

Greaves Cotton Limited Diesel Engines Unit Head office & Works : Chinchwad, Pune - 411 019. Tel. : +91 20 27473564, 27472601, Fax : +91 20 27474567, 27472276 Email : bg1ho@greavesmail.com Website : www.greavescotton.com



# **Engine Preservation**

#### 1. Engine preservation during prolonged period of non-usage

If the period between engine dispatch from Greaves and the installation is more than six months or if a engine is to be non operational for more than twelve months, the engine has to be preserved to avoid damage due to corrosion, dust, and other factors. Preferably a preserved engine should be covered in plastic sheet and stored in cool dry, shaded place.

#### 2. Following instructions are to be followed for engine preservation:

- 1. Run the engine with clean fuel at rated speed at no load for about 10 minutes. This warms up the engine and the lube oil is circulated all over inside the engine.
- 2. Stop the engine and immediately drain the oil. Fill up the engine with one of the preservative oils to the low level mark on dipstick. Choose preservative oil from the list given below.
- 3. Run the engine at rated speed with no load for 5 minutes.
- 4. Make a clean solution of preservative oil and diesel (1: 5 ratio) and connect the mixture to the fuel pump inlet by gravity feed.
- 5. Drain the coolant from cooling system. Rinse the system thoroughly with clean water. Fill the cooling system with mixture of water and any of the coolant additives listed in the requisite ratio.
- 6. Crank the engine and run it at rated speed with no load for half a minute. Stop the engine.
- 7. Remove air cleaner, fuel filter and lube oil filter, pack them separately.
- 8. Drain preservative oil from sump and refit the drain plug. Drain water-preservative mixture from cooling circuit. Treat all unpainted open surfaces with rust preventive coats.
- 9. Seal all openings with caps, plastic sheets or waterproof paper. Seal the dipstick with the tape.
- 10. After this point do not rotate the engine.
- 11. Remove belts and store separately.
- 12. The battery should be disconnected. Ensure electrolyte level. Charge the battery at regular intervals.
- 13. Put a mark on the engine indicating date of preservation.
- 14. Periodically inspect the engine for corrosion, effects of humidity and dirt.
- 15. The above procedure has to be repeated after every 12 months.



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## **Recommended preservatives**

Manufacturer	Rust preventive	Cooling system	Lube oil and fuel circuit
Bharat Petroleum	Bharat Rustol 152	Bharat Sherol B emulsion with water (1: 20 ratio)	Bharat Preserve oil 30
Indian Oil Corporation	Servo RP 125	Servo Cut S 20% Emulsion with water	Servo preserves 30. Servo Run-N oil 30
Hindustan Petroleum	Rustop 274	Koolkit 40.5% emulsion with water	Auto run T 120
Veedol	Veedol Rustop IT	Veedol Amulkut 4 Emulsion with water 1:15	Veedol 30/40

### 3. Putting a preserved engine back into operation.(check numbering)

- 1. Remove all seals. Clean up the engine. Remove rust preventive coat.
- 2. Fit air cleaner, fuel filter, Lube oil filter, and belts. Use new filter elements. Apply correct tension to the belts.
- 3. If rubber components (Hoses, belts, etc) are cracked or brittle, replace them.
- 4. Fill up correct grade oil up to the high level mark on dipstick.
- 5. Fill up coolant. Remove trapped air.
- 6. Connect supply of clean fuel. Remove trapped air.
- 7. Fit a charged battery. Check the electrical connections.
- 8. Run the engine at rated speed at no load for 5 minutes. Observe and look for any irregular noise, vibration, etc. If some irregular behavior is observed take corrective actions or call authorized service dealer.
- 9. Start the engine and put it into service.