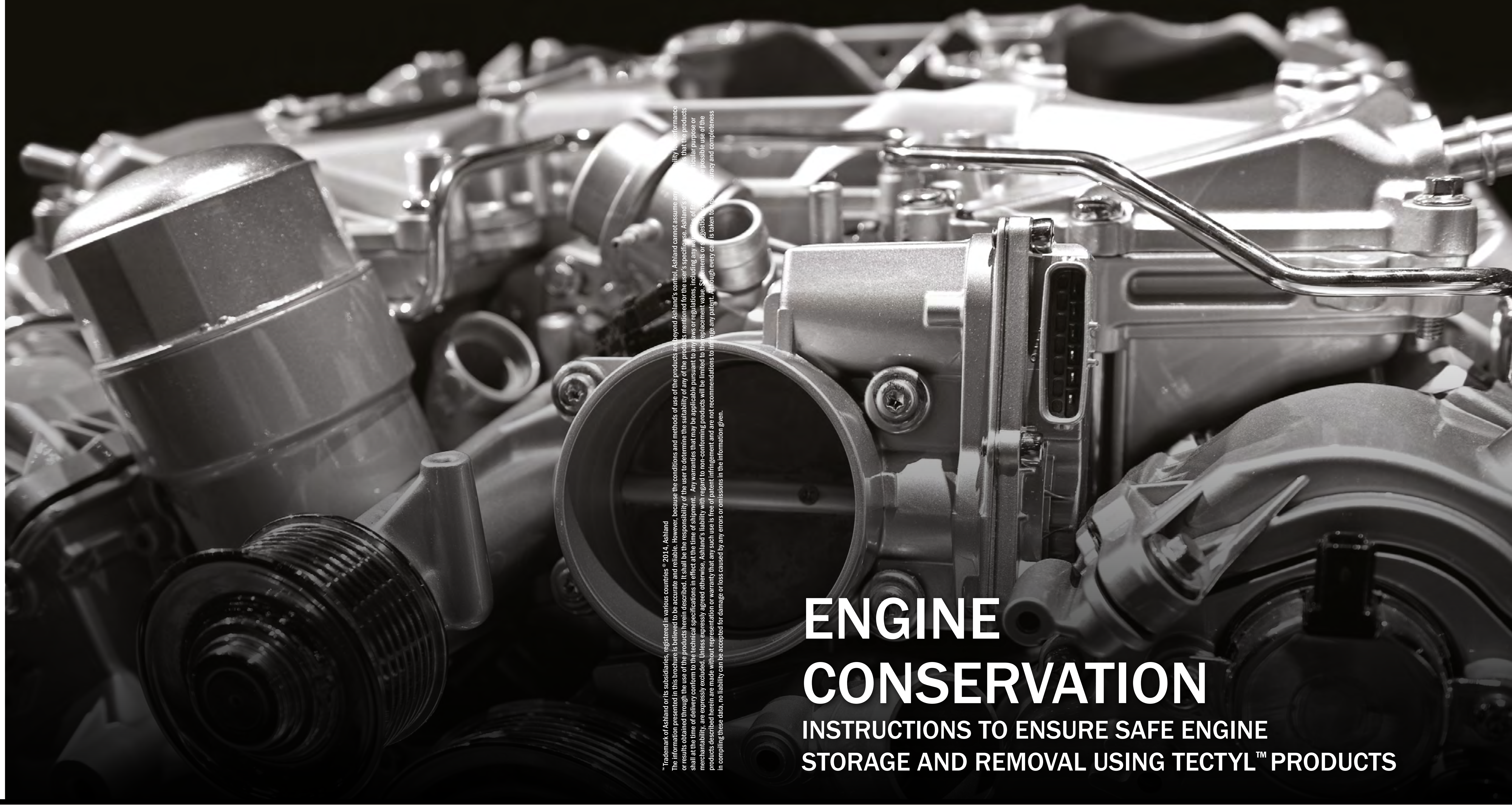
REMOVAL PROCEDURE

Detailed procedures of engine storage and removal from storage using Tectyl products

