

**WEBER**  
CARBURETTORS

## CARBURETTOR Type 34 ICH

Fig. 1

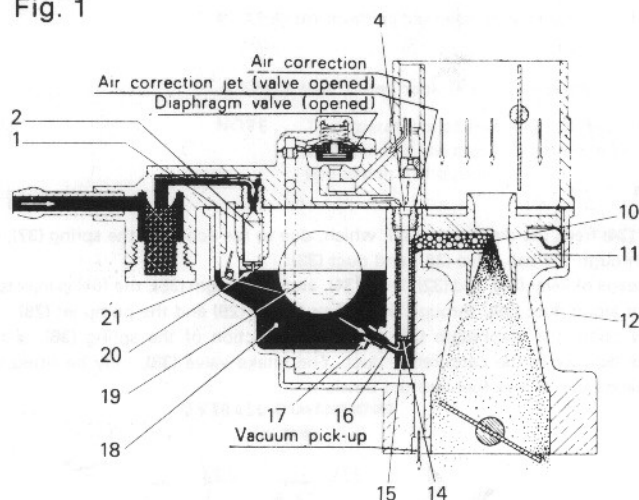
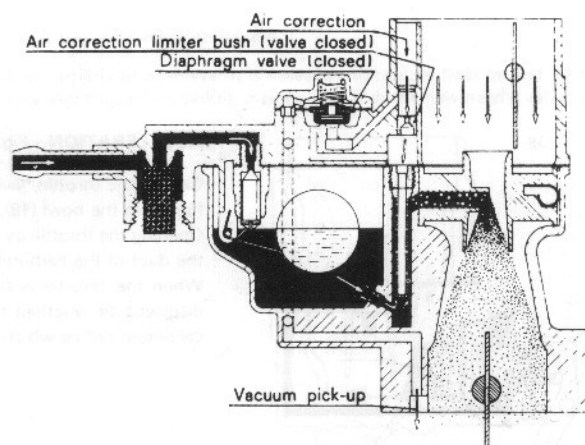


Fig. 2



### NORMAL RUNNING - Fig 1.

The fuel, through the needle valve (1) passes to the bowl (18) where the float (19), articulated in the trunnion (21), regulates the needle opening (2) in order to keep the level of the liquid constant: the needle (2) is connected to float tab (19) by means of the return hook (20).

From the bowl (18), through the main jet (17), the fuel reaches the well (15) along duct (16). Mixed with air from the orifices of the emulsifying tube (14), and the air corrector jet (4), through the nozzle (10), it reaches the carburation area, consisting of the auxiliary venturi (11), and the choke (12).

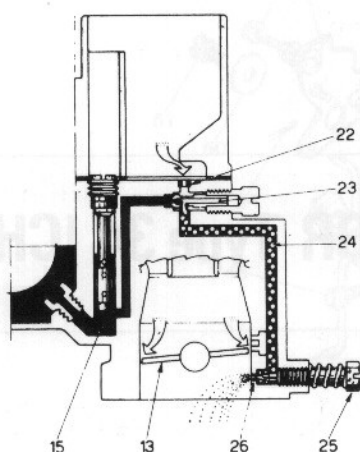
### Technical description and operation of power valve enrichment

Technically the 34 ICH is a single barrel down-draught carburettor equipped with manual choke. It is moreover provided with a power valve device which permits results in terms of consumption and pollution to be obtained without influencing vehicle wide open throttle performance.

The device consists of a valve which operates on the main air correction circuit and is controlled by a spring loaded diaphragm sensitive to manifold vacuum. During part-throttle operation the manifold vacuum exceeds the diaphragm spring load and holds the valve open introducing an air by-pass to the air correction limiter bush.

**Under this condition the mixture strength is leanest possible, resulting in lower fuel consumption and reduced levels of unburnt fuel.**

At wide open throttle the mixture strength must be richer (to obtain maximum power) during the wide open throttle condition the diaphragm spring overcomes the low manifold vacuum and closes the by-pass air circuit. The main fuel circuit air supply is now only available via the correction limiter bush whose diameter is less than the main air corrector. This results in a richer mixture whose strength is correct for wide open throttle operation.



**IDLE SPEED AND PROGRESSION - Fig. 3**

From the well (15), the fuel passes to the idle jet (23). Emulsified with the air from calibrated orifice (22) through duct (24) and the idle feed orifice (26), the last being adjustable by means of screw (25), it reaches the carburettor duct downstream of the throttle (13).

The mixture also reaches the carburettor duct from the progression holes (27), placed on a level with the throttle, so allowing a regular increase in angular speed of the engine starting from idling speed.

