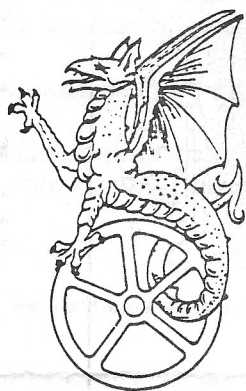


WESSEX STATIONARY ENGINE CLUB



NEWSLETTER

MAY 1987

This Newsletter shall not be reproduced in part or whole without prior consent and due reference to the Wessex Stationary engine Club. Opinions expressed are not necessarily reflective of Club policies. All rights reserved.

THE MONTHLY MEETING - April 1987

The Recovery and Installation of a Brush 300 hp Engine and Generator

The very warm Monday evening was well attended by Club members and it was certainly a great pleasure to see the Editor of the 'Stationary Engine' Magazine, David Edgington, and his wife, Doreen, once again. David is a past-President of the WSEC and I'm sure lots of old memories and engine stories were exchanged due to David's association with our Club over the past ten years.

Club members may recall a Newsletter report at the latter end of 1986 about John Kyte's Garden Rally. The report mentioned the massive 300 hp Brush engine that John had installed in his garden; our evening's entertainment consisted of the saga of the recovery and subsequent installation of this huge diesel engine and who better to tell us of it than the man himself, John Kyte. Armed with a pile of photographs projected on the Club's epidiascope, John told us of how he first heard of the engine at Spencers of Melksham and that it was no longer required. All that stood in the way of it going to a new home was the price, £100. His wife, Doris, put up half the money! obviously a very understanding lady. The engine was made in 1938 but the snag was that it weighs some 20 tons. However, it was dismantled and eventually transported back to Market Lavington involving a lot of hard work and beset by many problems.

To give some idea of these problems, consider a 6ft.dia.flywheel weighing 6 tons, a 12 sheave pulley weighing 3 tons, and the crankcase complete with crankshaft at 8 tons, the crank itself is over one ton; now perhaps you begin to perceive the scale of the problem! Many of the parts proved too much for the Hi-Ab on the lorry especially as the crankcase is roughly the physical size of a rubbish skip.

Once the location for the engine was decided upon in John's garden, some 30 tons of concrete was poured and cast as a base with a smaller base for the flywheel outrigger bearing. The flywheel proved that most difficult part to deal with so it was stored about half a mile from John's home until required. A lot of thought was given to the best method to transport it the final distance, preferably in an upright position; however, the best solution came to him in the middle of the night. Whereas we all have nightmares or bad dreams, he awoke with the complete answer. A large tractor was borrowed and parked against the flywheel. The rear of the tractor was jacked up to the flywheel centre and the flywheel chained to the wheel and tyre. Slowly one Sunday morning early, tractor and flywheel rumbled its way along Market Lavington High Street at a very odd angle! The tractor managed to roll the flywheel right up to the engine but couldn't get alongside due to the steepness of the ground and the outrigger bearing. When released from its chain, it sank 12" into the earth so a discussion as to the next move as carried out in the pub next door. On returning to the site, it was found that the wheel had sunk another 12" in! (Moral - never put off till later that which can be attempted straight away). At this point John emphasised that one has to have very tolerant neighbours when dealing with engines; especially when they are this size. When the engine runs fast it rattles the glasses in the pub, whilst a lady who lived over the road recently moved house! The project has taken him 4000 hours plus 2000 hours donated by a friend. It is cooled by a 1000 gallon water tank which provided him with hot water for baths for a week after it boiled at the Garden Rally weekend. When the engine starts, a pall of black smoke is omitted which has been sighted from four miles away but it soon clears and the engine then runs very cleanly. The large 3-phase alternator would power half the village with its 200 kVa produced.

It will be running quite a few times this year including the annual Garden Rally and an invitation has been extended to Club members and friends to view the machine and the many other engines he has in his garden. They would all be made most welcome. Thank you John for a most interesting

2.

and entertaining evening.