1. Remove paper and tape from all openings. Remove the warning tag.
2. Flush the fuel system with clean diesel fuel to remove all preservative oil. Install a new fuel filter or filters.
3. Remove the plug from the main oil rifle and flush all preservative oil from the engine. Install the plug.
4. Rotate the water pump to make sure it hasn't rusted in place.
5. Rotate the crankshaft three to four times to make sure the piston rings are free and there are no foreign object is in the engine.
6. Fill the engine oil pan sump, oil filters and fuel filters (if applicable).
7. Drain the preventative compound from the cooling system.
8. Fill the coolant system with coolant.
9. Install the exhaust after-treatment components (if applicable)
10. Prime the lubricating system. Refer to the engine run-in procedure corresponding base troubleshooting and repair manual or service manual for the engine being serviced.
11. For engines with exhaust aftertreatment systems, force an active regeneration of the after-treatment system.
12. Adjust the injector (if applicable) and valve clearance. Refer to the overhead set procedure in the corresponding base troubleshooting and repair- or service manual for the engine being serviced.
13. Tighten the intake manifold cap screws.
14. Tectyl 3217 Ewill cure to a transparant hard film and does not need to be removed before operating the engine.

TECTYL MATERIAL NUMBERS

Material Number Table	400ML	20L	203L
Tectyl 800 D		802281	VE20886
Tectyl 930 Spray	791652		
Tectyl 502-C		802254	VE20726
Tectyl 915W-40			VE90523
Tectyl 3217E		797171	837058



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ENGINE CONSERVATION

INSTRUCTIONS TO ENSURE SAFE ENGINE STORAGE AND REMOVAL USING TECTYL™ PRODUCTS

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PROVEN RUST PREVENTION AROUND THE WORLD FOR MORE THAN 80 YEARS

When preserving an engine by taking it out of commission and putting it in storage, it is important to follow strict procedures in order to avoid damage to your capital investment. Effectively protecting from dirt and corrosion is essential so that the preserved engine can be properly removed from storage without any contamination.

It is very important to handle the preservation process with great care to store high-end aggregates and engines for longer periods of time, without quality losses and protection against damages. The Tectyl range of products are highly suitable for the process of engine conservation. In this brochure, the entire process of engine conservation is explained step-by-step.

PROVIDING CUSTOMER SOLUTIONS IS THE KEY TO QUALITY

Since 1930, customers around the world have chosen the Tectyl brand for innovative solutions, service, and expertise – making Tectyl products the driving force in rust protection.

The Tectyl brand of protective products is owned by Ashland Consumer Markets (Valvoline) in the Europe, Middle-East and African (EMEA) region. Consumer Markets, a commercial unit of Ashland Inc., is one of the largest independent international oil companies in the world with sales and operations in more than 100 countries.

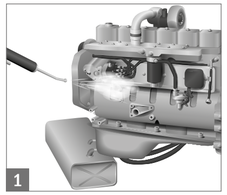
In Europe, Valvoline produces a comprehensive range of Tectyl rust preventive products and lubricants for automotive and industrial applications. Through extensive market research, product development and quality control we can supply exactly the right Tectyl product for almost every kind of preservation process.

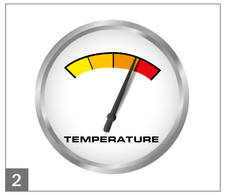
THE DRIVING FORCE IN RUST PROTECTION!

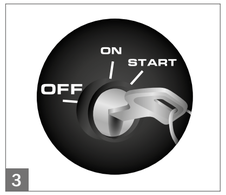
ENGINE CONSERVATION INSTRUCTION

Detailed procedures of engine storage and removal from storage using Tecty products.

Storage Preparation

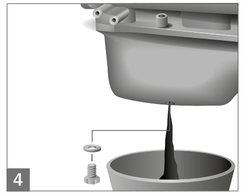


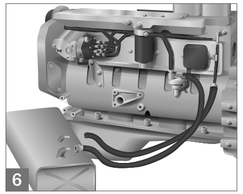




If necessary, supply the engine in accordance with seperate OEM instructions

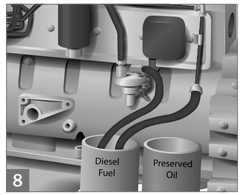
1. If the engine has been in service, clean the engine from dirt and oil.
2. Operate the engine at high idle until the coolant temperature is higher than 80°C (170°F).
3. Turn off the engine.

