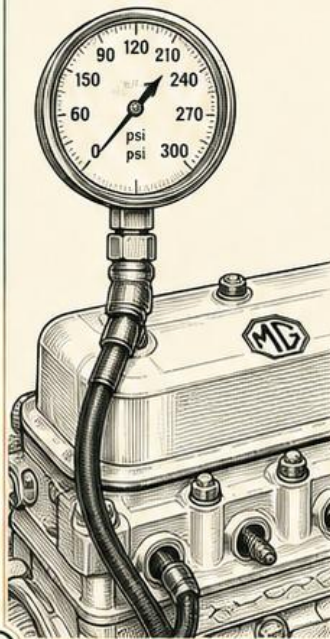


MGA TUNE-UP QUICK REFERENCE GUIDE

Mechanical condition, ignition preparation and distributor setup

1. CHECK COMPRESSION



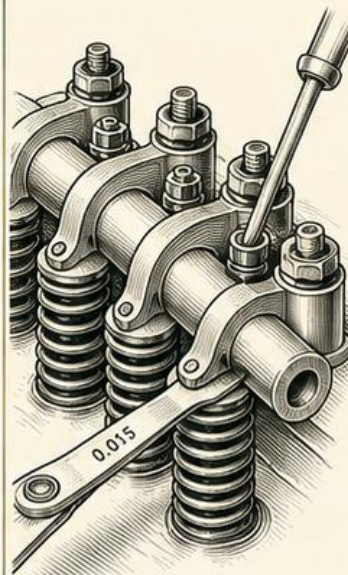
- Warm engine
- Remove all spark plugs
- Turn ignition and fuel pump off
- Test each cylinder

Healthy range:
125-145 psi per cylinder

Cylinder variance:
no more than 10%
between the highest
and lowest reading

Greater variation can
cause a rough idle

2. VALVE CLEARANCES



Clearance

MGA 1500: 0.017 in
MGA 1600: 0.015 in

- Use the Rule of 9
- Adjust the tappet whose opposite valve is fully open, with the spring compressed
- Recheck clearance after tightening the locknut

Tappet cover: tighten
lightly to approximately
5 ft-lbs

3. SPARK PLUGS



- Set plug gap to 0.025 in
- Inspect plug colour and condition
- Light tan or grey = good

Standard replacements

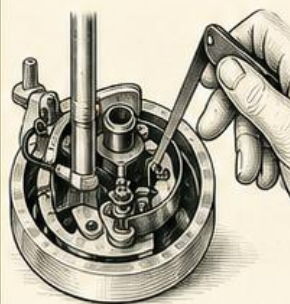
- Champion N5C
- NGK B6ES

Hotter options for road use

- Champion N9YC
- NGK BP5ES

These hotter plugs may help
reduce fouling during frequent
stop-start driving.

4. DWELL AND POINTS



Dwell angle: $60^\circ \pm 3^\circ$

- High dwell = points gap too small
- Low dwell = points gap too large

Points gap: 0.014-0.016 in

Meter connection

- Ground lead to engine ground
- Signal lead to the ignition-coil terminal connected to the distributor

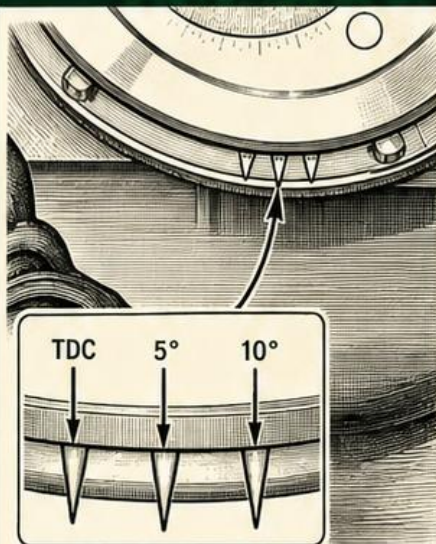
Adjusting points

- Put the contact arm on the peak of one of the four cam lobes
- Set points gap, then recheck dwell

MGA TUNE-UP QUICK REFERENCE GUIDE

Ignition timing, carburettor setup and road-test checks

5. IGNITION TIMING



Dynamic timing

- Disconnect and plug vacuum line
- 800-1000 rpm: 12° BTDC
- 3200-3500 rpm: 32° BTDC
- Do not exceed 34° BTDC

Back down advance if any pinging is heard under load.

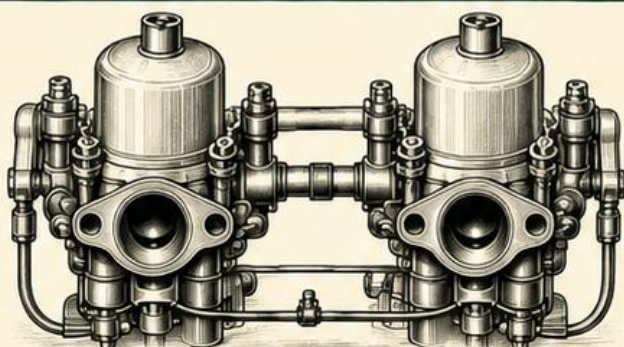
Flywheel marks: TDC, 5°, 10°.

7. TEST DRIVE

- **Smooth acceleration:** no hesitation or flat spots
- **Good response under load:** pulls cleanly without pinging
- **No excessive richness:** no black smoke, strong fuel smell or sluggish response
- **No excessive leanness:** no hesitation, surging, carburettor popping or unusual heat
- **Stable idle:** returns promptly without racing or stalling
- **Clean hot restart:** starts readily without excessive choke or throttle
- **Final plug check:** dry, light tan or grey, not sooty black or very pale/white



6. CARBURETTOR MIXTURE AND SYNC



Front carb (No. 1-2)

Rear carb (No. 3-4)

Synchronise airflow

- Isolate carburetors
- Use a synchronometer on each carburettor
- Adjust throttle-stop screws until both draw the same airflow at idle

Check mixture

Lift the piston about 0.8 mm using the lifting pin or screwdriver.

- Correct:** rpm rises slightly, then settles
- Too lean:** rpm drops and engine stumbles
- Too rich:** rpm rises and remains high

Adjust mixture

Viewed from above:

Clockwise = RICHER

Anti-clockwise = LEANER

- Adjust one flat at a time
- Allow engine to stabilise
- Repeat the piston-lift test

Throttle linkage

- Recheck airflow balance and idle speed
- Set linkage so both carburetors begin to open at the same time

Choke and fast idle

- Pull the choke progressively
- Confirm both jets move down together by about the same amount
- Fast-idle cams should operate before significant jet movement

Remember: From the top, Right = Rich.

CORRECT TUNE-UP ORDER

