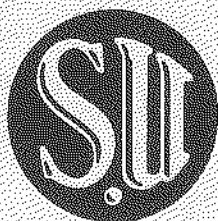


THE



CARBURETTER

Type H

TUNING, ADJUSTING, AND SERVICING
INSTRUCTIONS

MANUFACTURED

by

S.U. CARBURETTER COMPANY

Proprietors: The British Motor Corporation Limited

WOOD LANE · ERDINGTON · BIRMINGHAM 24

TELEPHONE: ERDINGTON 7371 (9 lines)

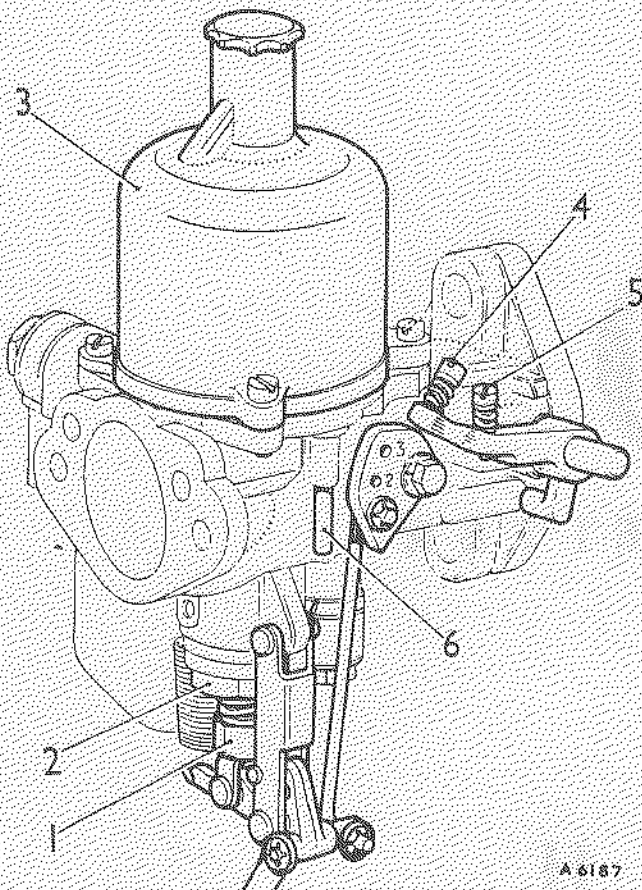
TELEGRAMS: CARBURFLEX, BIRMINGHAM

TELEX: 338342



SERVICE SHEET No. AUG 9612 C.

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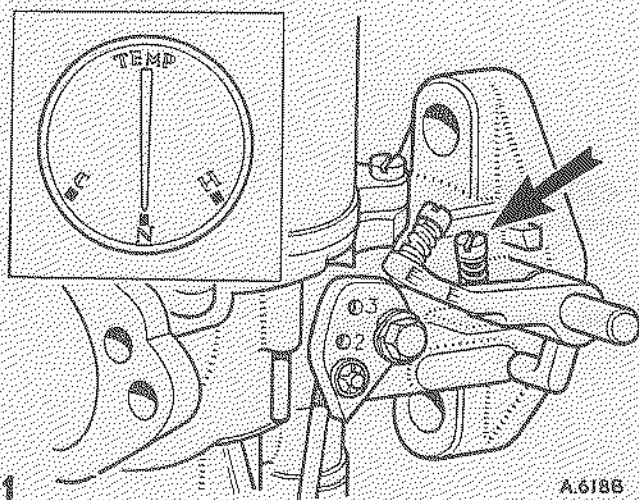
A 6187

The Type H Carburettor

- | | |
|----------------------------|-------------------------------|
| 1. Jet adjusting nut. | 4. Fast-idle adjusting screw. |
| 2. Jet locking nut. | 5. Throttle adjusting screw. |
| 3. Piston/suction chamber. | 6. Piston lifting pin. |