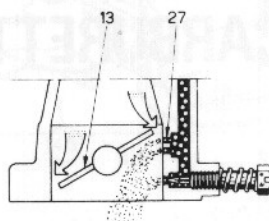
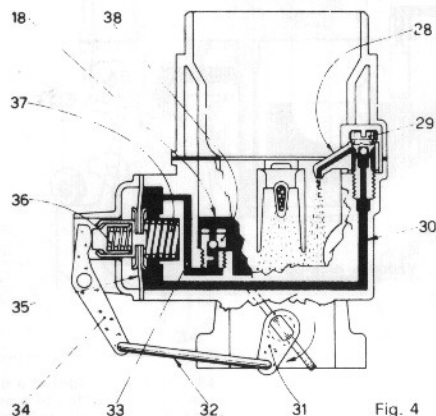


Fig. 3



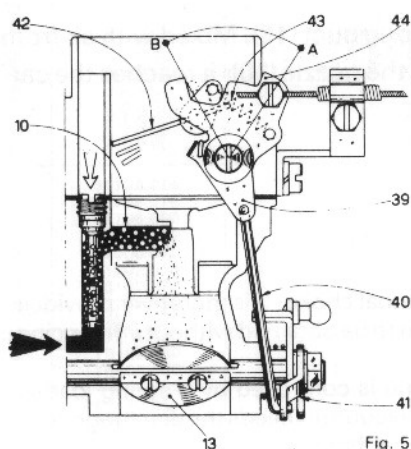
**ACCELERATION - Fig. 4**

Closing the throttle, lever (34) frees the diaphragm (35), which, due to the action of the spring (37), draws fuel from the bowl (18), through the ball valve (38), and duct (33).

Opening the throttle by means of lever (31), rod (32), lever (34), and diaphragm (35), the fuel is injected into the duct of the carburettor along duct (30), through the delivery valve (29) and the pump jet (28).

When the throttle is fully open, the diaphragm (35), through the action of the spring (36), is further displaced to lengthen fuel delivery in the carburettor duct. The intake valve (38), may be fitted with a calibrated orifice which discharges excess fuel into the bowl.

Fig. 4



**STARTING - Fig 5**

With lever (39) in position «A», the throttle (42), blocks the air intake while, by means of rod (40) and lever (41), the throttle (13), partially opens.

The nozzle (10) therefore delivers a rich mixture, so permitting ready starting of the engine.

Once the engine is started, the depression partially opens the throttle (42), against the action of the spring (43).

The mixture, still rich, allows regular engine speed. During the engine warming-up phase the throttle (42), must be progressively opened.

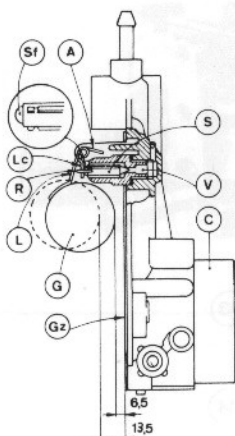
When running temperature is reached, switch off the device completely - position «B»: the throttle (42), is kept completely opened by tab (44) while throttle (13) is brought to the idling position.

**STARTING OF ENGINE** - Switch on starter by pulling knob fully out - position «A».

**PUTTING VEHICLE TO WORK** - During engine warming-up period, even with the vehicle moving, progressively switch off the device.

**NORMAL VEHICLE RUNNING - DEVICE TURNED OFF** - Position «B» as soon as the engine reaches running temperature.

Fig. 5



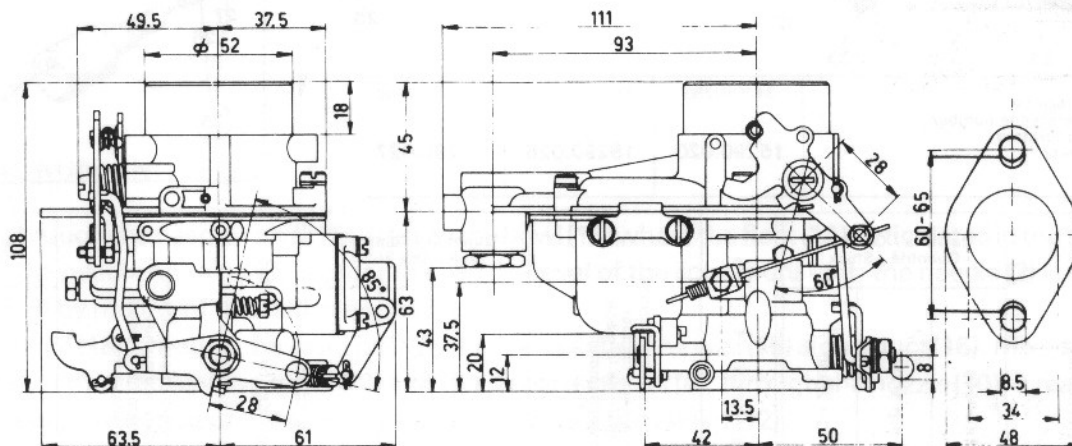
# (\*\*) DIRECTIONS FOR LEVELLING THE FLOAT:

It is essential that the following directions be complied with in order to obtain correct levelling of the float:

- Make sure that the float (G) does not show any pit. Check that float can freely slide on its axis.
- Make sure that needle valve (V) is tightly screwed in its housing and that pin ball (Sf) of the dampening device, incorporated in the needle (S), is not jammed.
- Keep the carburettor cover (C) in vertical position, since the weight of the float (G) could lower the pin ball (Sf) fitted on the needle (S).
- Make sure that float clip (LC) is perpendicular to the needle (S) and does not have any indentation on the contact surface which might affect the free movement of the needle itself.
- With carburettor cover (C) in vertical position and float clip (LC) in light contact with the pin ball (Sf) on the needle (S), the distance of float (G) from upper surface of carburettor cover (with gasket (GZ) fitted) must measure **mm. 6,5**.
- After the levelling has been done check that the stroke of the float is **mm. 7** . . . . . If necessary adjust the position of the lug (A).
- Check that return hook (R), of the needle (S) allows it free movement on its seat.

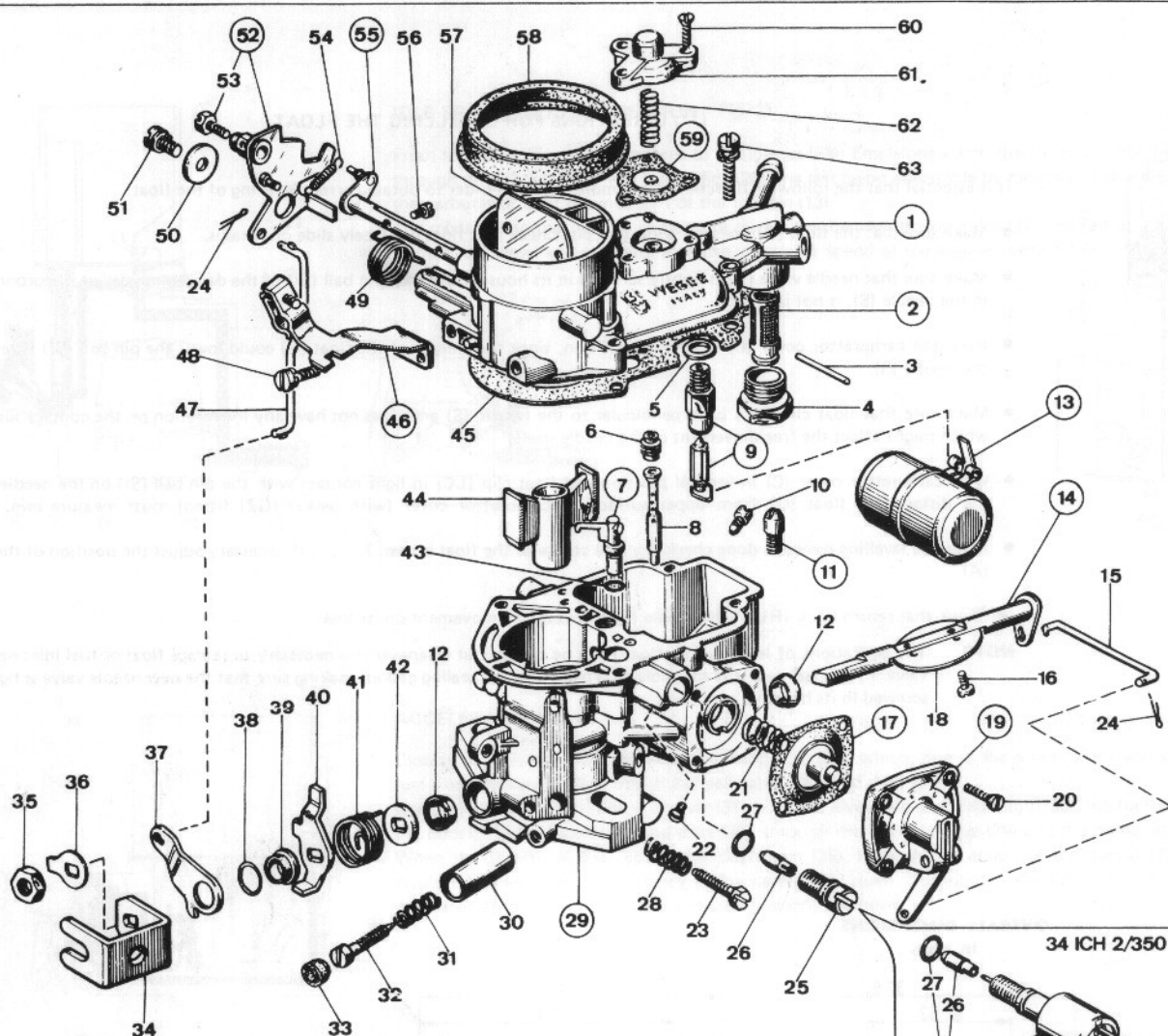
**NOTE** The operations of levelling the float must be carried out whenever it is necessary to replace float or fuel inlet needle valve: in this last case it is advisable to replace also the sealing gasket, making sure that the new needle valve is tightly screwed in its housing.

