

TUNE-UP

Diesel Pickup

ENGINE IDENTIFICATION

Engine number is stamped into right side of block.

Engine Code

Application	Code
All Models	SD22

COMPRESSION PRESSURE

- 1) Check compression pressure with engine at normal operating temperature. Remove injection tube on nozzle side, spill tube assembly and nozzle assemblies with washers.
- 2) Fit compression gauge adapter (ED19600000) to No. 1 cylinder. Hand tighten bleeder screw on gauge. Crank engine at least 6 "puffs" and check compression.
- 3) Remove compression gauge adapter and repeat step 2) for remaining cylinders. Install nozzle assemblies with washers, spill tube assembly, and injection tube. Bleed fuel system. See **BLEED FUEL SYSTEM**.

Compression Pressure Specifications

Application	Pressure psi (kg/cm ²)
Normal (New Engine)	427 (30)
Minimum	356 (25)
Maximum Variation	43 (3)

VALVE CLEARANCE

- 1) Warm up engine to normal operating temperature. Turn engine off. Remove valve cover. Rotate crankshaft to bring No. 1 piston to TDC on compression stroke. Adjust intake valves on cylinder No. 1 and 2, and exhaust valves on cylinder No. 1 and 3.
- 2) Rotate crankshaft to bring No. 4 piston to TDC on compression stroke. Adjust intake valves on cylinder No. 3 and 4, and exhaust valves on cylinder No. 2 and 4.

Valve Clearance Specifications[ⓐ]

Application	Clearance In. (mm)
All Models (Intake & Exhaust)014 (35)

ⓐ — Adjust with engine warm.

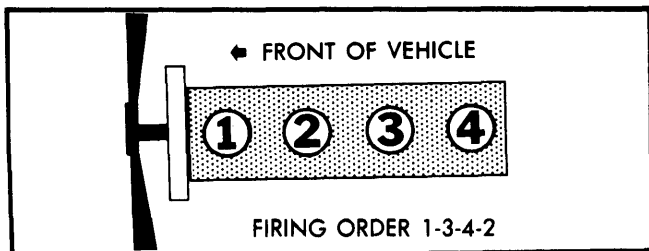


Fig. 1 Firing Order Illustration

VALVE ARRANGEMENT

E-I-I-E-E-I-I-E (Front-to-rear)

IDLE SPEED ADJUSTMENT

- 1) With transmission in neutral, parking brake applied and all wheels blocked, warm up engine to normal operating temperature. Connect tachometer to No. 1 injection tube. Remove clamp from No. 1 injection tube.
- 2) Push in throttle control knob under dash panel. Loosen idle adjusting screw lock nut. Start engine and adjust idle by turning idle adjusting screw. See Fig. 2. Tighten idle adjusting screw lock nut.

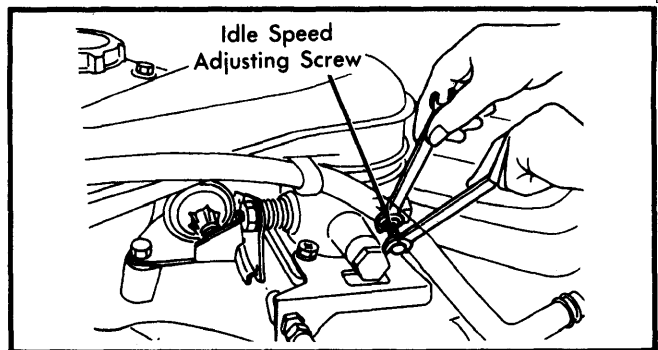


Fig. 2 Idle Speed Adjustment

Idle Speed Specifications

Application	Idle RPM
All Models	550-700

DASHPOT ADJUSTMENT

- 1) Warm up engine to normal operating temperature. Connect tachometer to No. 1 injection tube. Remove clamp from No. 1 injection tube. Loosen dashpot lock nut.
- 2) Hold throttle lever to maintain engine speed at 1280-1350 RPM. Adjust dashpot so that control lever tip contacts dashpot tip. See Fig. 3. Tighten dashpot lock nut.

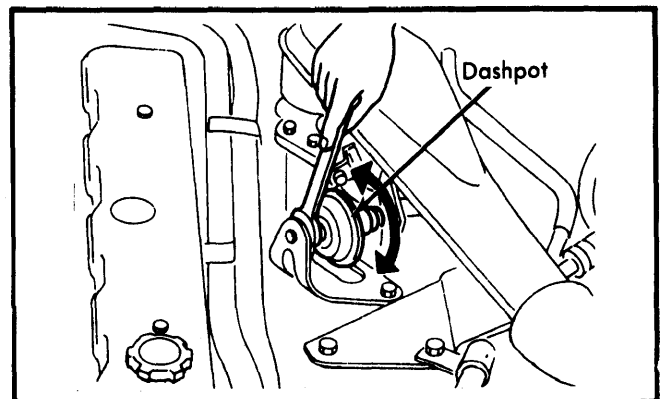


Fig. 3 Dashpot Adjustment

TUNE-UP (Cont.)

Dashpot Adjustment Specifications

Application	RPM
All Models	1280-1350

BLEED FUEL SYSTEM

Bleed fuel system by removing primary pump cap and loosening air vent screw. Turn priming pump counterclockwise and move up and down until no air comes out air vent screw. Tighten screw. Push and turn priming pump clockwise. Install cap. Wipe off excess fuel.

GENERAL SERVICING

FUEL SYSTEMS

FUEL INJECTION

All models use Bosch mechanical diesel fuel injection.

ELECTRICAL

BATTERY

Application	Amp. Hr. Rating
All Models	70

Battery Location — Engine Compartment.

STARTER

Hitachi solenoid actuated with overrunning clutch.

Starter Specifications

Application	Volts	Amps	Test RPM
All Models	12	90	4000

ALTERNATOR

All models are equipped with Hitachi alternators.

Application	Rated Amp. Output
All Models	50

ALTERNATOR REGULATOR

All models use a Hitachi alternator regulator with an operating voltage of 14.4-15.0 volts at 68°F (20°C).

BELT ADJUSTMENT

Application	① Deflection
All Models	
All Belts	$\frac{5}{16}$ "- $\frac{1}{4}$ " (8-12 mm)
① — Deflection is with 22 lbs. (10 kg) pressure applied midway on longest belt run.	

FILTERS

Filter	Service Interval (Miles)
Oil Filter	Replace every 6,000
Fuel Filter	Replace every 15,000
Air Filter	Replace every 30,000

CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	6.4 qts.
Cooling System (Includes Heater)	10.5 qts.
Man. Trans. (SAE 80W-90/API GL-4)	4.3 pts.
Rear Axle (SAE 80W-90/API GL-5)	2.6 pts.
Fuel Tank	
Shortbed ①	13.3 gals.
Longbed	16.9 gals.

① — Includes King Cab model.