1974-79 TUNE-UP PROCEDURES
Triumph 6-Cylinder

1974-75 TR6

ENGINE IDENTIFICATION

Engine number is stamped on a machined flange, on left side of engine block.

ENGINE CODES

Application	Code
All Models	CC, CF

MODEL IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

Vehicle Identification Number is stamped on a plate attached to left door latch. Number also appears on a plate attached to left front corner of instrument panel pad and visible through windshield.

ENGINE COMPRESSION

Warm engine to normal operating temperature. Check compression with spark plugs removed and throttle valve wide open. Crank engine through at least 4 compression strokes on each cylinder. Cylinders should be within 10 psi (0.7 kg/cm²) of each other.

VALVE CLEARANCE

Adjust valves with engine cold. Rotate crankshaft until valves in first column are fully open and adjust valves listed in second column. See VALVE CLEARANCE ADJUSTMENT SEQUENCE table. Valves are numbered from front to rear.

VALVE CLEARANCE ADJUSTMENT SEQUENCE

Valves Open	Adjust Valves
10 & 12	1 & 3
2 & 5	8 & 11
7 & 9	4 & 6
1 & 3	10 & 12
8 & 11	2 & 5
4 & 6	7 & 9

VALVE CLEARANCE SPECIFICATIONS

Application	Clearance In. (mm)
Intake	.010 (.25)
Exhaust	.010 (.25)

VALVE ARRANGEMENT

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

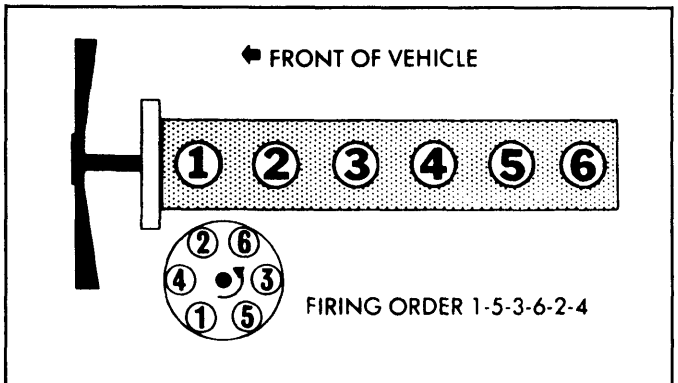

Fig. 1: Firing Order & Distributor Rotation

SPARK PLUGS

SPARK PLUG SPECIFICATIONS

Application	Specification
Gap	.025" (.64 mm)
Torque	14-20 ft. lbs. (19-27 N.m)

SPARK PLUG TYPE

Application	Champion No.
All Models	N9Y

DISTRIBUTOR

Models are equipped with Lucas single-point distributors.

DISTRIBUTOR

Application	Specification
Point Gap	.014-.016" (.35-.41 mm)
Dwell Angle	32-38°
Breaker Arm Spring Tension	18-24 oz. (510-680 g)
Condenser Capacity	.20 mfd.

IGNITION TIMING

Connect timing light and tachometer to engine. Warm engine to normal operating temperature. With distributor vacuum retard hose connected, adjust ignition timing to specifications.

IGNITION TIMING SPECIFICATIONS

Application	RPM	Timing
All Models	800-850	4°ATDC

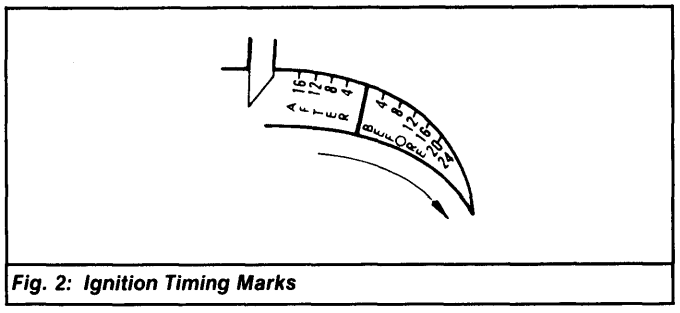

Fig. 2: Ignition Timing Marks

IDLE SPEED & MIXTURE

1974 Models - 1) Ensure that fast idle screw is clear of fast idle cam. With choke control knob seated, make sure choke lever is against stop. Adjust idle screw until throttle is just closed.

2) Turn idle screw 1 1/2 turns to achieve basic setting. Start and warm engine to normal operating temperature. Make final adjustment to idle by turning idle mixture screw to obtain a constant 800-850 RPM.

3) Connect exhaust gas analyzer to vehicle. Check CO% level. If CO% level is incorrect, remove piston damper from carburetors. *See Fig. 3.* Carefully insert Needle Adjuster (S 353) into damper until outer adjuster engages air valve and inner portion engages hexagon in needle.

