THE

CARBURETTER

INDEX OF SERVICE LITERATURE

GENERAL INFORMATION AND IDENTIFICATION

MANUFACTURED
by
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S.U. SERVICE SHEET No. AUC 9793A

INDEX OF CARBURETTER SERVICE LITERATURE

Additional and revised leaflets will be issued from time to time. Record new issues in the spaces provided.

S.U. CARBURETTERS—IDENTIFICATION OF BASIC TYPES

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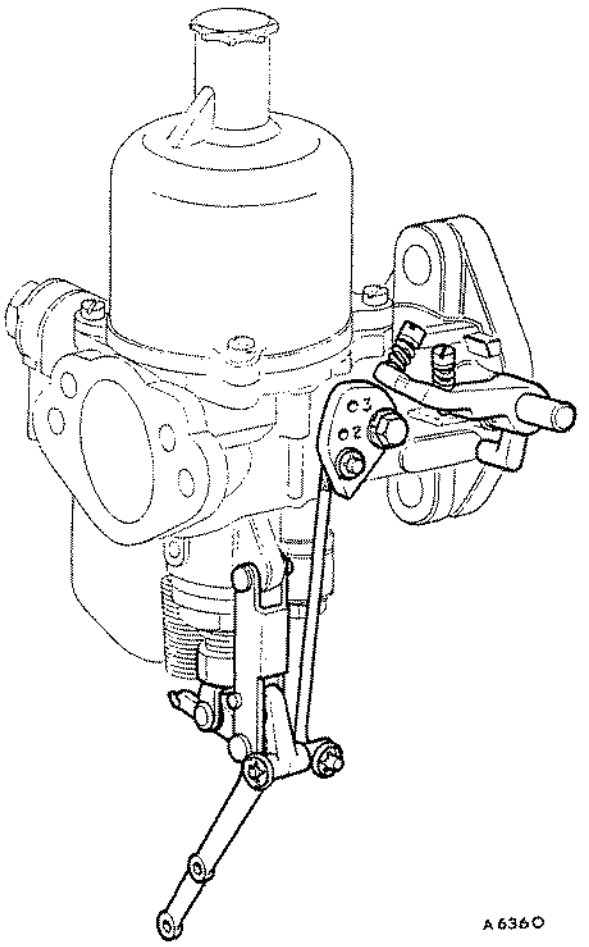
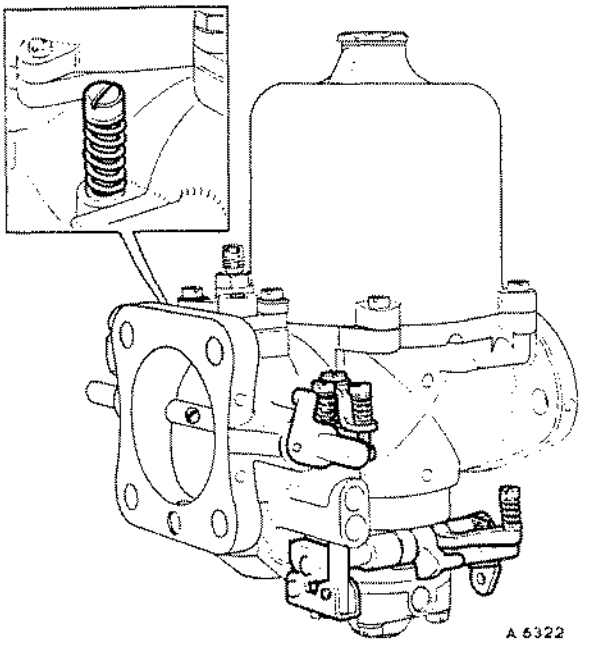


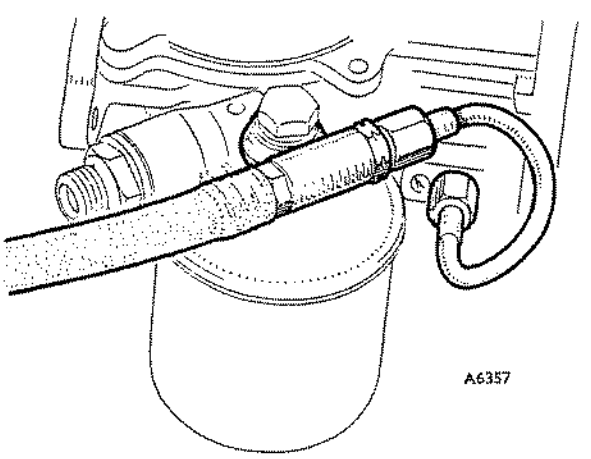
H type

The most familiar. Horizontal or semi-downdraught at 20°, 30° and 45°. **Fuel feed** through hollow float-chamber arm into passages in body, thence to jet assembly. Most **float-chambers** secured to body by a banjo bolt, some later models have flexible mounting between float-chamber arm and carburetter body. The **float** is guided by a fixed stud passing through its centre. **Jet adjustment** over whole range by adjusting nut. **Mixture lever** has an additional link operating a cam and thus the throttle disc, the cam provided with three operating link holes to suit climatic/temperature conditions, lost movement at main pivot point designed to open throttle before jet moves, this allows for semi-warm condition when no enrichment required. **Piston lifting** on earlier models with wire through hole in body below large diameter of piston, later models fitted with lifting pin. **Jet assembly** retained by locking nut, slides in upper and lower bearing each sealed by glands. **Auto-ignition** union provided near throttle disc spindle.