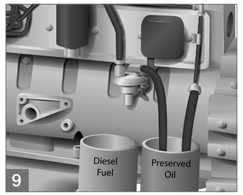




4. Drain the oil, clean magnetic drain plugs where used and install the drain plugs again.
   Use Tectyl 915W-40 preservation oil. This product can be used as a break-in oil and will provide long term engine rust protection.
   a. replace the old oil filter and oil in the filterhousing.
5. Fill the oil pan to the high mark on the dipstick with Tectyl 915W-40.
6. Disconnect the fuel lines to the engine fuel filter and the injector return line.

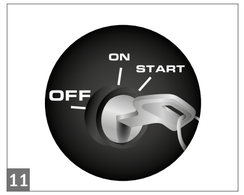
* For exact viscosity grade, please refer to owner's manual

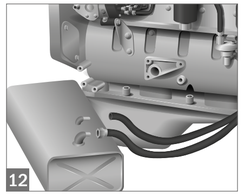


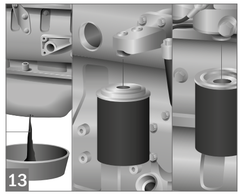


For the next step, use Tectyl 800D as preservative oil.

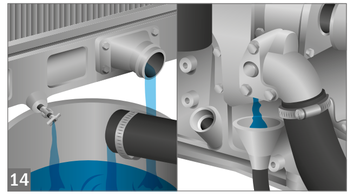
7. Fill one container with diesel fuel and the second container with Tectyl 800D preservative oil (mix 50/50). Place both fuel lines in the container of diesel fuel.
8. Start the engine and run at idle (for approx. 30 seconds).
9. After the engine is operating smoothly, transfer the fuel supply line into the container of preservative oil.

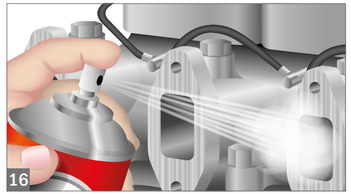




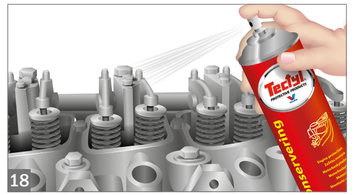


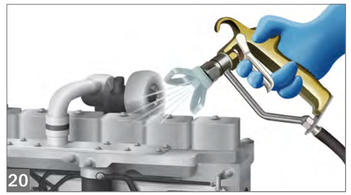
10. Operate the engine until the preservative oil flows out of the injector return line.
11. Turn the OFF the engine.
12. Connect the fuel lines to the fuel filter and the injector return line.
13. Drain the preservation oil from the engine oil pan sump, the air compressor and oil filters.



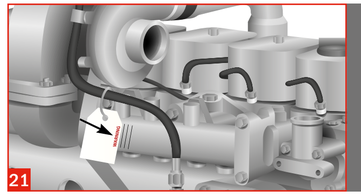


14. Drain the cooling system and the cooling filter if equipped. We recommend to flush the cooling system with a water solube rust inhibitor.
15. Remove the Intake and Exhaust manifolds.
16. Spray Tectyl 930 Aerosol (if multiple or bigger engines use Tectyl 502C) into the intake and exhaust ports in the cylinder heads and in the manifolds (ensure that the engine is switched off).
17. Remove the valve cover or covers.





18. Spray the rocker levers, valve springs, valve guides, crossheads and push rods with Tectyl 930 Aerosol for single engine use or Tectyl 502C for multiple engine use.
19. After applying, reinstall the valve cover or covers.
20. Apply Tectyl 3217E, with a low pressure airspray or airless application, over the outside of the engine. The applied layer should be 25-50 microns.



CAUTION!

Put a warning tag on the engine. The tag must indicate

- Do not operate the engine
- Do not bar the crankshaft
- The engine has been treated with preservatives
- The coolant has been removed
- The date of treatment

The engine can be stored in an area that is dry and has a constant temperature

21. Cover all openings with heavy paper and tape to prevent dirt and moisture from entering the engine.

ENGINE CONSERVATION