

TUNE-UP

504 Diesel
505 Diesel
505 Turbo Diesel
604 Turbo Diesel

ENGINE IDENTIFICATION

Engine number is stamped on left side of block just below cylinder head and is followed by VIN number.

Engine Code

Application	Code
Exc. Turbo	XD2C
Turbo	XD2S

COMPRESSION PRESSURE

With engine at normal operating temperature, disconnect injection lines, then remove return lines and nozzle holders. Lock pump stop control in off position. Connect pressure gauge and crank for 4 seconds at 300 RPM. Compression pressure should be as follows:

Compression Pressure Specifications

Application	Pressure psi (kg/cm ²)
Minimum	261 (18.3)
Maximum Variation	72 (5.1)

VALVE CLEARANCE

Valves must be set with engine cold. To adjust valves, rotate crankshaft until valve listed in first column of table is fully open, then adjust valves listed in second column of table. Note that valves (and cylinders) are numbered from REAR to FRONT.

Valve Adjustment Sequence

Valve Open	Valves to Adjust
No. 1 Exh.	No. 3 Int. & No. 4 Exh.
No. 3 Exh.	No. 4 Int. & No. 2 Exh.
No. 4 Exh.	No. 2 Int. & No. 1 Exh.
No. 2 Exh.	No. 1 Int. & No. 3 Exh.

Valve Clearance Specifications[Ⓞ]

Application	Intake In. (mm)	Exhaust In. (mm)
Exc. Turbo010 (25)	.010 (25)
Turbo006 (15)	.010 (25)

Ⓞ — Engine Cold

VALVE ARRANGEMENT

All Models — I-E-E-I-I-E-E-I (rear to front)

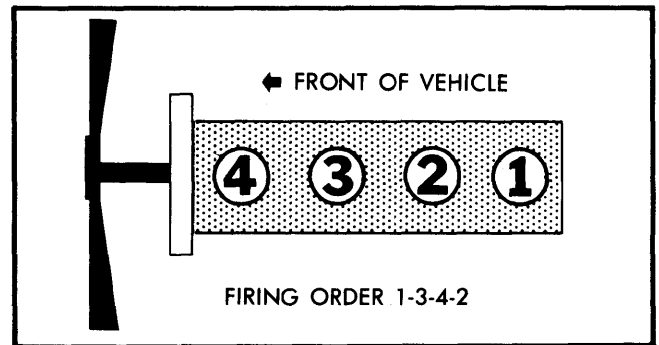


Fig. 1 Diesel Firing Order Illustration

GLOW PLUGS

Torque 33 Ft. Lbs. (44 N·m)

IDLE SPEED ADJUSTMENT

1) With engine warm, attach tachometer. Check to see that accelerated idle stop is not in contact with throttle lever and that accelerator cable is released. Adjust set screw to obtain idle speed as listed in table. See Fig. 2.

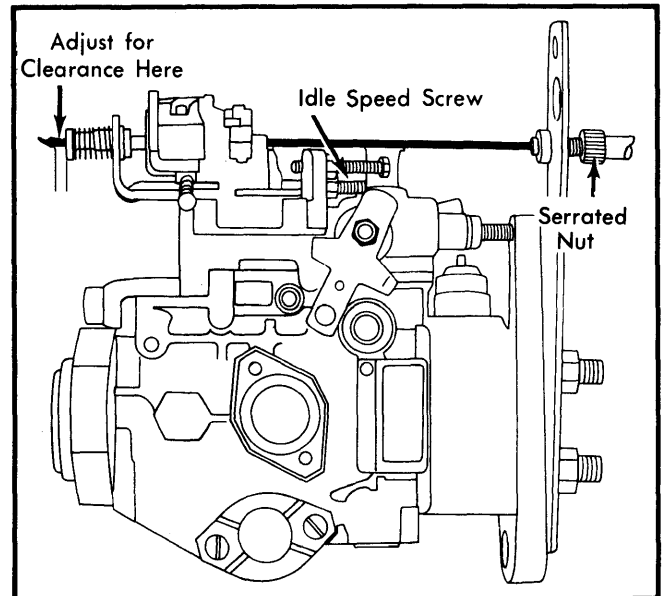


Fig. 2 Diesel Idle Adjustment Locations

2) Turn fast idle cable sleeve nut to obtain a clearance of .04" (1 mm) between fast idle cable end and fast idle stop. Start engine and warm to operating temperature. Compress the fast idle stop and check idle speed. Engine speed should be 1200-1400 RPM. Adjust if necessary. Adjust cable and clearance.

