1974-79 TUNE-UP PROCEDURES
Ford Motor Co. 4-Cylinder

Courier

ENGINE IDENTIFICATION

The engine identification number is stamped on right side of engine block below distributor and on model identification plate attached to body at right, rear corner of engine compartment. Engine model code is the 4th character of identification number.

ENGINE IDENTIFICATION CODE

Application	Code
1979	
2000 cc	C
2300 cc	B

MODEL IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

Vehicle identification number is stamped on model identification plate which is attached to body at right, rear corner of engine compartment.

ENGINE COMPRESSION

Check compression pressure with engine oil 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 more than 75% of highest.

VALVE CLEARANCE

Adjust valve clearance on 1800 cc and 2000 cc engines with engine off and at normal operating temperature. All 2300 cc engines are equipped with hydraulic valve lifters which require no adjustment during engine tune-up.

VALVE CLEARANCE

Application	Clearance In. (mm)
Intake & Exhaust	.012" (.30 mm)

VALVE ARRANGEMENT

1800 cc & 2000 cc
Right Side - All Exhaust.
Left Side - All Intake.
2300 cc
E-I-E-I-E-I-E-I - Front-to-rear.

SPARK PLUGS

SPARK PLUG SPECIFICATIONS

Application	Specification
Gap	.029-.033" (.7-.8 mm)
Torque	10-16 ft. lbs. (14-22 N.m)

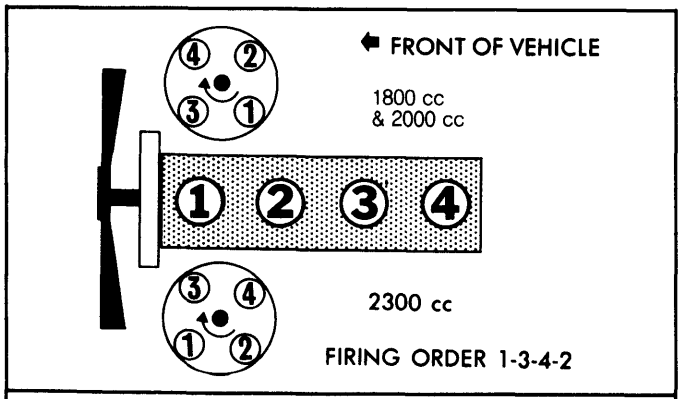

Fig. 1: Distributor Rotation & Firing Order

SPARK PLUG TYPE

Application	NGK No.
1800 cc	BPR6ES
2000 cc	BPR5ES
2300 cc	BPR5EFS

DISTRIBUTOR

The 1800 cc engine is equipped with Mitsubishi single point distributor. The 1977-78 2300 cc engine is equipped with a magnetic pulse distributor. All 1979 models are equipped with breakerless, electronic ignition systems.

DISTRIBUTOR SPECIFICATIONS

Application	Specification
1800 cc	
Point Gap	.018-.022" (.45-55 mm)
Dwell Angle	49-55°
Breaker Arm Spring Tension	17-20 oz. (525-625 g)
Condenser Capacity	.20-.24 mfd.
2000 & 2300 cc	
Armature Tooth-to-Magnetic Pickup Gap	.008-.024" (.2-.6 mm)

HIGH TENSION WIRE RESISTANCE

Carefully remove ends of wire from spark plug and distributor. Using an ohmmeter, check resistance of wire while gently twisting wire. On 1979 models, replace wire if resistance exceeds 570 ohms per inch of wire or if reading fluctuates from infinity to any value.

HIGH TENSION WIRE RESISTANCE

Application	Resistance (Ohms)
1974-78	
All Models	25,000-30,000

IGNITION TIMING

Check or adjust ignition timing with engine at normal operating temperature, at correct idle speed, and with distributor vacuum advance hose(s) disconnected and plugged.

IGNITION TIMING SPECIFICATIONS

Application	Timing (°BTDC)
1800 cc & 2000 cc	[1] 8
2300 cc	6

[1] - Set 1975-77 1800 cc engine to 5°BTDC, 3°BTDC on 1974 models.

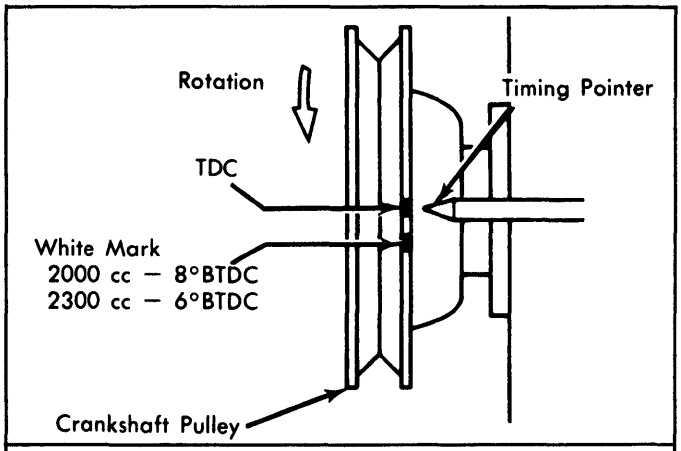

Fig. 2: Typical Ignition Timing Mark Locations

IDLE SPEED & MIXTURE

1974-77 Models - Adjust idle speed and CO% level with engine at normal operating temperature. Connect tachometer and exhaust gas

1974-79 TUNE-UP PROCEDURES
Ford Motor Co. 4-Cylinder (Cont.)

analyzer to vehicle. Set curb idle speed to specifications by turning curb idle adjustment screw. Turn idle mixture screw in or out until correct CO% level is obtained at specified idle RPM.