## OVERALL DIMENSIONS In mm.



**WEBER CONCESSIONAIRES LTD.**

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Tipo e numero di ordinazione  
 Type and carburetor reference number  
 Type et numero du carburateur  
 Typ und vergaser nummer

34 ICH/250

**15290.020**

34 ICH 1/250

**15290.026**

34 ICH 2/350

15290.027

34 ICH 2/350

Fig. / Key Nr. / Fig. / Abb.	Numero di ordinazione Reference number Número de la piece Bestellnummer	Quantità / Quantity Quantité / Stück			Fig. / Key Nr. / Fig. / Abb.	Numero di ordinazione Reference number Número de la piece Bestellnummer	Quantità / Quantity Quantité / Stück			Fig. / Key Nr. / Fig. / Abb.	Numero di ordinazione Reference number Número de la piece Bestellnummer	Quantità / Quantity Quantité / Stück		
		34 ICH/250	34 ICH 1/250	34 ICH 2/350			34 ICH/250	34 ICH 1/250	34 ICH 2/350			34 ICH/250	34 ICH 1/250	34 ICH 2/350
1	31706.074	1	-	-	17	47407.016	1	1	1	41	47610.058	1	1	1
	31706.078	-	-	-	18	64005.007	1	1	1	42	55555.016	1	1	1
	31706.080	-	-	-	19	32486.073	1	1	1	43	41565.001	1	1	1
2	37022.002	1	1	1	20	64565.001	4	4	4	44	70519.450	1	-	-
3	52000.010	1	1	1	21	47600.107	1	1	1		70311.350	-	1	-
4	61002.018	1	1	1	22	64570.008	1	1	-		70311.350	-	-	1
5	83102.070	1	1	1		64600.001	-	-	1	45	41700.026	1	1	1
6	77201.150	1	-	-	23	64625.012	1	1	1	46	58702.023	1	1	1
	77201.175	-	1	-	24	32610.005	2	2	2	47	61280.021	1	1	1
	77201.190	-	-	-	25	52570.009	1	1	-	48	64700.012	1	1	1
7	76407.050	1	-	-		43904.050	-	-	1	49	47610.003	1	1	1
	76407.050	-	1	-	26	74409.050	1	-	-	50	55510.002	1	1	1
	76407.055	-	-	1		74409.050	-	1	-	51	64700.012	1	1	1
8	61440.211	1	1	1		74409.050	-	-	1	52	45202.125	1	1	1
9	79507.175	1	-	-	27	41565.019	1	1	1	53	64615.004	1	1	1
	79507.175	-	1	-	28	47600.007	1	1	1	54	47605.040	1	-	-
	79507.175	-	-	1	29	-	-	-	-		47605.026	-	1	1
10	73801.125	1	-	-	30	12785.055	1	1	1	55	10015.266	1	1	1
	73801.155	-	1	-	31	47600.007	1	1	1	56	64525.003	2	2	2
	73801.165	-	-	1	32	64750.048	1	1	1	57	64010.026	1	1	1
11	79701.040	1	-	-	33	61075.022	1	1	1	58	10304.022	1	1	1
	79701.040	-	1	-	34	45136.029	1	1	1	59	47407.233	1	1	1
	79701.040	-	-	1	35	34715.014	1	1	1	60	64560.004	3	3	3
12	41575.010	2	2	2	36	55520.002	1	1	1	61	32384.046	1	1	1
13	41015.011	1	1	1	37	45032.075	1	1	1	62	47600.131	1	-	-
14	10015.540	1	1	1	38	55530.002	1	1	1		47600.235	-	1	1
15	61280.020	1	1	1	39	12775.007	1	1	1		64700.005	4	4	4
16	64520.023	2	2	2	40	45039.061	1	1	1	63 Gasket Kit	92019.505	1	1	1
										Tune Up Kit	92127.605	1	1	1