

1974-79 TUNE-UP PROCEDURES Volkswagen 4-Cylinder Diesel

1977-79 Dasher, Rabbit

ENGINE IDENTIFICATION

The first 2 characters of the engine identification number identify engine. Number is stamped on engine block, just below cylinder No. 3 glow plug.

ENGINE CODES

Application	Code
All Models	CK

MODEL IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

On Rabbit, Vehicle Identification Number is located on the left side of the instrument panel and is visible through the windshield. On Dasher, number is located on left side windshield pillar.

ENGINE COMPRESSION

- 1) Disconnect wire from fuel shut-off/stop control solenoid (on injection pump). Insulate wire end and remove injection pipes. Disconnect fuel return hoses and remove injectors. Remove heat shields from injectors and place in cylinder as it is being tested.
- 2) Install Test Gauge Adapter (VW 1323/2) and Test Gauge (VW 1323) to glow plug hole, operate starter and read compression. Maximum variation between cylinders should not exceed 71 psi (5.0 kg/cm²). Install new injector heat shields when reinstalling injectors.

COMPRESSION PRESSURE SPECIFICATIONS

Application	Pressure
Standard	483 psi (34 kg/cm ²)
Minimum	398 psi (28 kg/cm ²)

VALVE CLEARANCE

NOTE: When adjusting valves, pistons **MUST NOT** be at TDC. Turn crankshaft 1/4 turn past TDC so valves do not hit pistons when tappets are depressed. Place vehicle in 4th gear and push to turn crankshaft. **DO NOT** rotate crankshaft by turning camshaft pulley.

- 1) Warm engine to normal operating temperature. Measure clearance between cam lobes and adjusting disc, when both lobes to be checked point upward. Check and record valve clearances.
- 2) Adjust clearance to specifications by changing disc thickness. Discs are available in thicknesses from .118" (3.00 mm) to .167" (4.25 mm). Remove adjusting discs using Disc Remover (10-208) while holding cam follower down with Depressor (VW 546).

VALVE CLEARANCE SPECIFICATIONS

Application	Intake In. (mm)	Exhaust In. (mm)
All Models008-.012 (.20-.30)	.016-.020 (.40-.50)

VALVE ARRANGEMENT

E-I-E-I-I-E-I-E - Front-to-rear.

ADJUSTMENTS

IDLE SPEED

Warm engine to normal operating temperature. Mount Tachometer Sensor (US 1324) on valve cover and connect to battery. Attach tachometer to sensor and check idle speed. If adjustment is needed, loosen lock nut on idle screw. See Fig. 1. Turn screw in to increase idle, out to decrease. Apply thread sealer and tighten lock nut.

IDLE SPEED SPECIFICATIONS

Application	RPM
All Models	770-870

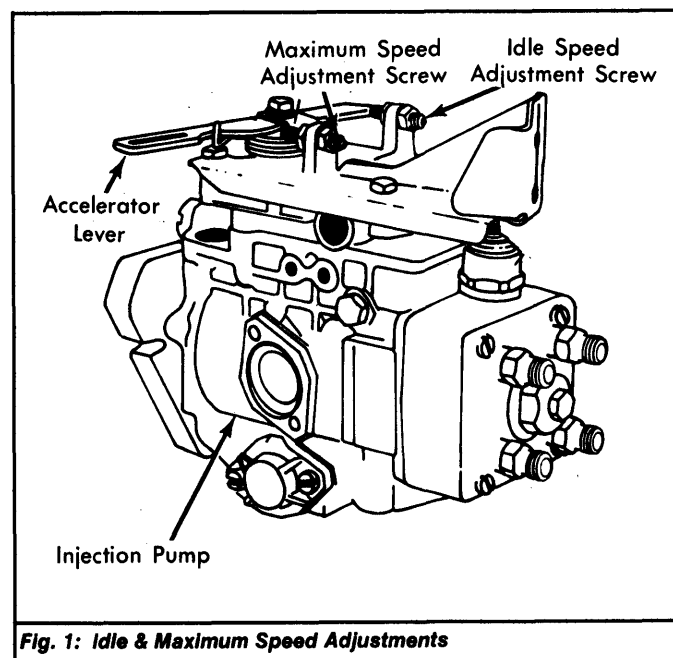


Fig. 1: Idle & Maximum Speed Adjustments

MAXIMUM SPEED

- 1) Warm engine to normal operating temperature. Mount Tachometer Sensor (US 1324) on valve cover and connect to battery. Connect tachometer to sensor and set idle speed. Accelerate engine briefly to full throttle.
- 2) If maximum speed does not match specifications, loosen maximum speed adjustment screw lock nut and turn screw. Turning screw out raises speed, turning screw in lowers speed. Apply thread sealer and tighten lock nut.

MAXIMUM SPEED SPECIFICATIONS

Application	RPM
All Models	5500-5600

FUEL SYSTEMS

FUEL INJECTION

All models use Bosch diesel fuel injection system.
Other Data & Specifications - See Bosch Diesel Fuel Injection article in FUEL SYSTEMS section.