1978-79 Models - 1) With engine at normal operating temperature and automatic transmission in Drive, connect a tachometer to engine. Detach purge hose between canister and air cleaner (if equipped). Adjust curb idle RPM to specifications using curb idle adjusting screw. **2)** Stop engine. Disconnect hose between air pump and check valve at check valve, and plug check valve port. Start engine and turn idle mixture adjusting screw to obtain specified CO% level. Reconnect hoses. Recheck idle speed and readjust if necessary.

1974-78 IDLE SPEED & CO% LEVEL SPECIFICATIONS

Application	RPM	[1] CO%
1800 cc	700-750	2.0
2300 cc		
Man. Trans.	800-850	4.0
Auto. Trans.	[2] 700-750	4.0

[1] - With air injection hose disconnected.
[2] - With automatic transmission in Drive.

1979 IDLE SPEED & CO% LEVEL SPECIFICATIONS

Application	RPM	[1] CO%
2000 cc	600-700	2.0-4.0
2300 cc		
Man. Trans.	750-850	3.0-5.0
Auto. Trans.	[2] 650-750	3.0-5.0

[1] - With air injection hose disconnected.
[2] - With automatic transmission in Drive.

COLD (FAST) IDLE RPM

1974-78 Models - With choke valve fully closed, measure clearance between primary throttle plate and wall of throttle bore. If clearance is not within specifications, bend fast idle lever where it contacts throttle lever tang until proper clearance is obtained.

1979 Models - With choke valve fully closed, position fast idle screw on highest step of fast idle cam. Measure clearance between lower edge of throttle valve and wall of throttle bore. If clearance is not within specifications, adjust by turning screw clockwise to increase clearance, counterclockwise to decrease clearance.

FAST IDLE SPECIFICATIONS

Application	Clearance
1974-76	
All Models	.063-.067" (1.6-1.7 mm)
1977	
Federal	.071" (1.8 mm)
Calif.	.067" (1.7 mm)
1978	
1800 cc	.071" (1.8 mm)
2300 cc	
Federal	.071" (1.8 mm)
Calif.	.062" (1.6 mm)
1979	
2000 cc	.005" (1.4 mm)
2300 cc	.062" (1.6 mm)

DASHPOT ADJUSTMENT

1977-79 Models - 1) Ensure engine idle speed and carburetor mixture are properly set before dashpot is adjusted. With engine at normal operating temperature, remove air cleaner and attach a tachometer to engine. With engine running, move throttle lever until it contacts dashpot rod.

2) Engine speed should be within specifications. If engine speed is not within specifications, loosen dashpot lock nut. Hold throttle lever to maintain correct engine speed, then turn dashpot until dashpot rod contacts throttle lever. Tighten lock nut and recheck dashpot adjustment.

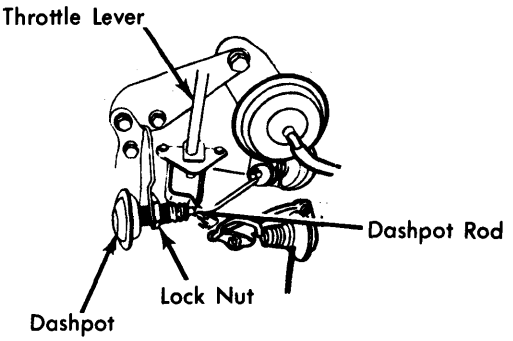

Fig. 3: Dashpot Adjustment

DASHPOT ADJUSTMENT SPECIFICATIONS

Application	RPM
Federal	2400-2600
Calif.	2100-2300

FUEL PUMP

FUEL PUMP SPECIFICATIONS

Application	Specification
Pressure	2.8-3.6 psi (.20-.25 kg/cm²)
Volume	1 pt. in 30 seconds

EXHAUST EMISSION SYSTEMS

See appropriate articles in EXHAUST EMISSION SYSTEMS section.

IGNITION SYSTEM

DISTRIBUTOR

Vehicles are equipped with Mitsubishi single point distributors or Mitsubishi Electronic Ignition system.

Other Data & Specifications - See Mitsubishi Single Point Distributors or Mitsubishi Electronic Ignition System article in DISTRIBUTORS & IGNITION SYSTEMS section.

IGNITION COIL

IGNITION COIL SPECIFICATIONS

Application	Resistance
Primary	
1800 cc	1.42 Ohms
2000 cc & 2300 cc	.81-.99 Ohms
Secondary	
1800 cc	8610 Ohms
2000 cc & 2300 cc	6800-9200 Ohms

FUEL SYSTEMS

CARBURETORS

CARBURETORS

Application	Model
1974-76	
All Models	Nikki (Stromberg) 2-Bbl.
1977-78	
All Models	Hitachi DCJ 328 2-Bbl.
1979	
2000 cc	Nikki 2-Bbl.
2300 cc	Hitachi DCS 328 2-Bbl.

Other Data & Specifications - See Hitachi or Nikki (Stromberg) Carburetors in FUEL SYSTEMS section.