TUNE-UP

TR8

ENGINE IDENTIFICATION

Engine number is stamped on left side of block near No. 3 spark plug. The following code prefixes designate US models:

Application	Code
TR8 Carb.	10E, 12E
TR8 Fuel Inj.	14E

COMPRESSION PRESSURE

Check compression with engine warm, spark plugs removed, and throttle wide open. Crank engine through at least 4 compression strokes before taking reading. Minimum pressure should not be less than 135 psi (9.5 kg/cm²).

VALVE CLEARANCE

TR8 engines are equipped with hydraulic valve lifters and no adjustment is necessary.

VALVE ARRANGEMENT

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

SPARK PLUGS

Application	Gap In. (mm)	Torque Ft. Lbs. (mkg)
Carb. Models	.035 (.9)	12 (1.7)
Fuel Inj. Models	.030 (.8)	12 (1.7)

Spark Plug Type

Application	Champion No.
All Models	N12Y

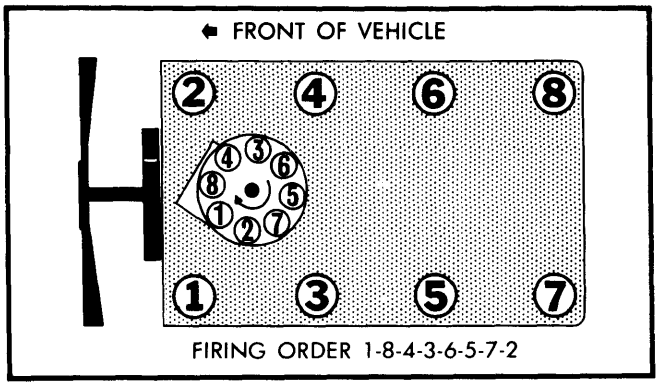

Fig. 1 TR8 Firing Order and Distributor Rotation

HIGH TENSION WIRE RESISTANCE

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

Resistance (Ohms) Per Wire

Application	Ohms
All Models	25,000-30,000

DISTRIBUTOR

All models are equipped with Lucas electronic breakerless ignition systems. The only maintenance is adjusting air gap between timing rotor and pick-up module.

CAUTION – *DO NOT insert feeler gauge into pick-up air gap when the ignition circuit is energized.*

Air Gap ..... .012-.017" (.3-.4 mm)

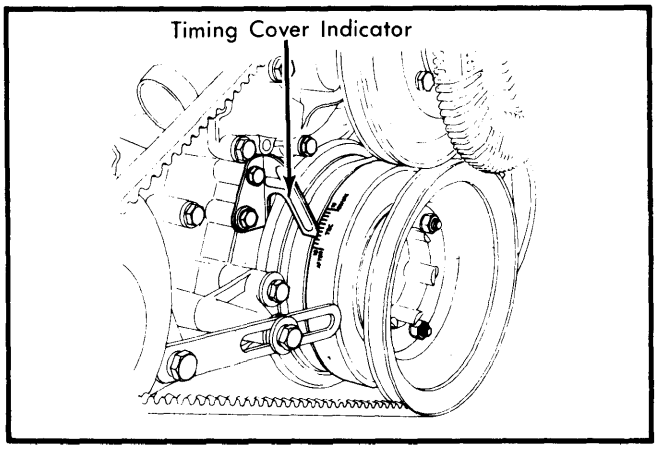

Fig. 2 TR8 Ignition Timing Mark Location

IGNITION TIMING

Check or adjust ignition timing with engine at normal operating temperature, idle speed set to specification, and distributor hoses disconnected. If adjustment is necessary, rotate distributor.

Ignition Timing Specifications

Application	RPM	Timing
Carb. Models	750-900	5° ATDC
Fuel Inj. Models	750-900	TDC

IDLE SPEED & MIXTURE

Carbureted Models – 1) Connect tachometer to engine, then check ignition timing. Warm engine to normal operating temperature and remove air cleaners. Disconnect throttle rod and connecting rod between carburetors.

2) Turn linkage adjusting screw until it is clear of spring-loaded pad. Check to ensure automatic choke is off, then adjust idle speed and balance using air flow meter and idle adjusting screws. Reconnect carburetor connecting rod, then hold left carburetor throttle lever against stop. Turn linkage adjusting screw until it hits spring-loaded pad.

3) Connect throttle rod and install air cleaners. Run engine at 2000 RPM for 30 seconds, then disconnect hoses from air pump and clamp ends of hoses. DO NOT plug air pump outlets. Insert CO meter probe into either tailpipe at least 18 inches.

TUNE-UP (Cont.)

4) Check CO level. If adjustment is necessary, remove piston damper caps. Insert special tool BLT 2010 into damper and hold outer part engaged. Turn inner part of tool clockwise to richen and counterclockwise to lean mixture. Adjust both carburetors evenly until mixture is within specifications.

5) Remove tool, fill pistons with oil, and replace caps. Run engine at 2000 RPM for 30 seconds, then recheck mixture and idle speed. Remove test equipment and reconnect air pump hoses.

Fuel Injected Models – 1) Adjust timing and run engine until normal operating temperature is reached. Connect tachometer and connect CO meter to manifold test points. Loosen lock nut and turn idle adjustment screw (on air flow meter) to adjust idle speed.

2) To adjust mixture, remove plug from air flow meter. Turn adjustment screw until mixture is correct, then replace plug. Recheck idle speed and remove test equipment.

Idle Speed & CO Level

Application	RPM	CO%
Carb. Models	800	2.5-5.5
Fuel Inj. Models	800	0.2

COLD (FAST) IDLE RPM

Fast idle cam gap adjustment is factory set and should not be changed.

FUEL PUMP PRESSURE

Pressure (At Idle)

Carb. Models	2.5-3.5 psi (.18-.24 kg/cm²)
Fuel Inj. Models	36 psi (2.5 kg/cm²)

EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

GENERAL SERVICING

IGNITION

DISTRIBUTOR

All models are equipped with Lucas Opus 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	.9-1.1	.....

FUEL SYSTEMS

CARBURETORS

Application	Model
TR8	2 Zenith-Stromberg CDSET

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

FUEL INJECTION

All models are equipped with Bosch Air Flow Controlled fuel injection systems with oxygen sensor.

Other Data & Specifications – *See Bosch AFC Fuel Injection in FUEL SYSTEMS Section.*

ELECTRICAL

Battery Location – Battery is located in trunk.

Application	Amp. Hr. Capacity
All Models	68

STARTER

Lucas ..... Overrunning clutch

Starter Specifications

Application	Volts	Amps	Test RPM
All Models	12	65	6000

Other Data & Specifications – *See Lucas Starters in ELECTRICAL Section.*

ALTERNATOR

Application	Rated Amp. Output
All Models	65

ALTERNATOR REGULATOR

All models are equipped with Lucas integral alternator regulators.

BELT ADJUSTMENT

Application	①Deflection
Alternator	.5-.75" (13-19 mm)
A/C & Power Steering	.75-1.0" (19-25 mm)

① – Deflection is with moderate pressure applied midway on longest belt run.

GENERAL SERVICING (Cont.)

FILTERS

Application	Service Interval (Miles)
Oil Filter	Replace every 7500
Air Filter	Replace every 36,000
Crankcase Breather Filter	Replace every 36,000
Fuel Filter	Replace every 36,000

CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	5.4 qts.
Cooling System (Includes Heater)	11.5 qts.
Man. Trans. (SAE 75)	3.3 pts.
Rear Axle (SAE 75)	3.3 pts.
Fuel Tank	14.4 gals.