4) Hold outer adjuster stationary and turn inner portion clockwise to richen mixture or counterclockwise to lean mixture until CO% level is within limits. Remove adjuster and reinstall damper. Recheck CO% level and idle RPM and adjust as necessary.

1975 Models - 1) Remove air cleaner. Ensure oil in carburetor damper is 1/4" below top of damper tube. Warm engine to normal operating temperature. Connect tachometer and exhaust gas analyzer to vehicle. Back off on fast idle adjusting screw until it no longer contacts fast idle cam.

2) Disconnect interconnecting links. Use a carburetor synchronizer and balance air flow between carburetors by turning idle screws. Reconnect links and recheck air flow at each carburetor. Adjust idle speed to specifications and install air cleaner.

1974-79 TUNE-UP PROCEDURES
Triumph 6-Cylinder (Cont.)

3) Disconnect and plug air pump outlet hose. Check CO% level. If CO% level is incorrect, turn fine mixture adjusting screws until CO% level is within limits. If CO% level cannot be adjusted within limits by turning fine mixture adjusting screws, go to next step.
4) Remove piston damper from carburetors. *See Fig. 3.* Carefully insert Needle Adjuster (S 353) into damper until outer adjuster engages air valve and inner portion engages hexagon in needle.
5) Hold outer adjuster stationary and turn inner portion clockwise to richen mixture or counterclockwise to lean mixture until CO% level is within limits. Remove adjuster, reinstall damper, and run engine at 2000 RPM for one minute. Recheck CO% level and idle RPM and adjust as necessary.

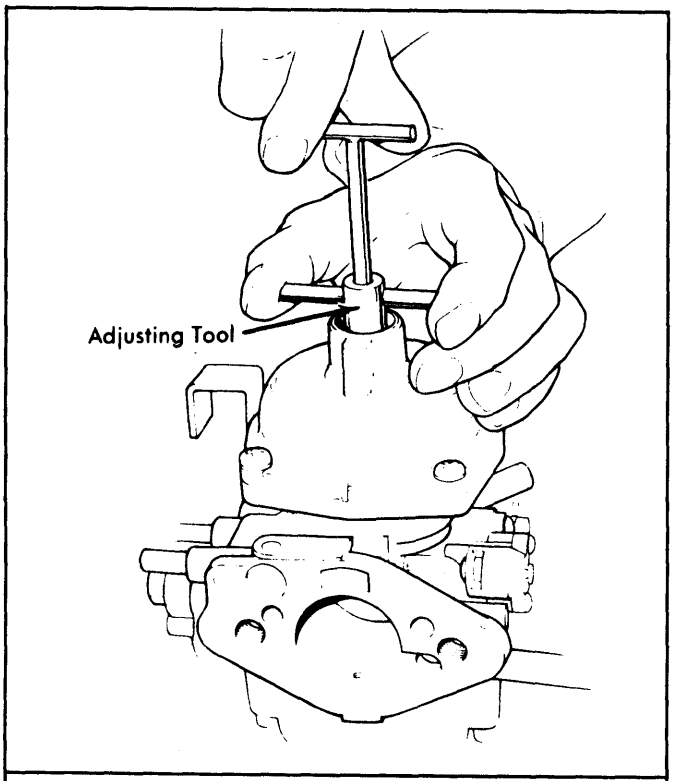

Fig. 3: Idle Mixture Adjustment

IDLE SPEED & CO% LEVEL SPECIFICATIONS

Application	Idle RPM	CO%
All Models	800-850	1.0-3.0

COLD (FAST) IDLE RPM

1974 Models - 1) Check that choke lever on each carburetor is against stop when choke control knob is pushed all the way in. Adjust cables as necessary to achieve this condition.
2) Pull control knob out until cable trunnion is in alignment with center of fast idle cam adjusting screw and center of starter box. Loosen lock nuts and unscrew both fast idle screws until each is just touching cam.
3) Start engine and turn both fast idle screws equally to obtain specified fast idle speed. Tighten lock nuts and recheck fast idle speed.

FAST IDLE SPECIFICATIONS

Application	RPM
All Models	1100-1300

FUEL PUMP

FUEL PUMP SPECIFICATIONS

Application	Specification
Pressure	1.5-2.5 psi (.11-.18 kg/cm²)
Volume	1.5 pts. in 60 sec.

EXHAUST EMISSION SYSTEMS

See appropriate articles in EXHAUST EMISSION SYSTEMS section.

IGNITION SYSTEM

DISTRIBUTOR

Models are equipped with Lucas single-point distributors.
Other Data & Specifications - See Lucas Distributors in DISTRIBUTORS & IGNITION SYSTEMS section.

FUEL SYSTEM

CARBURETORS

CARBURETORS

Application	Model
All Models	Zenith-Stromberg 1-Bbl.

Other Data & Specifications - See appropriate Zenith-Stromberg Carburetor article in FUEL SYSTEMS section.