While the Epidiastroscope was set up Eric Brain showed a few photographs of a modern stationary engine, a Dorman diesel/gas engine conversion undergoing lean-burn trials in the test lab. at Bath University. This engine is 3 litre capacity with 'state of the art' modern technology, pressure boosted and with electronic ignition.

Herb the Raffle then performed his monthly draw and the prize winners were: Bob Hallam, some picture frames, Trevor Payne, some mugs, and Robin Lambert bottle of wine.

Finally, it must be mentioned that when Bob was asked to send his wife up to collect his raffle prize, he replied that she always chose the rubbish. Whereupon some anonymous wit reminded him that she had chosen Bob as her husband.

Robin & Jackie Lambert

THIS N' THAT

Best wishes for a speedy recovery to Charles Hudson whom, we hear, is recovering in hospital following an operation. For the benefit of new members, Charles co-edited 'Stationary Engines for the Enthusiast' with David Edgington and has been a Wessex Member for many years. Get well soon Charles.

OBITUARY: Wessex members who attended rallies in Wiltshire and more to the east of our area will be sad to learn of the death of Selby Huzzey. Aged 63, Selby lived at Woodlands St.Mary and was a true countryman, a son of the soil. He loved old machinery and helped found the Lambourn Vintage Machinery Society. Many of us have seen and enjoyed his Robey steam mill engine mounted on the low-loader trailer ot met him at ploughing matches where he usually presented the awards. His death will leave a large gap in the preservation world; he will be missed.

Quotation

(From Newsletter of 'The Buntingford & District Mechanical Preservation Society, dated April 1987)
'....display of Stationary Engines and stresses that space is strictly limited so he is not seeking a sort of (gigantic) rally. From what I have seen, it takes an average of two cars, a trailer, a caravan, an awning and a toilet tent just to support one Lister D so I wish him luck.....'

Newcomen Society

A recent journal of the Newcomen Society carried an interesting report on Wessex Club member Michael Canon's lecture to 90 members in December on 'Tangye Ltd'. In it it states that his slides of preserved engines at rallies shows how much the stationary engine movement is doing to preserve the reputation of Tangye's engine production. Also present at the lecture was Joseph Tangye's grandson, Mr. J.E. Parker, who joined in the lively discussion provoked by the context of the meeting. Well done Michael for keeping the engine preservation movement's flag flying.

Newsletter

We apologise for last month's later delivery due to printer's holidays. May is a particularly bad month, especially this year with so many Bank Holidays close together. However, we make no apology for the lack of interesting material in this month's edition; this is due entirely to apathy on the part of the general membership. Please remember that what you get out of the Club is almost entirely proportional to what you put into it. All contributions are gratefully received whether they are rally reports, newly completed restorations, anecdotes on engines, engine discoveries, in fact any material preferably with an engine theme. Please send to Eric Brain, 5 Greenridge, Clutton, Nr.Bristol; we really are desperate.

Discovered

While out for a lunchtime walk, I often pass two stationary engines on a derelict farm and wonder why they have not been discovered by one of our engine fraternity and rescued. One if a very rusty Lister B type, hopper cooled on a trolley and coupled to a stone crusher. It is suitable for internal spares only. The other is the inevitable Lister D which is mounted inside an elevator and thus has been protected from the elements. It looks complete and quite restorable. I have no idea as to the owner or even if they are for disposal but they have been there for at least five years to my knowledge. There are also three pairs of spade-lug tractor wheels of unknown make. They are at the top of Widcombe Hill, Claverton down, Bath along a lane behind the chalets and mobile homes site. Good Hunting!

Explosion!

