

The Volkswagen 4.2-Liter V8-5V Engine Design and Function



Self-Study Program
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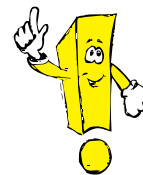
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New!



Important/Note!



The Self-Study Program provides you with information regarding designs and functions.

The Self-Study Program is not a Repair Manual.

For maintenance and repair work, always refer to the current technical literature.

Introduction

The 4.2L V8-5V Engine

The 4.2L V8-5V engine is new to Volkswagen.

Special features of the 4.2L V8-5V engine include the following:

- Aluminum block with no liners.
- Aluminum five-valve cylinder head with roller rockers.
- Camshaft adjustment.
- Three-stage variable intake manifold.
- Engine management system, Bosch Motronic ME 7.1.1.
- Water-cooled 190-ampere generator.
- Crankcase with a large flange pattern.
- Crankshaft with a ten-hole flange.
- Oil filter module with integrated oil cooler.
- Non-return fuel supply system.
- Seven-ribbed poly V-belt drive.

- Low-Emission Vehicle (LEV) exhaust emission standards.
- Two hot film air mass meters with integrated air temperature sensors.
- Single ignition coils with integrated output stages.
- Two controlled fuel pumps.
- Two electric cooling fans.

Special design features specific to the Touareg application include:

- Special seals to accommodate the Touareg water hazard fording capabilities.
- Pressure and purge oil pump for off-road use.
- Accessories adapted for fording water hazards.
- Deep oil sump for operation on steep and offset grades.



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