HD type

Similar to H, available horizontal or 30° semi-downdraught. Main difference is in sealing delivery of fuel to jet by means of a diaphragm instead of glands. **The jet** not easily accessible. Throttle disc opening opposite to H type due to **auto-ignition** union position. **Fuel feed** through hollow float-chamber arm. The **float** is guided by a fixed stud passing through its centre. **Idling adjustment** by metering valve screw and/or **throttle stop screw. Jet adjustment** by external screw through forked lever. **Mixture lever** inter-connected to throttle by cam and sliding rod.



Additional Weakening Device

A float-chamber fitment connected by tube to the induction manifold. Used to achieve the required mixture strength under cruising conditions on certain engines.

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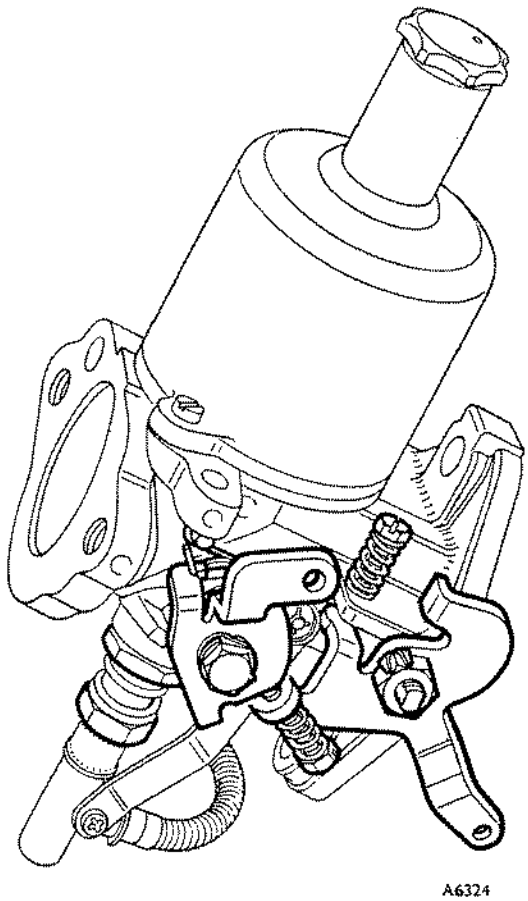
S.U. CARBURETTERS—IDENTIFICATION OF BASIC TYPES

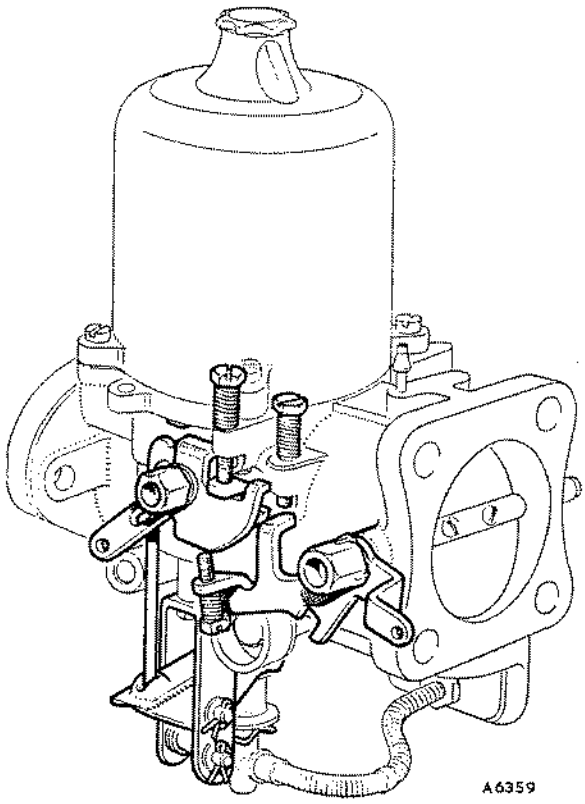
(2)