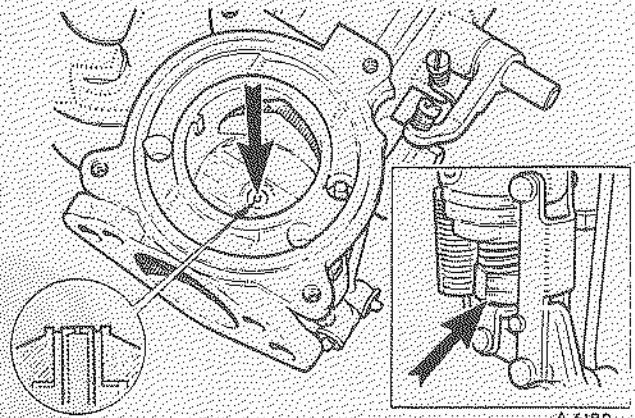
TUNING

Single carburetters



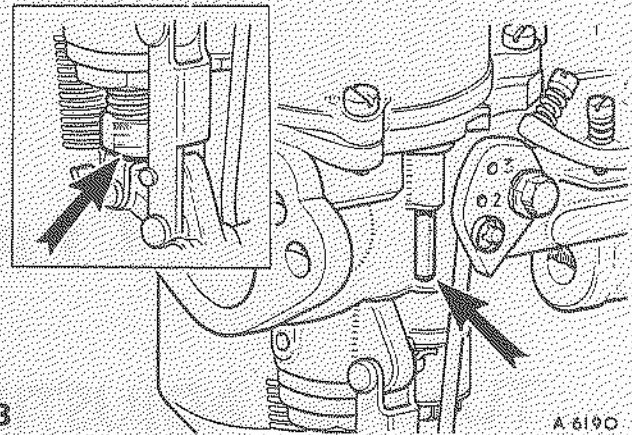
A.6188

- 1
 - A. Warm engine up to normal temperature.
 - B. Switch off engine.
 - C. Unscrew the throttle adjusting screw until it is just clear of its stop and the throttle is closed.
 - D. Set throttle adjusting screw $1\frac{1}{2}$ turns open.



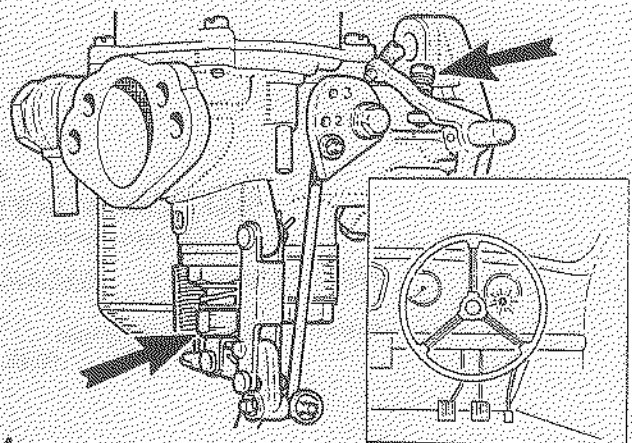
A.6189

- 2
 - A. Mark for reassembly and remove piston/suction chamber unit.
 - B. Disconnect mixture control wire.
 - C. Screw the jet adjusting nut until the jet is flush with the bridge of the carburettor or fully up if this position cannot be obtained.



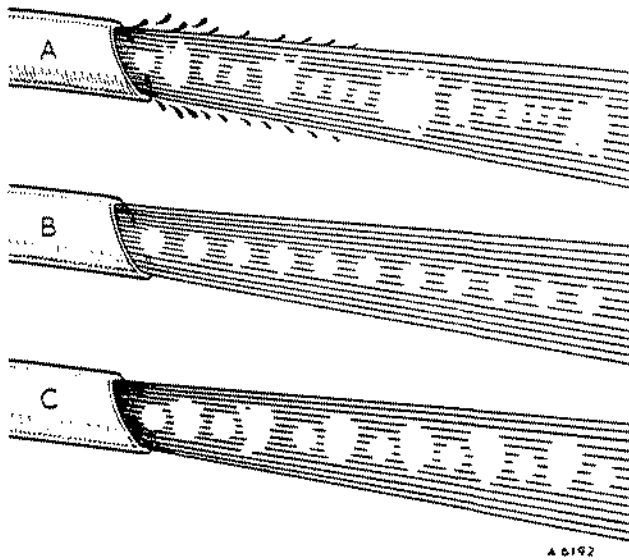
A.6190

- 3
 - A. Replace the piston/suction chamber unit as marked.
 - B. Check that the piston falls freely onto the bridge when the lifting pin is released. If not, see items 15, 16, and 17.
 - C. Turn down the jet adjusting nut two complete turns.



