TUNE-UP

Hatchback

ENGINE IDENTIFICATION

Engine identification code is located on bottom line of vehicle identification plate, which is riveted on the panel above right front headlight just under hood.

Application	Code
1600 cc	L4

COMPRESSION PRESSURE

Check compression pressure with engine at normal operating temperature, all spark plugs removed, throttle valve wide open and engine at cranking speed. Compression pressure is within specifications if lowest reading cylinder is at least 75% of highest reading cylinder.

VALVE CLEARANCE

Adjust valves with engine cold. To adjust, turn adjusting screw until correct clearance is obtained.

NOTE – *Do not use go/no-go type feeler gauge. Check clearance fore and aft parallel to crankshaft centerline. Any other method will result in an incorrect reading.*

Adjust valves in the following sequence.

Valves Open	Adjust Valves
No. 1 & 6	No. 3 & 8
No. 2 & 4	No. 5 & 7
No. 3 & 8	No. 1 & 6
No. 5 & 7	No. 2 & 4

Valve Clearance

Application	Clearance
Intake	①.010" (.25 mm)
Exhaust	①.021" (.53 mm)

① – Adjust with engine cold.

VALVE ARRANGEMENT

E-I-I-E-E-I-I-E

SPARK PLUGS

Application	Gap In. (mm)	Torque Ft. Lbs. (mkg)
All Models	.032 (.8)	15 (2.1)

Spark Plug Type

Application	Autolite No.
All Models	AWSF-32

HIGH TENSION WIRE RESISTANCE

Remove distributor cap from distributor, but do not disconnect high tension wires from cap. Disconnect high tension wires from spark plugs. Using an ohmmeter, check resistance from contact at spark plug end of wires to contact inside of distributor cap. Resistance should be less than 4100 ohms per inch. If not, disconnect wire from cap and recheck. Replace wire if not within specifications.

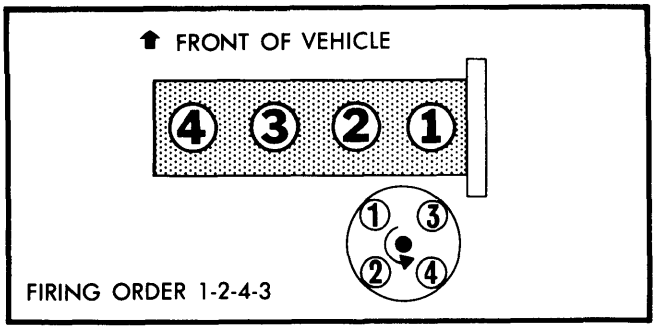

Fig. 1 Firing Order and Distributor Rotation

DISTRIBUTOR

All models are equipped with Dura Spark II ignition system. No adjustments are required.

IGNITION TIMING

Check and adjust ignition timing with engine at normal operating temperature, idle speed set to specification and distributor vacuum hose disconnected and plugged.

Ignition Timing Specifications

Application	Timing
All Models	12° BTDC

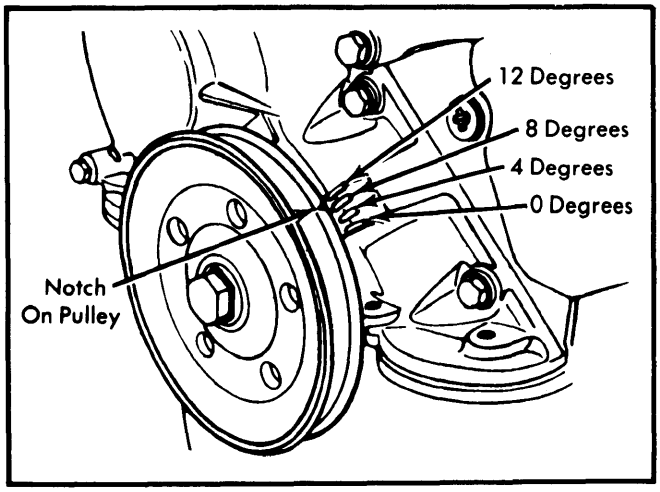

Fig. 2 Ignition Timing Mark Location

TUNE-UP (Cont.)

HOT (SLOW) IDLE RPM

1) With engine at normal operating temperature, connect tachometer and install jumper wire across fan switch so fan runs constantly. Remove air cleaner. If equipped with a spark delay valve in distributor vacuum line, remove valve and connect hoses together.

2) If equipped with EGR ported vacuum switch, disconnect and plug EGR hose at EGR valve. If no PVS, do not disconnect EGR. Turn off all accessories.

3) Accelerate engine to 2500 RPM for 15 seconds, then return to idle. Adjust to correct RPM with idle speed screw.