Having made a replica silencer for his newly restored Victoria 3 hp, Ivor Yeo decided to have a trial run of the engine prior to attending it first rally st Bristol Docks. The engine was wheeled from the garage and Ivor swung on the handle. Although the finished engine had run before, it would not start, so partly by way of a rest from swinging, Ivor produced and fitted a new spark plug. A further swing on the handle produced a 'bang' that echoed its way around Chew Valley sending the rooks and pigeons into the cover of the Forestry Plantation. As the echos died away, a tinkling metallic sound thirty yards away from behind the garage, across the lawn and over the hedge required investigation. Eventually, Ivor found the cause; he recognised the blackened, twisted disc of metal with its pattern of holes as his carefully constructed 'pepper-pot' silencer top. Could its next resting place be the bottom of the Docks?

AN ENTHUSIAST'S OBSERVATIONS

Yet another rally season is upon us and with it comes the same old moans, 'I cannot get my engine into that space', 'I always put my tent behind my engine', 'That engine should never have won first prize', 'Last year's plaque was much nicer than this'.....I could go on and on! We have all heard these things and many more and some of us have even been guilty of saying them ourselves at some time or another.

Occasionally, however, there are the little rays of sunshine, the little incidents which amuse us, the delights that make us want to attend a certain rally again and again.

I often wonder if we lose sight of the real reason we pursue this hobby of ours; after all the object is not to see how many plaques we can collect in a year and not to see how smooth we can get the paintwork on an engine which certainly never had a mirror finish originally. Neither is it to have an engine chugging away behind a rope in a field with no explanation on how it works or where it came from or what its use was while its owner sits lazily in a deck chair oblivious of the bewildered and often bemused public. The public have paid hard earned cash to see our engines and I feel we have a duty to put on as good and interesting display as possible.

Equally, they do not want to see personal paraphernalia and rubbish which often accompanies the camping right behind the engines on display, nor are they interested in rows of boards of boring plaques. What they **DO** want to see is an engine, possibly in original condition, but preferably restored, which can be working something if at all practicable with, and this is essential, a note on what the exhibit is, its date of manufacture if known, with a little of its own and its manufacturer's history.

The 'Stationary Engine' Magazine recognises this fact (can there possibly be **ANYONE** in our Club who does not subscribe to it?) and now offers free - yes free - 'Exhibition Log Sheets' just for this purpose which are nicely set out in handy A4 size coloured green and black. Just send a request and SAF. to the publishers.

My workload does not permit me to attend as many rallies as I would wish these days, but whenever I do, I often see acts of crass stupidity as far as safety is concerned; whether it is loading or unloading, just running or starting an engine. We have all done something silly at some time, some years ago a friend of mine broke his arm in two places and I have also been present when someone was actually killed at a rally- it was a sickening sight and could easily have been avoided. He was fooling around at the time and you don't fool around with machinery! The Wessex Stationary Engine Club has an excellent safety record so let's keep it that way - after all we are all our own safety officer.

In conclusion, let's all have an enjoyable 1987 rally season and endeavour not to forget what the stationary engine movement is all about - it is all summed up in the first paragraph of the Club's Constitution. When did **YOU** last read it?

Michael Cannon

It was a sheer coincidence but, bearing in mind paragraph 2 of 'This n' That', I had already written and typed a similar piece to this but with special emphasis on the proper display of engines which it seems so few bother to do nowadays. If we visit a Museum - which after all, an engine rally is really only an out-door living museum - we expect to see the exhibits correctly labelled with a description. If this were not so there would soon be a lack of visitors!

By the way, if you are unsure of the date of your engine, don't be made look a fool; there are too many 1929 Wolseley WD's, 1900/1902 Detroit P types and 1924 Lister Diesels around already!

Well written Michael - I heartily endorse every word.....Ed.

WANTED

Kohler engine for Howard 'Gem' rotovator. Roger Millard, 24 Maynard Terrace, Clutton, Nr.Bristol. Tel. Temple Cloud (0761)52930.

Coil for Wico EK Magneto or even a scrap mag. providing one of the coils is OK. Robin Lambert, 15 Beechwood Ave., Frome Som. Tel Frome 63526.