A.6191

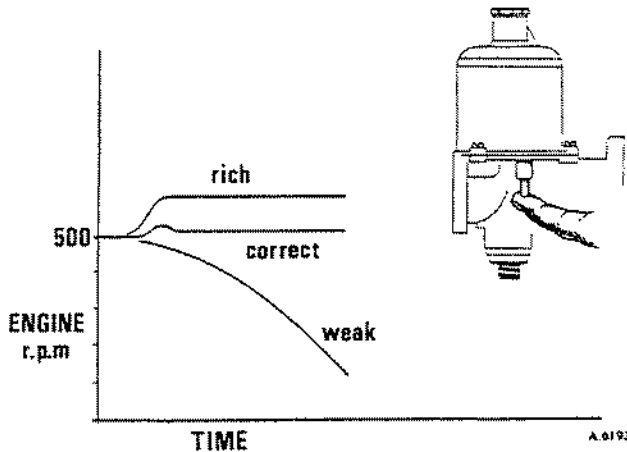
- 4
 - A. Restart the engine and adjust the throttle adjusting screw to give desired idling as indicated by the glow of the ignition warning light.
 - B. Turn the jet adjusting nut up to weaken or down to richen until the fastest idling speed consistent with even running is obtained.
 - C. Re-adjust the throttle adjusting screw to give correct idling if necessary.



5

The effect of mixture strength on exhaust smoke

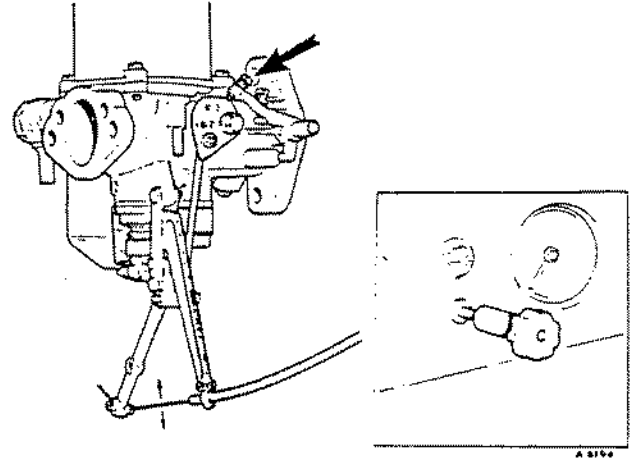
- A. **TOO WEAK:** Irregular note, splashy misfire, and colourless.
- B. **CORRECT:** Regular and even note.
- C. **TOO RICH:** Regular or rhythmical misfire, blackish.



6

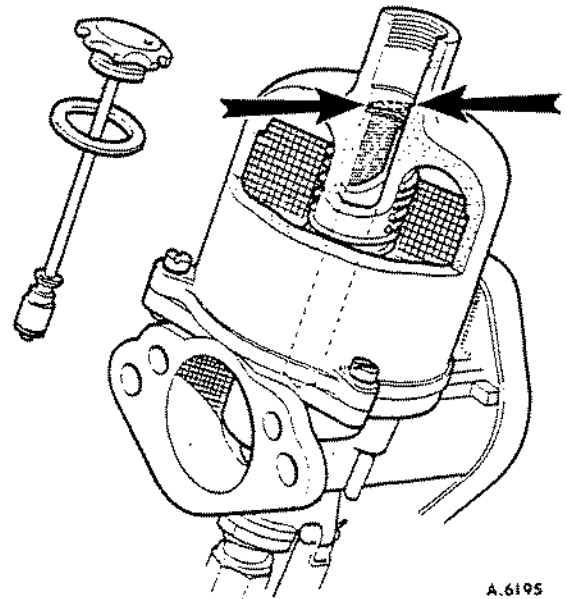
- A. Check for correct mixture by gently pushing the lifting pin up about $\frac{1}{16}$ in. (1.6 mm.).
- B. The graph illustrates the effect on engine r.p.m. when the lifting pin raises the piston, indicating the mixture strength.