TUNE-UP (Cont.)

Idle Speed Specifications

Application	Idle RPM
504 & 505	
With A/C	830-860
Without A/C	730-830
505 & 604 Turbo	
With A/C	800-860
Without A/C	780-840

BLEEDING & PRIMING FUEL SYSTEM

1) Loosen bleed screw at bottom of filter bowl. Pump lever or button on top of filter to force out water. Retighten bleed screw and loosen air bleed screw. Pump button until resistance is felt, then tighten air bleed screw.

NOTE — Bleed filter every 3000 miles, or more often if necessary.

2) If vehicle ran out of fuel and injector pump is dry, continue to pump fuel filter button approximately 40 times. Turn key on and activate starter for 15 seconds, then press accelerator until engine starts.

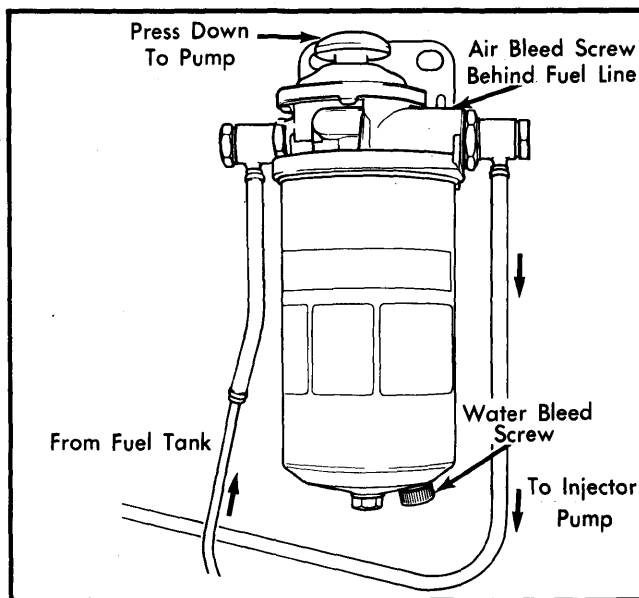


Fig. 3 Fuel System Bleeding Locations

GENERAL SERVICING

FUEL SYSTEMS

FUEL INJECTION

All models use Bosch Diesel Injection Systems with the VE4/9 F2250 R50 pump.

ELECTRICAL

BATTERY

Application	Amp. Hour Capacity
All Models	60

Battery Location — In engine compartment.

STARTER

All Models Bosch, Ducellier or Paris-Rhone

ALTERNATOR

All models are equipped with a Paris Rhone alternator rated at 75 amperes.

ALTERNATOR REGULATOR

All models are equipped with a Paris Rhone integral alternator regulator.

BELT ADJUSTMENT

Using a "Krikitt" gauge (Part No. 9797.09) check belt tension for the following values:

Belt	New	Used
Vacuum Pump	44-66 lbs.	33 lbs. max.
All Other Belts	88-110 lbs.	44 lbs. max.

FILTERS

Filter	Service Interval (Miles)
Air Filter	
Exc. Turbo	Replace every 15,000
Turbo	Service every 30,000
Oil Filter	Replace every 3000
Fuel Filter	Replace every 12,500

CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	5.3 qts.
Cooling System	10.5 qts.
Man. Trans. (SAE 10W-40)	2.4 pts.
Auto. Trans. (Dexron)	5.4 qts.
Rear Axle (SAE 80)	3.3 pts.
Fuel Tank	18.0 gals.