

TUNE-UP

XJS

ENGINE IDENTIFICATION

Engine number is stamped on top rear of cylinder block, between cylinder heads.

ENGINE COMPRESSION

Check compression pressure with battery fully charged, engine at normal operating temperature, throttle fully open and engine at cranking speed.

COMPRESSION SPECIFICATIONS

Compression Pressure 1 225 psi (15.8 kg/cm²)
 Maximum Variation 5 psi (.4 kg/cm²)

1 — Use as guideline only.

VALVE CLEARANCE

1) Adjust valves with engine cold. Remove valve covers and check that camshaft bearing caps are tightened to correct torque. Check clearance between heel of cam and valve tappet.

2) Subtract correct valve clearance from clearance obtained. See *Valve Clearance Specifications table*. Select adjusting pads equal to measurement and install under tappet.

3) Adjusting pads are available in widths from .085-.110" (2.16-2.79 mm) in increments of .001" (.03 mm). Pads are coded with letters A to Z, each letter corresponding to a thickness increase of 1 size.

VALVE CLEARANCE SPECIFICATIONS

Application	Clearance In. (mm)
Intake & Exhaust (Cold) .....	.010-.012 (.25-.30)

VALVE ARRANGEMENT

Right Side — E-I-E-I-E-I-E-I-E-I-E
 Left Side — E-I-E-I-E-I-E-I-E-I-E

SPARK PLUGS

SPARK PLUG TYPE

Application	Champion No.
All Models	BN5

SPARK PLUG SPECIFICATIONS

Application	Gap In. (mm)	Torque Ft. Lbs. (N.m)
All Models .....	.025 (.64)	27 (37)

DISTRIBUTOR

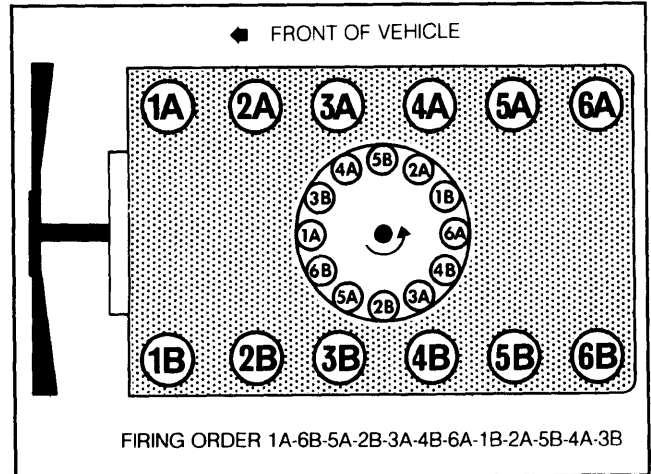
All models are equipped with Lucas Constant Energy Ignition System. Under normal operating condi-

tions, no adjustments are necessary. However, if the unit has been disassembled, check air gap between reluctor and pick-up module and adjust as needed.

PICK-UP COIL AIR GAP

Application	Gap In. (mm)
All Models .....	.008-.014 (.20-.35)

Fig. 1: Firing Order and Distributor Rotation



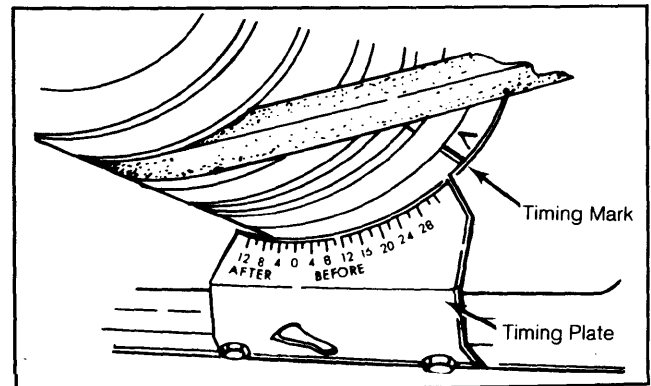
IGNITION TIMING

With engine at normal operating temperature, connect a timing light and tachometer to vehicle. Disconnect vacuum pipe. Start engine. Check and adjust timing as needed.

IGNITION TIMING (Degrees BTDC@RPM)

Application	Timing
All Models	26@3000

Fig. 2: Ignition Timing Mark Location



IDLE SPEED & MIXTURE

1) Check air filter, ignition timing and valve clearances. Check throttle linkage for proper operation

1982 Jaguar V12 Tune-Up

TUNE-UP (Cont.)

and make sure that return springs are secure and operating.

2) With engine at normal operating temperature, let run at idle for 2-3 minutes. Adjust idle speed as needed with idle speed adjusting screw. Adjusting screw is located in auxiliary air valve.

3) Connect Jaguar Feedback Meter (60973066) to connector plug next to electronic control unit in trunk. Re-activate oxygen sensor circuit by removing plug from lead located close to feedback checking point.

IDLE SPEED & CO LEVEL

Application	Idle RPM	CO%
All Models	750	1.0-2.0

4) Meter lights should agree with meter operating instructions for CO checking. If not, remove plug from Mixture Control Unit and turn adjusting screw until correct CO reading is obtained.

FUEL PUMP

FUEL PUMP PERFORMANCE

Application	Pressure psi (kg/cm ²)
All Models	36 (2.5)

EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

GENERAL SERVICING

IGNITION

DISTRIBUTOR

All models are equipped with Lucas Constant Energy Ignition System. Under normal operating conditions, no adjustments are necessary.

IGNITION COIL

RESISTANCE Ohms@68°F (20°C)

Application	Primary	Secondary
All Models .....	.9-1.1 .....	.....

FUEL SYSTEMS

FUEL INJECTION

All models are equipped with Lucas "P" System electronic fuel injection with dual oxygen sensors.

ELECTRICAL

BATTERY

BATTERY SPECIFICATIONS

Application	Amp. Hr. Rating
All Models	60

STARTER

All models use Lucas pre-engaged starters.

ALTERNATORS

All models use Lucas or Motorola alternators.

ALTERNATOR SPECIFICATIONS

Application	Rated Amp. Output
Lucas 25ACR	66
Motorola 9AR 2533P	70

ALTERNATOR REGULATOR

All models use Lucas or Motorola regulators.

REGULATOR OPERATING VOLTAGE@68°F (20°C)

Application	Voltage
Lucas	13.6-14.4
Motorola	13.7-14.7

SERVICE SPECIFICATIONS

BELT ADJUSTMENT

Application	Pressure Lbs. (kg)	¹ Deflection In. (mm)
Alternator Belt	3.2 (7.0) .....	.15 (3.8)
Air Conditioning Belt	2.9 (6.4) .....	.17 (4.3)
Air Pump Belt	6.9 (15.2) .....	.22 (5.6)
Power Steering Belt	6.4 (14.1) .....	.16 (4.1)

¹ — With indicated pressure applied midway between pulleys on longest belt run.

REPLACEMENT INTERVALS

Component	Miles
Oil Filter	7500
Air Filter	30,000
Fuel Filter	30,000
Auto. Trans. Fluid Filter	30,000
Spark Plugs	30,000

FLUID CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	11.4 qts. (10.3L)
Cooling System (Includes Heater)	21.0 qts. (19.5L)
Auto. Trans. (Dexron)	19.2 pts. (9.1L)
Rear Axle (SAE 90)	3.3 pts. (1.6L)
Fuel Tank	
Left	13 gal. (48L)
Right	13 gal. (48L)