RICH MIXTURE:	r.p.m. increase considerably.
CORRECT MIXTURE:	r.p.m. increase very slightly.
WEAK MIXTURE:	r.p.m. immediately decrease.



7

- A. Reconnect the mixture control wire with about $\frac{1}{16}$ in. (1.6 mm.) free movement before it starts to pull on the jet lever.
- B. Pull the mixture control knob until the linkage is about to move the carburettor jet and adjust the fast-idle screw to give an engine speed of about 1,000 r.p.m. when hot.



8

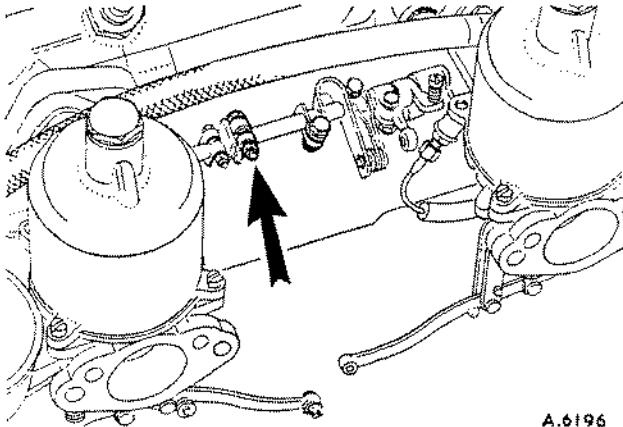
- Finally top up the piston damper with thin engine oil grade S.A.E. 20 until the level is $\frac{1}{2}$ in. (13 mm.) above the top of the hollow piston rod.

Note

On dust-proofed carburetters, identified by a transverse hole drilled in the neck of the suction chambers and no vent hole in the damper cap, the oil level should be $\frac{1}{2}$ in. (13 mm.) below the top of the hollow piston rod.

TUNING Multi-carburettors

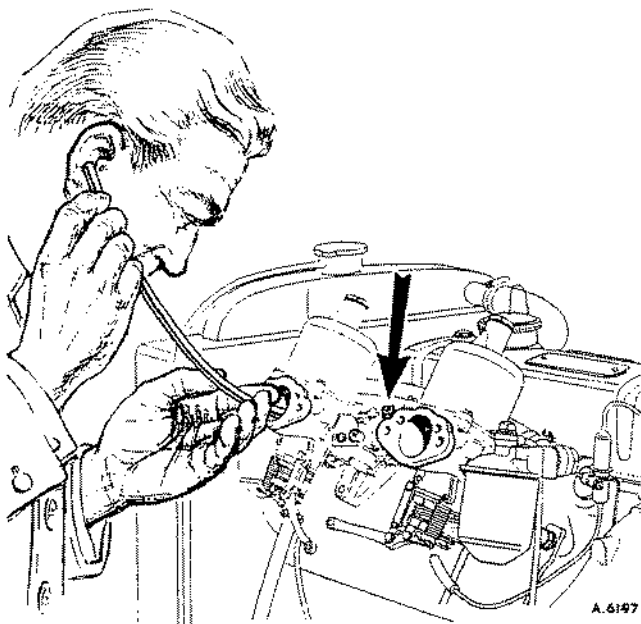
Remove the air cleaners and carry out item 1 as for single on all carburettors then:



A.6196

9

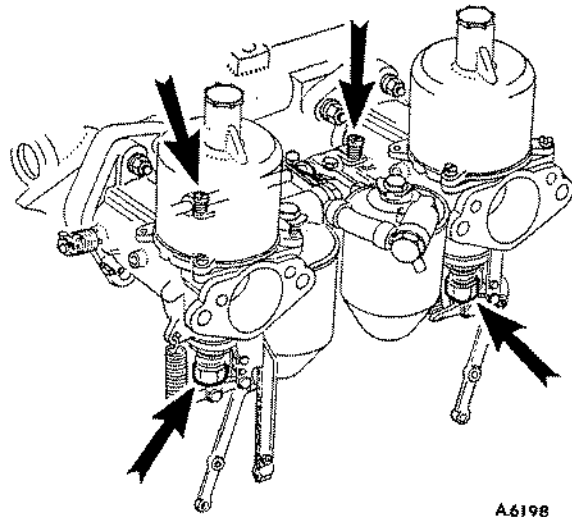
- A. Slacken one of the clamping bolts on the throttle spindle interconnections.
- B. Disconnect the jet control linkage by removing one or, in the case of triple carburettors, two of the linkage swivel pins.
- C. Carry out items 2 and 3 as for single carburettors, then additionally:



A.6197

10

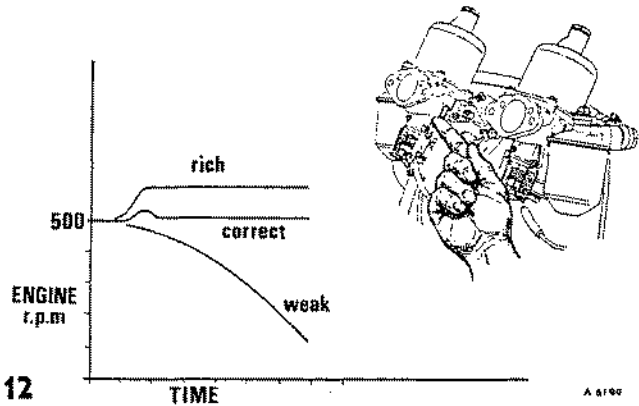
- A. Restart the engine and adjust the throttle adjusting screws on each carburettor to give the desired idling speed of 500 to 600 r.p.m. as recommended by the vehicle manufacturer.
- B. Compare the intensity of the intake 'hiss' on all carburettors and alter the throttle adjusting screws until the 'hiss' is the same.



A.6198

11

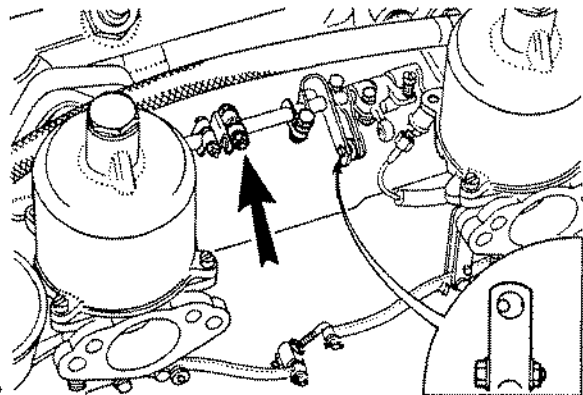
- A. Turn the jet adjusting nuts on all carburettors up to weaken or down to richen the same amount until the fastest idling speed consistent with even running is obtained.
- B. Re-adjust the throttle adjusting screws to give correct idling if necessary.



A.6199

12

- A. Check for correct mixture by gently pushing the lifting pin of the front carburettor up $\frac{1}{8}$ in. (.8 mm.). The graph illustrates the possible effect on engine r.p.m.
- B. Repeat the operation on the rear carburettor and after adjustment re-check the front carburettor since the two are inter-dependent.
- C. Item 5 shows the correct type of exhaust smoke.

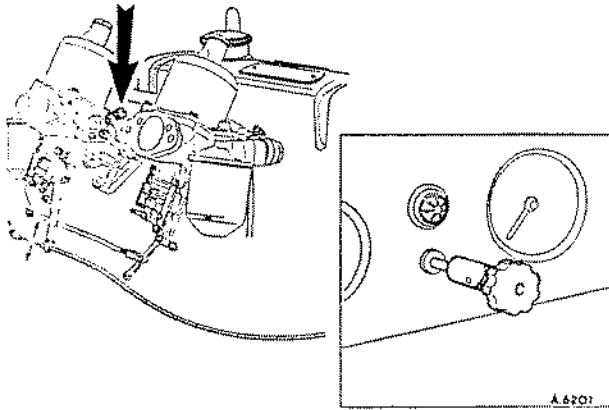


A.6200

13

- A. Tighten the clamp bolt of the throttle spindle interconnections and set the link pin lever with the pin resting against the edge of the pick-up lever hole (see inset). This provides the correct delay in opening the front carburettor throttle disc.
- B. Re-connect the jet control linkage, so that both jets commence to move simultaneously

