



Typical S.U. HD Type Carburettor (Manual Choke)

Illus. #	Description	Part #
1	Carburetor assembly	
2	Body assembly	
3	Pin-piston lifting	
4	Spring-pin	
5	Washer (viton)	AUC 4943
6	Washer (brass)	
7	Circlip-pin	
8	Shaft seal (cork)	AUC 2098
9	Washer - (dished)	
10	Spring	
11	Retainer-spring	
12	Valve-slow running	
13	Spring-valve	
14	Washer-dished (brass)	AUC 2030
15	Washer-gland (viton)	AUC 2029
16	Chamber & Piston Assy	
17	Screw-needle locking	
18	Cap & Damper	
19	Washer (black fibre)	AUC 4900
20	Spring-piston	
21	Washer-thrust-piston	
22	Screw-chamber to body	
23	Jet	Included
24	Bearing - jet	
25	Screw - jet locking	
26	Spring - jet return	AUC 2006
27	Needle - jet	
28	Housing Assembly - Jet	
29	Screw - stop	
30	Spring - screw	
31	Chamber - float	
32	Bolt - chamber to body	
33	Washer - shakeproof	
34	Float (nitrophyli)	
35	Lid - float chamber	
36	Washer - lid	AUC 1147
37	Float needle & seat	6151
38	Lever - hinged	
39	Pin - hinged lever	AUC 1152
40	Nut - cap - lid	
41	Washer (aluminum)	AUC 1157
42	Washer (fibre)	AUC 1928
43	Bolt - banjo	
44	Washer (fibre)	AUC 2141
45	Union - banjo	
46	Filter	
47	Shoe - cam	
48	Rod - shoe	
49	Screw - rod to shoe	
50	Washer - shakeproof	
51	Spring - rod	
52	Plate - top	
53	Washer - shakeproof	
54	Screw - plate retaining	
55	Screw - stop adjusting	
56	Spring - screw	
57	Spindle - throttle	
58	Disc - throttle	
59	Screw - disc	
60	Lever - throttle stop	
61	Pin - taper-lever	
62	Plate - return spring anchor	
63	Spring - spindle return	
64	Clip - end	
65	Bolt - clip	
66	Washer - plain	
67	Nut - bolt	

*Part #'s listed above ^ included in rebuild kit.

PISTON DROP TIMES

On 1 1/4" carburetors the drop time is 3-5 seconds. All larger carburetors have a drop time of 5-7 seconds. Thoroughly clean the piston, dashpot chamber, and plug depression transfer holes. Fit nut, bolt & large flat washer to one dashpot securing flange & measure time piston takes to move length of chamber.

Float Chamber Fuel Level

7/16"

- Remove the float chamber lid and invert it.
- With the needle on its seating insert a 11.0 mm (7/16 in) diameter round bar between the forked lever and the lip of the float chamber lid.
- The prongs of the lever should just rest on the bar. If not, carefully bend the lever until they do.

P.T.F.E. BUSHING

Illus. #	Description	Part #
A	Ring - outer	
B	Bush (teflon) -spindle	AUC 2424
C	Ring (brass) - inner	AUC 2500

*Part #'s listed above ^ included in rebuild kit.

"Parts for the Solution"

BRITISH SUPERIOR

Replacement Parts For SU & Zenith Carburetors

HELPFUL HINTS for HD MANUAL CHOKE CARBURETORS

When undertaking the repair and rebuilding of S.U. Carburetors, you have to remember that the units you wish to repair are at least 30 years old, and possibly as much as 50. It would be naïve to think that you are the first person to disassemble these units; many of these units have been gone through by knowledgeable people as well as by people who have no experience. You should have at hand the diagram enclosed with this kit as well as a factory shop manual. In the case of multiple carburetor installations, take one apart at a time so that you may have some reference when reassembling.

Cleaning the carburetor requires solvent usually found in local auto parts stores, and sometimes a mild abrasive. *Scotchbrite* brand nylon scrub pads work well. DO NOT USE SAND PAPER OR GLASS BEAD on any of the piston and dome assembly. These are critical fit components; it is best not to introduce any abrasive into the carb as you will regret it.

The HD carburetor with a few exceptions (Aston Martin) idles through the large idle air screw (AUC 2028) only, so for it to be effective the butterfly must be closed fully at idle. Do not use high idle screw (AUC 3463) to set idle.

When assembling any carburetor, be sure to oil the threads of any and all screws.

When installing jets, be sure to back off the old mixture setting screw (AUC 2521) so that the diaphragm is stretched. This lets the jet tube come up to the top of the jet bearing (AUC 2001).

Some HD8 carburetors use a plastic bushing in the throttle shaft which has a narrow (1/16") spacer between the bore and the bush as well as a wide one (1/4"). If you are removing the shaft, be sure to not lose these narrow rings on either side of the bush.

THROTTLE SHAFT WEAR: Remove all shaft springs, open butterfly about 30% and wiggle in the 2 o'clock to 7 o'clock direction; if movement seems excessive new throttle shafts are needed as worn shafts affect mixture and idle. The factory said 2.5 thousandths inches was minimum clearance.

Inspect floats for signs of leakage. Brass floats get vertical stress cracks which are visible. Plastic ones wear out their pivot points.

FLOAT FORKS: There were changes in float fork configuration. There are two types of forks: (1) ones that have folded pivot tangs with a hole drilled for the pivot pin (AUC 1980/AUC 1981) made of steel and plated; (2) there also is a stainless steel fork where the pivot end looks like the tines of a fork (AUD 2285/AUD 2299). They ARE NOT interchangeable. AUC 1980 fit bowl covers with a short pedestal (AUC 1160, 1161, 4260, 4261 etc.). Height of pivot hole on pedestal from gasket face to center of hole is approx .220". The AUD 2285 fits "tall" pedestal. Those covers' (AUD 2283, 2284 and others) pedestal height is approx .325". While forks and covers are not interchangeable individually, whole cover & fork assemblies are interchangeable as a unit. They all take the same needle and seat. The low pedestal covers are most common pre-war up to the mid 1960's, the tall ones are later, and are currently supplied as replacements. There are other part numbers of covers out there too numerous to list.

FILLING THE DAMPER: For the proper operation of the carburetor, you must fill the hollow steel tube attached to the piston with oil. This acts as a shock absorber (pre-war carbs do not have a hollow tube) and smoothes the piston rise. You can use official SU damper oil, or in warm seasons use motor oil (10/40 or 20/50), and in the cold season use automatic transmission oil. You can also experiment. Fill tube halfway. If you overfill slightly, do not worry the overflow will go into the engine and burn away.

FUEL LEAKAGE: You are the first line of defense! If you see a leak or smell gas, stop and investigate.

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