

1974-79 TUNE-UP PROCEDURES

Volvo 6-Cylinder

1974-75 164

ENGINE IDENTIFICATION

Engine may be identified by the number stamped on left side of engine block, just forward of distributor. Number also is found on model plate, located on right front suspension strut mounting.

MODEL IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

Vehicle Identification Number is located on a plate attached to the left windshield pillar. Number also appears on model plate, located on right front suspension strut mounting.

ENGINE COMPRESSION

Warm engine to normal operating temperature. Check compression with triggering cable on distributor disconnected to shut-off fuel flow to injector, and engine cranking at 250-300 RPM.

ENGINE COMPRESSION PRESSURE

Application	Pressure
All Models	128-156 psi (9-11 kg/cm ²)

VALVE CLEARANCE

Adjust valves with engine cold. Rotate crankshaft so cylinder No. 1 is at TDC of compression stroke. Using a go-no-go type feeler gauge, check clearance of valves No. 1, 2, 3, 6, 7 and 10 (front-to-rear). Rotate crankshaft until cylinder No. 6 is at TDC of compression stroke. Check clearance of valves No. 4, 5, 8, 9, 11 and 12.

VALVE CLEARANCE SPECIFICATIONS

Application	Clearance In. (mm)
Intake	.020 (.50)
Exhaust	.020 (.50)

VALVE ARRANGEMENT

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

SPARK PLUGS

SPARK PLUG SPECIFICATIONS

Application	Specification
Gap	.028-.032" (.70-.80 mm)
Torque	25-29 ft. lbs. (34-39 N.m)

SPARK PLUG TYPE

Application	Champion No.
All Models	BN9Y

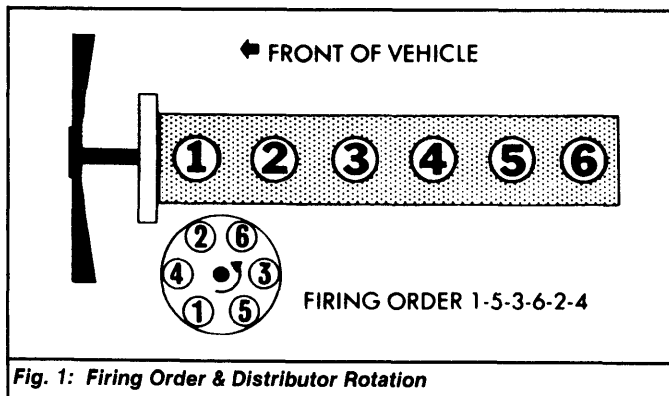


Fig. 1: Firing Order & Distributor Rotation

DISTRIBUTOR

Models are equipped with Bosch single-point distributors or Bosch electronic ignition system.

DISTRIBUTOR

Application	Specification
Point Gap	.016" (.41 mm)
Dwell Angle	39-45°
Breaker Arm Spring Tension	18-22 oz. (510-624 g)
Condenser Capacity	.22 mfd.

IGNITION TIMING

Connect timing light and tachometer to engine. Disconnect and plug distributor vacuum hose. Adjust idle speed to 600-800 RPM. Rotate distributor as needed to set timing to specifications. Reconnect distributor vacuum hose.

IGNITION TIMING SPECIFICATIONS

Application	RPM	Timing
All Models	600-800	10°BTDC

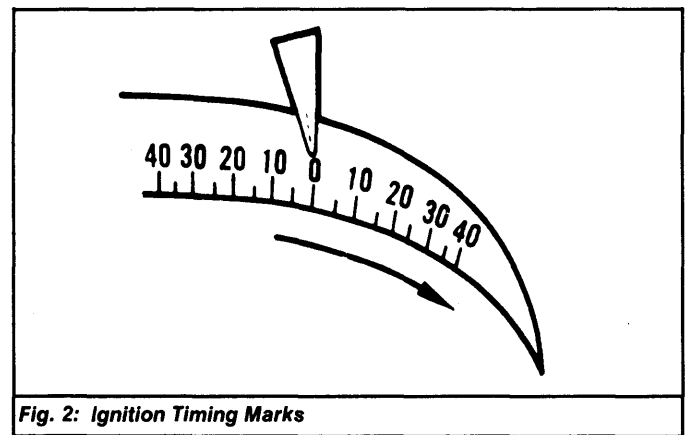


Fig. 2: Ignition Timing Marks

IDLE SPEED & MIXTURE

1) Warm engine to normal operating temperature. Disconnect air cleaner hose from intake duct. Connect tachometer and exhaust gas analyzer to vehicle. Ensure auxiliary air regulator is completely closed by pulling off hose between intake duct and regulator. Cover air inlet opening with hand.

2) Set idle speed to specification by means of idle adjustment screw located between the air regulator hoses. If idle speed cannot be sufficiently lowered, check basic setting of throttle valve. Valve should be closed when engine is idling.

3) To adjust CO% level, install air cleaner hose. Turn adjusting screw on Electronic Control Unit (ECU) to obtain correct CO% level. Turning screw clockwise increases CO% level.

IDLE SPEED & CO% LEVEL SPECIFICATIONS

Application	RPM	CO%
Man. Trans.	900	1.0-1.5
Auto. Trans.	800	0.5-1.0

FUEL PUMP

FUEL PUMP SPECIFICATIONS

Application	Specification
Pressure	30 psi (2.1 kg/cm ²)
Volume	1.8 pts. in 30 sec.

1974-79 TUNE-UP PROCEDURES

Volvo 6-Cylinder (Cont.)

EXHAUST EMISSION SYSTEMS

See appropriate articles in EXHAUST EMISSION SYSTEMS section.

IGNITION SYSTEM

DISTRIBUTOR

Models are equipped with Bosch single-point distributors or Bosch electronic ignition system.

Other Data & Specifications – See appropriate Bosch ignition system article in DISTRIBUTORS & IGNITION SYSTEMS section.

IGNITION COIL

IGNITION COIL SPECIFICATIONS

Application	Resistance (Ohms)
Primary85-.95

FUEL SYSTEM

FUEL INJECTION

Models are equipped with Bosch MPC fuel injection system.

Other Data & Specifications – See Bosch MPC Fuel Injection System in FUEL SYSTEMS section.