

**HERALD 1200
PUMP TYPE CARBURETTOR
FAULT FINDING
AND
MAINTENANCE INSTRUCTION**

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CARBURATION FAULT FINDING CHART

FAULT	CAUSE	REMEDY
Excessive fuel consumption	High pump pressure.	Reduce fuel delivery by fitting extra washers behind pump. Check diaphragm spring tension.
	Insufficient washer thickness beneath needle valve. Leaking jet gland packing (Twin carburettors). Faulty needle valve seating. Punctured float.	Fit thicker fibre washers. Renew gland packings. Clean or replace needle valve. Check and replace if faulty.
Poor slow running and starting	Faulty ignition. Incorrect adjustment. Blocked manifold drain pipe. Induction air leak.	Check and rectify if faulty. Re-adjust. Check and clean. Check manifold and carburettor joints. Replace if required.
	Loss of compression. Choked jets. Sticking dashpots (Twin carburettors).	Check and re-grind valve seats if required. Remove and clean jets. Remove, clean and lubricate.
Lack of acceleration and maximum speed	Faulty ignition. Induction air leak.	Check and rectify. Check and replace manifold and carburettor joints if faulty.
	Loss of compression. Throttle not opening fully. Fuel starvation.	Check and re-grind valve seats if required. Check and adjust limit stop or cable. Check delivery from pump, needle valve for sticking and blocked jets.
	Air cleaner choked. Silencer choked. Sticking dashpots (Twin carburettors).	Remove and clean. Check and replace if faulty. Remove, clean and lubricate.

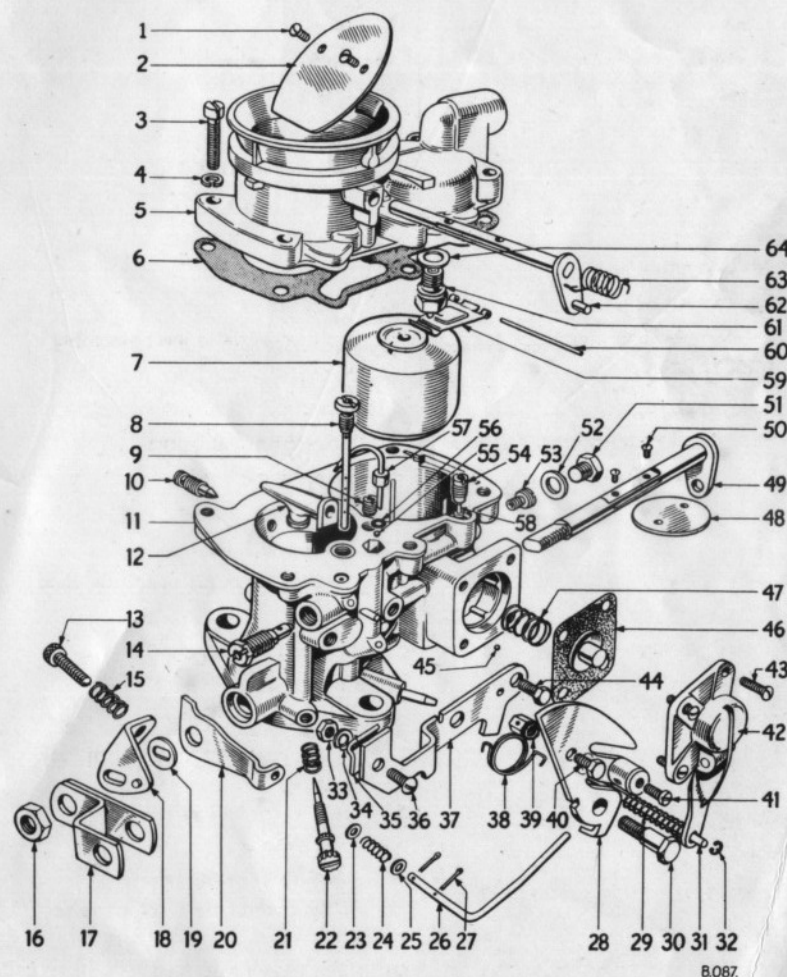


Fig. 43. Dismantled B.30 P.S.E.I. Carburettor.