A6324

HS type

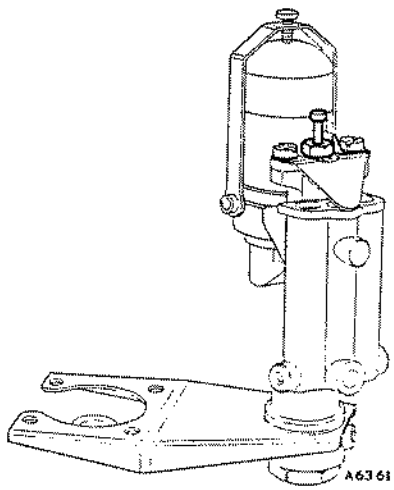
Similar to H type, available horizontal or at 20° or 30° semi-downdraught. Main difference is in **fuel feed** which is through a nylon tube to the jet, gland sealing not used. **Throttle disc** opening in same direction as HD, **auto-ignition** union being above the throttle spindle. **Float-chamber** mounted to body by horizontal bolt and boss about central on the outside of the chamber casting, mounting can be flexible (rubber) or rigid. The brass **float** (earlier type) guided by flutes on the wall of the float-chamber, later types are nylon; hinged to the float-chamber lid. The **float-chamber lid** secured by three screws, fuel connections being 'push-on'. **Jet adjustment** by adjusting nut. **Mixture/throttle interconnection** by cam part of mixture lever. **Jet assembly** retained by locking nut. **Idling adjustment** by screw on throttle stop.



A6359

HS8 type

Similar to HS. Main difference being method of **jet adjustment** which is by remote screw and linkage. **Mixture/throttle interconnection** by cam part of mixture lever. **Jet** retained by lock nut. **Idling adjustment** by screw on throttle stop.



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Auxiliary Enrichment (Thermo) Carburetter

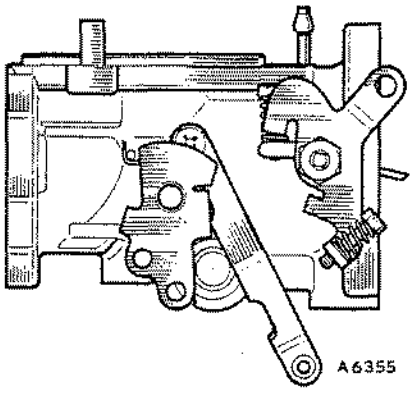
Used in addition to the main carburetter(s) where an automatic enrichment for cold starting is required. **Control** is by a switch either manually or thermostatically operated. **Fuel feed** is common with the main carburetter. **Adjustment** is by the **stop nut** which positions the tapered needle.

S.U. CARBURETTER SPECIFICATIONS

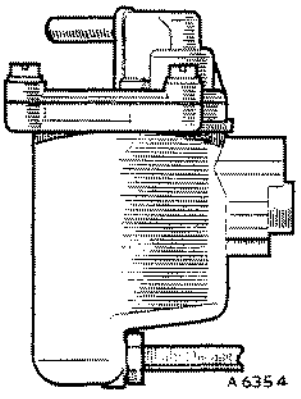
General

S.U. carburetters are fitted to an increasing variety of vehicle types, calling for a wide range of mounting arrangements, performances, and power characteristics in single and multi-installation. The carburetter in each case is a variation on a basic specification to suit a particular requirement.

A current list of carburetter types, specification numbers, types of needle for rich, standard, and weak setting, and piston spring colours, together with the vehicle on which they are fitted, is published periodically.



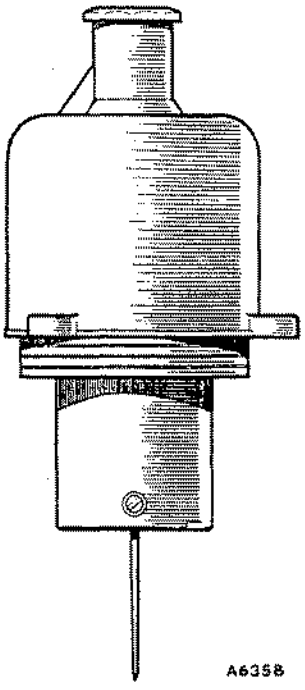
The body



The float-chamber

Basically, all S.U. carburetters comprise four main assemblies.

1. **The piston/suction chamber:** incorporating the jet needle, the piston damper, and spring.
2. **The body:** providing the choke or venturi in its internal bore which houses the throttle disc. Externally mounted are the controls and means of adjustment.
3. **The float-chamber:** housing the float and needle shut-off valve, receiving fuel from the pump and feeding it to the jet assembly as required.
4. **The jet assembly:** providing the single jet used, taking a variety of forms according to type.



The piston/suction chamber

Earlier-type carburetters

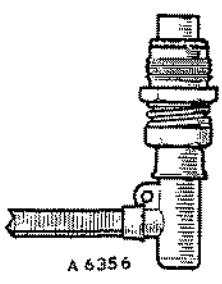
The original horizontal range of carburetters under the type 'HV' lasted until about 1938 when they were superseded by the H type (still a current model).

A range of full-downdraught carburetters bearing the type letter 'D' were also manufactured pre-1949 but were discontinued except for service replacements.

Later-type carburetters

Current types are H, HD, HS, and HS8. Each carburetter bears the specification number, having the prefix letter AUC or AUD, stamped on a metal plate secured under a float-chamber lid securing screw or centre-bolt. Any new part fitted during repair must be in accordance with the specification stated.

The size of an S.U. carburetter is designated by the figures following the type letter. This figure indicates the number of eighths of an inch that the diameter of the choke exceeds 1 inch. Thus an H1 instrument has a choke bore of $1\frac{1}{8}$ inch and an H8 has a bore of 2 inches.



The jet assembly