TUNING Multi-carburettors (continued)



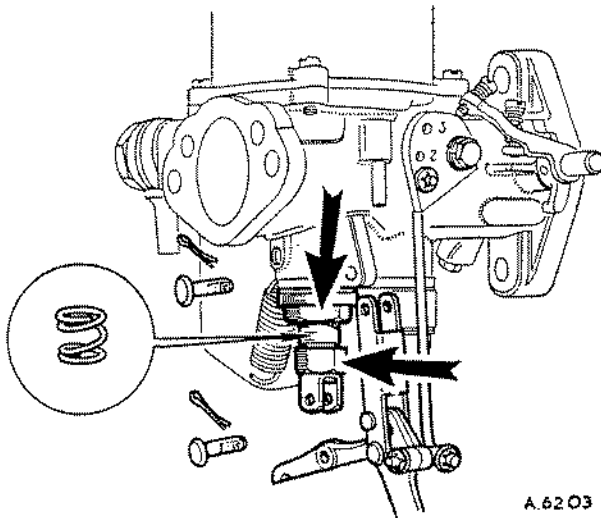
14

- A. Reconnect the mixture control wire with about $\frac{1}{8}$ in. (1.6 mm.) free movement before it starts to pull on the jet levers.
- B. Pull the mixture control knob until the linkage is about to move the carburetter jets, and adjust the fast idle screw to give an engine speed of about 1,000 to 1,200 r.p.m. when hot.
- C. Refit the air cleaners and re-check for correct mixture as described in item 12.

ADJUSTING AND SERVICING Jet Centring

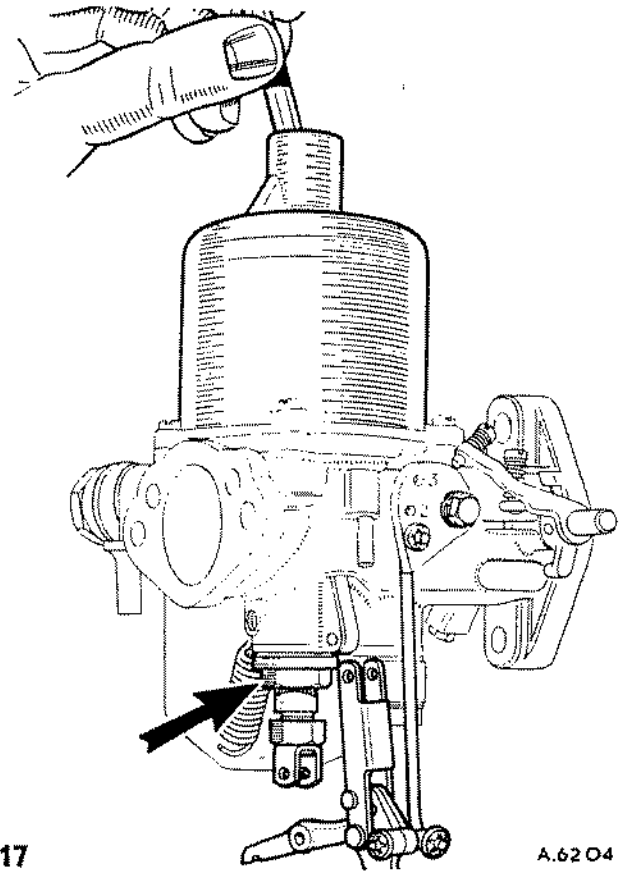
15

The piston should fall freely onto the carburetter bridge with a click when the lifting pin is released with the jet in the fully up position. If it will only do this with the jet lowered then the jet unit requires re-centring. This is done as follows:



16

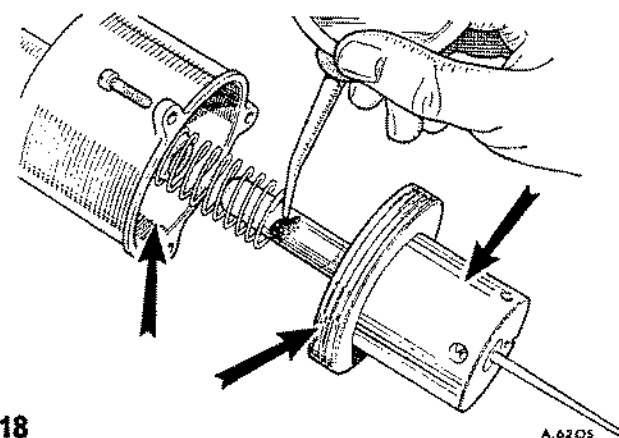
- A. Remove the jet control linkage and swing it to one side.
- B. Mark for reassembly and withdraw the jet, remove the jet locking spring, replace the adjusting nut and screw it up as far as it will go.
- C. Replace the jet, keeping the slot in the jet head in the correct relative position to the control.
- D. Slacken the jet locking nut until the assembly is free to rotate.



17

- A. Remove the piston damper and apply pressure to the top of the piston rod with a pencil.
- B. Tighten the jet locking nut keeping the slot in the jet head in the correct position and the jet hard up against the adjusting nut.
- C. Finally check again as in items 15.
- D. Reassemble the controls.
- E. Refill the piston dampers with thin engine oil. (See item 8.)

Cleaning

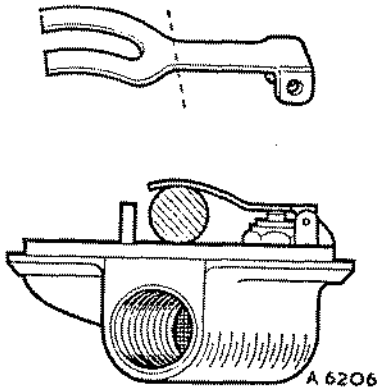


18

- A. At the recommended intervals mark for reassembly and carefully remove the piston/suction chamber unit.
- B. Using a petrol-moistened cloth, clean the inside bore of the suction chamber and the two diameters of the piston.
- C. Lightly oil the piston rod only and reassemble as marked.

ADJUSTING AND SERVICING (continued)

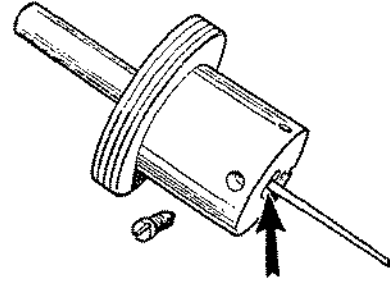
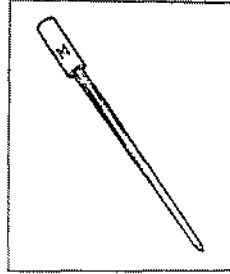
Float chamber fuel level



19

- A. Remove the float chamber lid and invert it.
- B. With the needle on its seating insert a $\frac{1}{8}$ in. (11 mm.) diameter round bar between the forked lever and the lip of the float chamber lid.
- C. The prongs of the lever should just rest on the bar. If not, carefully bend the lever until they do.

Needle size and position



A 6207

20

The needle size is determined during engine development and will provide the correct mixture strength except under extremes of temperature, humidity, or altitude; e.g. a weaker needle will be necessary at altitudes exceeding 6,000 ft. (1800 m.). If modifications are made to the engine; (e.g. camshaft, compression ratio, air cleaner, or exhaust system) a different needle may be necessary to maintain performance.

- A. To check the needle fitted, remove the piston/suction chamber unit.
- B. Slacken the needle clamping screw, extract the needle, and check its identifying mark against the recommendation.
- C. Fit the correct needle and lock it in position so that the shoulder on the shank is flush with the piston base.
- D. Reassemble the piston/suction chamber unit.

Faults

Symptom	Cause	Remedy	Item No.
Erratic running Stalling at idling Lack of power High fuel consumption	Sticking piston: Dirty piston and suction chamber Jet out of centre Bent needle	Clean Re-centre Fit new	18 15, 16, and 17 20
Too rich at idling Fuel leak	Jet gland leakage: Faulty top gland Dirt under top gland washer Faulty bottom gland	Fit new Clean Fit new	See Dismantling and Reassembly Leaflet
Float chamber or jet flooding	Incorrect fuel level Dirty or worn float chamber needle valve Punctured float	Check and reset level Clean or renew valve Fit new	19 See Dismantling and Reassembly Leaflet