Petter Junior Oil Engine or 'M' type hopper cooled with either Rugby ball or Apple top. Any condition as long as it is complete; also matching volt and amp meters 0-50+ amps, 0-50 volts. Brass preferred, but anything considered. Eric Gay, 21 Rutland Cres., Trowbridge, Wilts. Tel. 02214-4374.

Carburettor required for petrol/kero Amanco Hired Man. Mr. White, Abertillery 0495-213523. This gentleman can also supply parts for Wolseley WD II, gaskets, valves, etc.

Zenith 24T2 Carb. to suit Villiers Mk.25 engine. Carbon thrust ring for Howard 300 rotovator. Gerald Atherton, Rose Glen, Churchill, Nr.Bristol. Tel. Churchill 852670 (apologies for misprint of tel.no. last month!).

FOR SALE

Norton Jubilee motorcycle, 1961, clean and tidy machine, 90% restored, runner - £200; **Lister HP 1 water pump**, very good condition, no leaks, £55; **Scott** air-cooled engine, £30; **small BSA engine**,

4. novelty size, £25; Wico magneto, £10; BMB battery charging generator, £75. M.J. Munslow, 1 Moortown Cottages, Curry Rivel, Langport, Som. TA10 0AB.

Lister D-type, unrestored, working, £25. M.J. Cannon, Conifer Cottage, School Lane, Northend, Batheaston, Bath, Somerset.

Lister D-type, £35; Saw bench with 2 blades and belt, £45 ono; Petter A-type, class one, £55 ono; T. Board, Box Bush Farm, West Wick, Weston-super-Mare, Som. Tel. WSM 510404.

Bentall Oil-Cake Crusher, complete and restored, £15; Sack hoist by John Cooke, £10. Robin Lambert, Frome 63526 (as above).

Wolseley WD II water hopper, £5; Roller Mill, £35; various Petter M-type parts and Lister D parts. Eric Brain, tel. (0761) 52633.

Engine Wash. Roger Millard has a large quantity of engine cleaning solvent for free disposal in small lots to Club members. Contact Roger on Temple Cloud 52930.

Twin Cylinder magneto from Morgan three-wheeler, full working order, £25 ono. Eric Gay, 21 Rutland Crescent, Trowbridge, Wilts. Tel. 02214-4374.

FORTHCOMING EVENTS

July 11 Clarendon School Fete. Stationary engines required and vintage exhibits. Details from E.J. Gay, 21 Rutland Cres., Trowbridge, Wilts. Tel. Trowbridge 02214-4374.

Aug. 30/31 White Horse Show, Uffington, Faringdon, Oxon. If you want to spend the Bank Holiday weekend somewhere different this year, this country event is well worth travelling to. It is not as far as it sounds; just the other side of Swindon in fact. There are many events going on all the time for all the rest of the family. National heats of the Lawn Mower Racing championships take place all weekend - thrills and spills with speeds reaching 55 mph! Send sae for entry to Charles Philo, 1 Craven Common, Uffington, Oxon SN7 7RN.

Sept. 5/6 Newbury Police Railway Club, Twelfth Model and Hobbies Exhibition, Newbury Race course. Models, stationary engines, vintage exhibits, etc. Entries and details from F.G. Haines, 202 Benham Hill, Newbury, Berks. RG13 3HL. Tel. Thatcham (0635) 63747.

Sept. 12/13 'Yesterday's Farming' - the excellent 2-day event of South Somerset Agricultural Preservation Club - is at Leaze Far, Haselbury Plucknett, Crewkerne, Som. Entry forms from/to Brian Crudge, 22 Stoke Road, Taunton, Som. by 30th June with sae please.

Sept. 27 The Full Quart Crank-Up at Hewish near Weston-Super-Mare. Entries by invitation only due to limited space. Always an enjoyable event for exhibitor and spectator; proceeds to CLIC, a worthwhile cause so mark this one in your diary now.

