

TUNE-UP

280 Series

ENGINE IDENTIFICATION

The engine identification number is located on front left side of engine crankcase.

Engine Code

Application	Code
All Models	110.984

COMPRESSION PRESSURE

Check compression pressure with engine at normal operating temperature, throttle valve fully open and all spark plugs removed. Crank engine at least 8 "puffs" per cylinder.

Compression Pressure Specifications

Application	Pressure psi (kg/cm ²)
Normal	130-144 (9-10)
Minimum	180 (7.5)
Maximum Variation	21 (1.5)

VALVE CLEARANCE

Adjust valves by rotating engine to TDC in the correct firing order.

Valve Clearance Specifications

Application	Intake In. (mm)	Exhaust In. (mm)
Cold .....	.004 (.10)	.010 (.25)
Warm .....	.006 (.15)	.012 (.30)

VALVE ARRANGEMENT

All Models
 Right Side - All Exhaust.
 Left Side - All Intake.

SPARK PLUGS

Application	Gap In. (mm)	Torque Ft. Lbs. (N·m)
All Models .....	.031 (0.8)	22 (30)

Spark Plug Type

Application	Bosch No.	Champion No.
All Models	W9D	N12Y

HIGH TENSION WIRE RESISTANCE

Carefully remove high tension wires from spark plugs and distributor cap. Using an ohmmeter, measure resistance while gently twisting wire. If resistance is not to specifications or fluctuates from infinity to any value, replace wire(s).

Resistance (Ohms) Per Wire

Application	Ohms
All Models	25,000-30,000

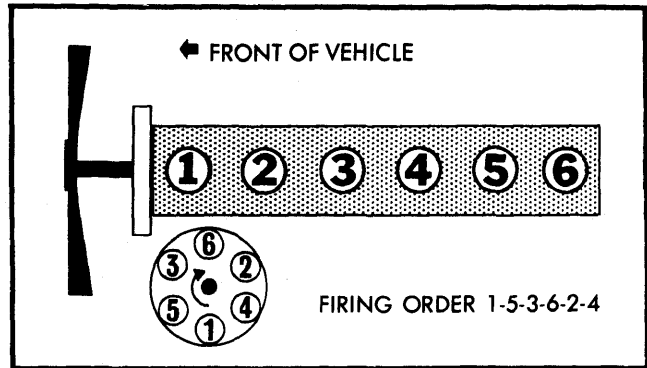


Fig. 1 Firing Order and Distributor Rotation

DISTRIBUTOR

All models are equipped with Bosch breakerless electronic ignition systems.

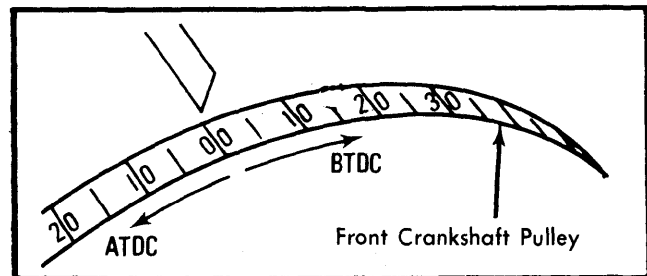


Fig. 2 Ignition Timing Mark Location

IGNITION TIMING

Check or adjust ignition timing with engine at normal operating temperature, idle speed set to specifications and distributor vacuum lines connected.

Ignition Timing Specifications

Application	RPM	Timing
All Models	750	10° BTDC

IDLE SPEED & MIXTURE

IDLE SPEED

1) Connect tachometer and warm engine to normal operating temperature. Turn air conditioning and all electrical accessories off. Place transmission selector in "P" position.

TUNE-UP (Cont.)

2) Ensure throttle valve lever is against idle speed stop. Disconnect rod from cruise control actuator and ensure speed control lever is against idle speed stop, then adjust rod so lever is .039" (1 mm) away from stop.

3) Adjust idle speed using idle speed screw. See Fig. 3.

