

TUNE-UP

Pickup

ENGINE IDENTIFICATION

First 4 digits of engine identification are used to identify engine models. Code is stamped on right side of cylinder block.

Engine Code

Application	Code
Pickup (2238 cc)	C223

COMPRESSION PRESSURE

Start and run engine until normal operating temperature is obtained. Remove sensing resistor, glow plug connectors, glow plugs and fuel cut solenoid connector. Disconnect fusible link wire of "Quick Start" system at harness connector. Install compression gauge adapter (J-29762) and compression gauge. Operate starter and read compression.

Compression Pressure Specifications (Reading @ 200 RPM)

Application	Pressure psi (kg/cm²)
Normal (New Engine)	441 (31)
Minimum	398 (28)

VALVE CLEARANCE

CAUTION — Before adjusting valves, check rocker arm shaft bracket bolts for looseness and tighten as necessary.

1) Rotate crankshaft until No. 1 piston is at TDC of compression stroke. Measure between adjusting screw and valve stem end cap. With No. 1 piston at TDC, adjust intake valves on cylinder No. 1 and 2, and exhaust valves on cylinder No. 1 and 3.

2) Rotate crankshaft 1 complete revolution until No. 4 piston is at TDC of compression stroke. Adjust intake valves on cylinder No. 3 and 4, and exhaust valves on cylinder No. 2 and 4.

Valve Clearance Specifications

Application	Intake In. (mm)	Exhaust In. (mm)
Pickup		
Hot015 (.38)	.015 (.38)
Cold016 (.40)	.016 (.40)

VALVE ARRANGEMENT

Pickup — E-I-I-E-E-I-I-E

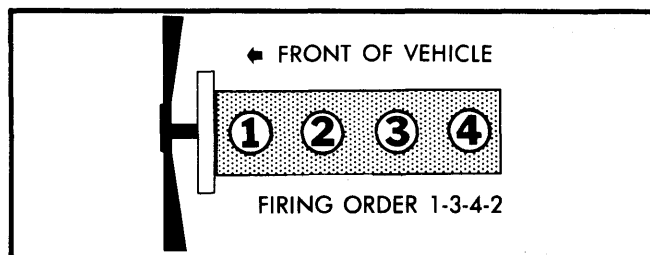


Fig. 1 Diesel Firing Order Illustration

IDLE SPEED ADJUSTMENT

Set parking brake and block drive wheels. Connect tachometer to warm engine and start engine. Check that idle speed is correct with accelerator lever touching idle adjusting screw. To adjust idle speed, loosen lock nut and turn adjusting screw until idle speed is set to specifications. Tighten lock nut.

Idle Speed Specifications

Application	Idle RPM
Pickup	700-800

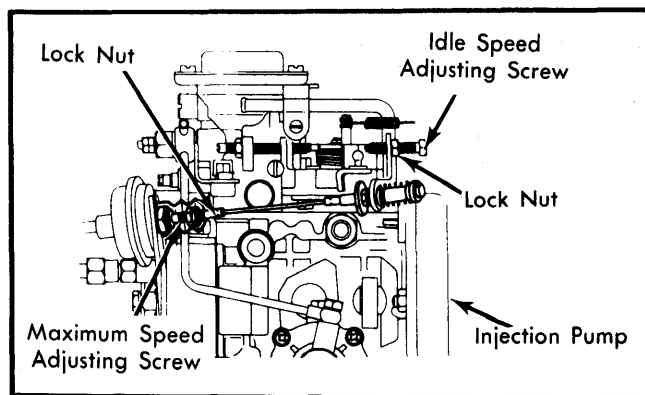


Fig. 2 Idle and Maximum Speed Adjustment

MAXIMUM SPEED ADJUSTMENT

Connect tachometer to warm engine. Start engine and check idle speed. Disconnect hoses from vacuum switch valve and connect together with piping. Accelerate engine briefly to full throttle. If maximum speed does not conform to specifications, loosen lock nut and adjust speed by turning maximum speed adjusting screw. Tighten lock nut.

Maximum Speed Specifications

Application	Maximum RPM
Pickup	900-950

GENERAL SERVICING

FUEL SYSTEMS

FUEL INJECTION

All models use Bosch mechanical diesel fuel injection.

ELECTRICAL

BATTERY

Battery Location — Battery is located in engine compartment.

1981 LUV Diesel 4 Tune-Up

GENERAL SERVICING (Cont.)

Application	Amp. Hr. Rating
All Models	80

STARTER

All models use Hitachi starters.

ALTERNATOR

All models use Hitachi alternators.

Application	Rated Amp. Output
All Models	50

ALTERNATOR REGULATOR

All models use Hitachi regulators, with an operating voltage of 14.0-14.6 volts at 68°F (20°C).

BELT ADJUSTMENT

Application	①Deflection
All Belts4" (10 mm)

① — Measured between longest span and depressed with firm thumb pressure.

FILTERS

Filter	Service Interval (Miles)
Oil Filter	①Replace every 7500
Air Filter	Replace every 30,000
Fuel Filter	Replace every 30,000

① — First change after 3750 miles.

CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	①5.1 qts.
Cooling System	8.5 qts.
Man. Trans. (SAE 30)	
4 Spd	2.7 pts.
5 Spd	3.3 pts.
Auto. Trans. (Dexron II)	5.0 qts.
Transfer Case (SAE 30)	5.2 pts.
Rear Differential (SAE 90)	2.7 pts.
Front Differential (SAE 90)	1.7 pts.
Fuel Tank	
Short Wheelbase	13.2 gals.
Long Wheelbase	18.5 gals.

① — 4.2 quarts without filter.