CLUB EVENTS

June 29 Monthly meeting, talk by Derek Silk, steeplejack.

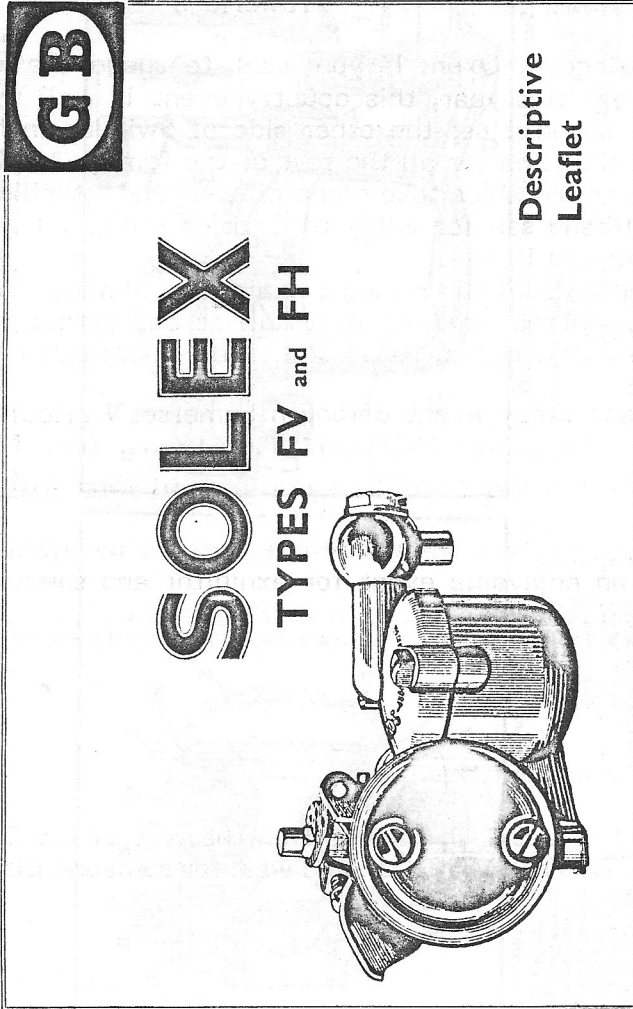
July 27 Monthly meeting, 'Guess the Object' a competitive quiz.

Aug. 24 Members's night, a chance for YOU - yes YOU, to entertain the rest of the Club, give a talk, slides, films or anything. Don't just sit back and wait for someone else to do it; this evening is YOURS.

CLUB RALLY, Cheddar Football Ground, June 20/21

To date, May 13, we have a good entry of nearly 150 engines; all we need is good weather. We would be grateful for Club members to bring along anything useful to sell on the Club Stall which raises cash to help defray rally expenses. There will be a car boot sale on the rallyfield, Sunday 10 a.m. to 2 p.m., anyone attending the event is welcome at £3 per boot, van, trailer, etc. Sally Pople, the popular local female vocalist will be entertaining us on the Saturday evening gathering. Please help make her welcome and generate some social atmosphere.

Finally, if any exhibitor wishes to stay on camping or caravanning after the event, the caravan site next door to the rallyfield offer a 50p per night reduction. See any Committee member for full details on rally day.



GENERAL NOTES

FLOODING CAUSED BY :

1. Loose joints at :
 - A. Joint of main jet carrier.
 - B. " " needle valve.
 - C. " " petrol union to the carburettor.

It is easy to see if any of these joints are loose or leaking, because flooding in A and B will appear at the main jet carrier and in C, petrol running down the float chamber bowl. Other causes may be due to (1), dirt or grit on needle valve seating or a badly worn needle valve ; (2), petrol pump pressure too high (it should not exceed 2½ lbs. square inch of pressure) ; (3), a punctured float ; (4), level too high caused by using a lighter spirit in the carburettor. Level can be checked in the manner described in the preceding paragraph. Also check for leakage from all petrol unions exterior to the carburettor.