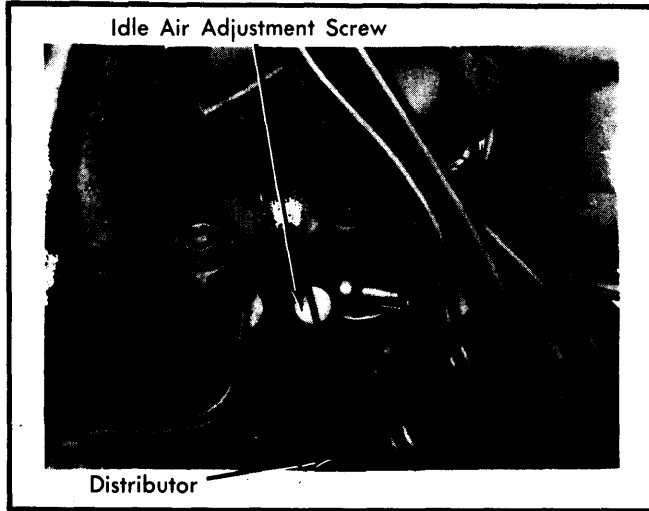


Fig. 3 Idle Air Adjustment Screw

IDLE MIXTURE

NOTE — Mixture control unit adjustment screw opening is plugged to prevent tampering. Adjustment is not a normal maintenance procedure and should not be performed unless mixture control unit is replaced or vehicle fails emissions testing.

1) Warm engine to normal operating temperature and adjust timing and idle speed. Remove cover from diagnostic plug (on fender panel near hood hinge). Connect voltmeter negative lead to pin 3 of plug, and positive lead to battery voltage.

2) Disconnect oxygen sensor plug (near sensor under vehicle). Observe voltmeter reading and place a piece of tape on voltmeter dial to indicate needle position. Needle should not be moving.

NOTE — Oxygen sensor plug is inside a holder. Unscrew holder bolt (if necessary), push plug out of holder, and disconnect.

3) Reconnect oxygen sensor. Needle should vibrate and vibrations should be centered around mark on voltmeter. If not, adjustment is necessary.

4) Remove plug from mixture control unit. Insert hex wrench and adjust mixture screw carefully until needle is centered around mark on voltmeter dial. Remove test equipment and plug adjustment opening.

Idle Speed

Application	RPM
All Models	700-800

FUEL PUMP PRESSURE & VOLUME

Pressure	72-81 psi (5.0-5.6 kg/cm ²)
Volume	1 qt. in 30 sec.

EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

GENERAL SERVICING

IGNITION

DISTRIBUTOR

All models are equipped with Bosch breakerless, transistorized distributors.

IGNITION COIL

Resistance Specifications (Ohms@68°F)

Application	Primary	Secondary
All Models .....	.7 .....	.....

FUEL SYSTEMS

FUEL INJECTION

All models are equipped with Bosch Lambda CIS fuel injection systems with oxygen sensor.

ELECTRICAL

BATTERY

Application	Amp. Hour Rating
All Models	55

Battery Location — In engine compartment.

STARTER

All models are equipped with Bosch starters.

Starter Specifications

Application	Volts	Amps	Test RPM
All Models	11.5	50-80	8300

1981 Mercedes-Benz 6 Tune-Up

GENERAL SERVICING (Cont.)

ALTERNATOR

All models are equipped with Bosch alternators.

Application	Rated Amp. Output
All Models	65

ALTERNATOR REGULATOR

All models are equipped with Bosch electronic voltage regulators with an operating voltage of 13.0-14.5 volts.

BELT ADJUSTMENT

Application	⓪ Deflection
Power Steering Belt .....	.40" (10 mm)
All Other Belts .....	.20" (5 mm)

⓪ — Deflection with 12 lbs. pressure applied midway on belt run.

FILTERS

Filter	Service Interval (Miles)
Oil Filter	Replace every 7500
Air Filter	Replace every 30,000
Fuel Filter	Replace every 60,000
Auto. Trans. Filter	Replace every 30,000

CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	6.3 qts.
Cooling System (Includes Heater)	10.6 qts.
Auto. Trans. (Dexron)	5.6 qts.
Rear Axle (SAE 90)	2.1 pts.
Fuel Tank	21.1 gals.