- Removal**
1. Detach the air cleaner assembly. Disconnect the fuel pipe and detach the vacuum ignition control pipe by withdrawing the rubber sleeve from the carburettor.
 2. Release the choke inner and outer cables (4) Fig. 42 from the abutment bracket and cam plate screw (9).
 3. Disconnect the throttle cable (5) from the throttle lever. Remove two nuts and spring washers and detach the carburettor from the manifold.

Re-fitting Re-fit the carburettor by reversing the foregoing dismantling procedure. Fit a new gasket and adjust the length of the inner choke cable so that when the choke knob is fully in, the choke butterfly cam plate is against its stop on the abutment bracket.

Dismantling and Cleaning (Fig. 43)

Detach the air cleaner and disconnect the fuel pipe. Remove the screws (3), spring washers (4) and detach the top cover (5) and gasket (6). Lift out the spindle (60), float lever (59) and float (7).

Remove the plug (51), washer (52) and, using a long screwdriver, remove the main jet (53).

Unscrew the pilot jet (14) and the air correction jet (8) from the carburettor body (11). Remove the valve (54) and plunger (58) then detach the accelerator pump nozzle (57), taking care to catch the ball valve (55) from beneath it.

Detach the screws (43) from the accelerator pump body (42), remove the body and swing it to one side on the pump lever.

Remove the diaphragm (46) and spring (47). Take care not to lose the ball valve (45) from its seating within the accelerator pump chamber.

Using clean fuel and a compressed air line, clean out the float chamber, and passages within the carburettor body and the various jets.

Re-assembly (Fig. 43)

Re-fit the ball (45), spring (47), diaphragm (46) with its boss outwards and the pump body (42), securing these with the screws (43).

Re-fit the main jet (53), washer (52) and plug (51), the pilot jet (14), compensating jet (8), non-return ball valve (55) and accelerator pump nozzle (57).

Fit the float (7), lever (59) and spindle (60). Position a new gasket (6) on the carburettor body, hold the strangler butterfly open and fit the top cover (5) to the body, securing with the screws (3) and spring washers (4).

To completely dismantle the carburettor, carry out the foregoing dismantling operations plus the following —

Complete Dismantling (Fig. 43)

Remove the needle valve (61) and fibre washer (64). Detach the screws (1), withdraw the strangler butterfly from its slot in the spindle and then detach the spindle (62) and return spring (63) from the top cover (5).

Top Cover

Remove the nut (16), throttle lever (17), idling stop bracket (18), washer (19) and strangler inter-connection lever (20) from the throttle spindle. Remove the screws (50), slide the throttle butterfly (48) from its slot in the throttle spindle (49) and withdraw the spindle (49) by sliding it towards the front of the carburettor. Remove the circlip (32), detach the push rod (31) from the pump lever and remove the spring (29). Unscrew the rod (31) from the lever (49). Slacken the screw (41) and detach the connecting rod (26) and lever (20). Withdraw the split pins (27) and remove the washer (23) followed by the lever (20), spring (24) and second washer (25).

Main Body

Remove the idling mixture adjusting screw (22) and spring (21). Withdraw the econostat jet (9) from the carburettor body.

Remove the setscrews (44), pivot bolt (30) and detach the cam plate (28), spring (38) and abutment bracket (37). Release the screw (10) and withdraw the spraying assembly (12) from the carburettor.

Re-assemble the carburettor by reversing the dismantling procedure, but note the following :—

Re-assembly (Fig. 43)

The return spring (38), on the cam plate pivot bolt (30), must be fitted with the narrow hook in the slot of the cam plate (28).

The return spring (63) must be fitted with the hooked end over the strangler lever (62).

Fit the circlip (32) onto the first groove in the accelerator pump connecting rod (31).

Adjust the length of the throttle/strangler inter-connecting rod (26) by inserting a length of 0.027" (0.7 mm.) dia. rod between the throttle butterfly and the bore of the carburettor body; then, with the strangler butterfly fully closed, tighten the screw (41).