4) Dashpot clearance must be adjusted each time idle speed is changed. Collapse dashpot and measure clearance between throttle and plunger. Adjust to .19-.21" (4.8-5.2 mm). Recheck idle speed, remove test equipment, and replace air cleaner and hoses.

Idle Speed

Application	Curb Idle RPM
All Models	850

IDLE MIXTURE

PROPANE ENRICHMENT PROCEDURE

1) Apply parking brake and block drive wheels. Air cleaner may be removed as necessary to make adjustments; however, be sure to remove No. 3 and 4 spark plug wires from snorkel first.

2) Connect suitable tachometer and bring engine to normal operating temperature. Disconnect radiator fan switch and attach a jumper wire so fan operates continuously.

3) Disconnect fuel evaporation hose at air cleaner and plug nipple. Disconnect crankcase ventilation hose at air cleaner and plug hole. Remove fresh air hose from air cleaner and insert propane supply hose into air cleaner opening.

4) If equipped with dump valve having vacuum lines coming in at sides, disconnect and plug lines. If line enters at top and does NOT come directly from intake manifold vacuum, disconnect line, then connect a line between valve and manifold vacuum. Set curb idle to specification.

5) Gradually open propane valve and note RPM gain. If within "RPM Gain" specifications, no adjustment is necessary.

6) If gain is higher than specified, turn mixture screw counterclockwise slightly (richen) and retest until gain matches "Reset RPM" specification. If gain is lower, turn mixture screw clockwise (lean) and retest until gain matches "Reset RPM" speed.

7) When RPM gain is set correctly, install cap on mixture screw. Reconnect vacuum hoses, check idle speed, and remove test equipment.

Propane Enriched Mixture Specifications

Application	RPM Gain	Reset RPM
All Models	100-130	115

COLD (FAST) IDLE RPM

1) With engine at normal operating temperature, disconnect and plug all hoses at air cleaner and remove air cleaner. Connect tachometer and install a jumper wire across fan switch so fan runs constantly.

2) If equipped with spark delay valve in distributor vacuum line, remove valve and connect hoses together. If equipped with EGR ported vacuum switch, disconnect and plug vacuum hose at EGR valve. If no EGR PVS, DO NOT disconnect EGR valve.

3) With engine running at normal operating temperature, ensure that choke plates are fully opened. Place fast idle screw on kickdown step (against shoulder of highest step) of fast idle cam.

NOTE – *Cam steps are visible through hole in choke housing.*

4) Check fast idle RPM. If not within 100 RPM of specification, loosen fast idle screw lock nut and turn screw as necessary to obtain specified RPM. Tighten lock nut.

5) Run engine at 2500 RPM for several seconds. Recheck RPM and readjust if necessary. Restore all hoses and components to original positions.

Fast Idle RPM

Application	RPM
All Models	2000

AUTOMATIC CHOKE SETTING

Application	Setting
All Models	INDEX

FUEL PUMP PRESSURE & VOLUME

Pressure (At Idle) ..... 3.5-6.0 psi (.25-.42 kg/cm²)
Volume (At Idle) ..... 1 pt./min.

EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

GENERAL SERVICING

IGNITION

DISTRIBUTOR

All models are equipped with Motorcraft Dura-Spark II breakerless, electronic ignition system.

Other Data & Specifications – *See Tune-Up article and appropriate article in DISTRIBUTORS & IGNITION SYSTEMS section.*

IGNITION COIL

Coil Resistance (Ohms@68° F)

Application	Primary	Secondary
All Models	1.13-1.23	7700-9300

FUEL SYSTEMS

CARBURETORS

Application	Model
All Models	Weber Model 740 2-Bbl.

Other Data & Specifications – *See Tune-Up and Weber Carburetors in FUEL SYSTEMS Section.*

ELECTRICAL

BATTERY

Battery Location – Battery is located at right front corner of engine compartment.

Application	Amp. Hr. Rating
All Models	43

STARTER

Bosch Pre-Engaged Type.

Maximum Current Draw ..... 350 Amps.

ALTERNATOR

Air conditioned models are equipped with Bosch alternators. All other models are equipped with Motorcraft alternators.

Application	Rated Amp. Output
Bosch	55
Motorcraft	
Color Code Orange	40
Color Code Green	60

ALTERNATOR REGULATOR

Air conditioned models are equipped with Bosch alternator regulators. All other models are equipped with Motorcraft alternator regulators.

Operating Voltage 13.6-14.5

ENGINE

BELT ADJUSTMENT

Belts with a span of more than 12 inches should deflect 1/8-1/2" (3-12 mm) when depressed firmly with thumb. Belts with shorter span should deflect 1/8-1/4" (3-6 mm).

FILTERS

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

CAPACITIES

Application	Quantity
Crankcase (Includes filter)	3.3 qts.
Cooling System (Includes heater)	7.6 qts.
Transaxle (ATF)	5.0 pts.
Fuel Tank	10.0 gals.