KEY FOR FIG. 43

- | | |
|--|---------------------------------------|
| 1 Screw | 33 Nut |
| 2 Strangler | 34 Spring washer |
| 3 Screw | 35 Cable clip |
| 4 Spring washer | 36 Spring |
| 5 Top cover | 37 Abutment bracket |
| 6 Gasket | 38 Spring |
| 7 Float | 39 Solderless nipple |
| 8 Air correction jet | 40 Pinch screw |
| 9 Econostat fuel jet. | 41 Pinch screw |
| 10 Spraying bridge retaining screw | 42 Pump cover and lever assembly |
| 11 Body | 43 Screw |
| 12 Spraying bridge | 44 Setscrew |
| 13 Slow running adjustment screw | 45 Non-return ball valve |
| 14 Slow running fuel jet | 46 Pump diaphragm |
| 15 Spring | 47 Diaphragm spring |
| 16 Nut | 48 Throttle disc |
| 17 Throttle lever | 49 Accelerator pump operating lever |
| 18 Stop lever | 50 Screw |
| 19 Slotted washer | 51 Main jet access plug |
| 20 Strangler-inter-connection lever | 52 Fibre washer |
| 21 Spring | 53 Main jet |
| 22 Idling mixture volume screw | 54 Pump chamber non-return valve body |
| 23 Washer | 55 Non-return ball valve |
| 24 Spring | 56 Fibre washer |
| 25 Washer | 57 Accelerator pump jet |
| 26 Strangler-inter-connection push rod | 58 Pump chamber non-return valve |
| 27 Split pin | 59 Float lever |
| 28 Strangler operating cam | 60 Float lever pivot |
| 29 Spring | 61 Needle valve |
| 30 Pivot bolt | 62 Strangler cam follower and spindle |
| 31 Accelerator pump push rod | 63 Return spring |
| 32 Circlip | 64 Fibre washer |

SOLEX CARBURETTOR TYPE B.30 P.S.E.I.

- | | |
|------------------|--------------------------------|
| 1 Nipple | 6 Idling mixture adjustment |
| 2 Setscrew | 7 Pinch screw |
| 3 Bracket | 8 Accelerator pump push rod |
| 4 Choke cable | 9 Pinch screw |
| 5 Throttle cable | 10 Choke cable support bracket |

Settings			
Choke	..	..	22
Main Jet	..	..	112.5
Air Correction Jet	..	..	175
Pilot Jet	..	..	45
Pilot Air Bleed	..	..	85
Econostat Petrol Jet	..	..	100
Econostat Air Bleed	..	..	1.2
Emulsion Tube (Blank End)	..	..	41.5
Pump on short stroke position, i.e. outer slot.			

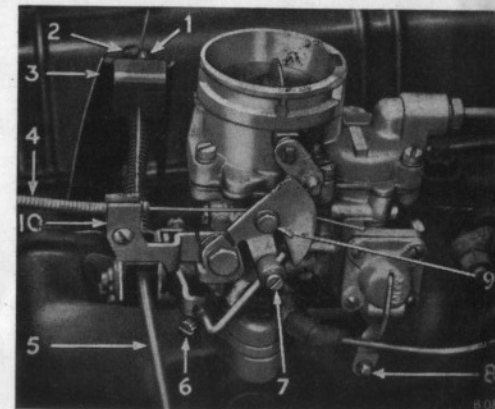


Fig. 42. Carburettor.

Pull the choke control fully out, switch on the ignition and operate the starter. **DO NOT DEPRESS THE THROTTLE PEDAL.**

Starting from Cold

Do not use the dashboard control. If an immediate start is not obtained, partly depress the throttle pedal until the engine fires. **Do NOT PUMP THE THROTTLE PEDAL.**

Hot Re-starting

Slow running adjustments must be made with the engine hot, and should be carried out as follows:—

Setting the Idling (Fig. 43)

1. Set the throttle slow running adjustment screw so that the idling speed is about 500 r.p.m.
2. Unscrew the volume control screw (22) until the engine begins to hunt.
3. Screw it in again gradually until the hunting just disappears.
4. If the engine speed is then too high, reset the slow running screw to give an idling speed of approximately 500 r.p.m.
5. This may cause a slight resumption of hunting. If so, gently screw in the volume control screw (22) until idling is perfect.