DIFFICULT STARTING.

If difficult starting should occur, then the following points should be carefully checked to assist in diagnosis of the fault :—

- A. Stoppage or restriction of the petrol supply.
- B. Strangler not closing properly.
- C. Throttle open too much or not sufficiently.
- D. External air leakage.
- E. Faulty ignition.

The "F" Type SOLEX Carburettor Models FV & FH

DESCRIPTION

The "F" Type Solex Carburettor is made in two models :

1. The type F.V. with a vertical offtake.
2. The type F.H. with a horizontal offtake.

Type F.H. has alternative positions of the Float Chamber, viz. :—

Right-hand side, looking at air intake F.H.D. Left-hand side, looking at air intake F.H.G.

The type of carburettor which gives best results on each engine is already determined by tests at the manufacturers.

Although different in external appearance, F.V. and F.H. models function identically, basically consisting of two main parts :

A. The throttle chamber and carburettor body (shown as H and h).

B. The float chamber (O) and main jet assembly. The float chamber detachable from the throttle chamber by means of two dismounting bolts (E).

The petrol union containing a filter gauze is adjustable in a vertical plane to any required position.

For starting purposes a strangler device is fitted to the air intake, consisting of a gullion placed immediately on the atmospheric side of the choke tube of the horizontal or F.H. model. In the case of the vertical F.V. model, the strangler takes the form of a shutter mounted on a spindle in the mouth of the air intake. In all models of the F.V., except 26mm., the strangler is a separate attachment.

TO START ENGINE FROM COLD.

In order to start during cold weather, it is necessary to pull the strangler device to the fully closed position, and simultaneously open the throttle approximately halfway. Immediately the engine fires, gradually open up the strangler, until the engine is warmed up. This may necessitate driving a few hundred yards with the strangler partly closed, until the engine is warm enough to run without the device.

In exceptionally cold weather easy starting can best be obtained by turning the engine a few times switched "Off" with the strangler completely shut and throttle halfway. Then switch on, and without moving the throttle, open strangler gradually and the engine should start easily.

When the engine is hot, it is not necessary to employ the use of the strangling device.

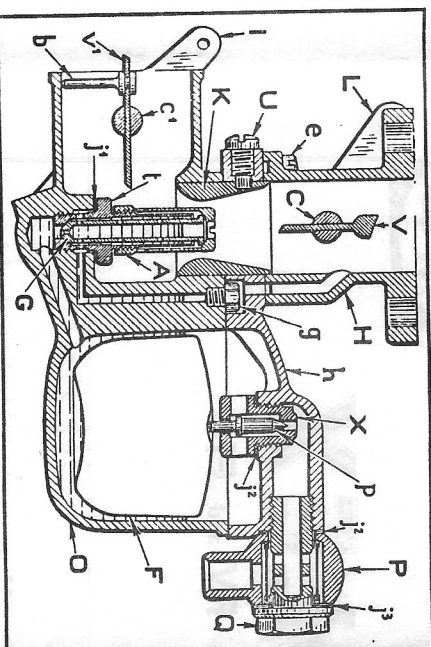


Fig. 1. Section of the Vertical Type Carburettor 26 FV.

- *A Main jet cap
B Strangler shutter stop
C Throttle spindle
D Strangler shutter spindle
E Body assembling screw
F Float
G Main jet
H Auxiliary jet
I Body of the carburettor
J Main jet carrier washer
K Choke tube
L Throttle lever
M Strangler lever
N Needle valve
O Float chamber
P Swivelling filter union
Q Needle
R Needle valve
S Needle valve
T Needle valve
U Needle valve
V Needle valve
W Needle valve
X Needle valve
Y Needle valve
Z Needle valve

The parts marked with an asterisk are stamped with one or more numerals.

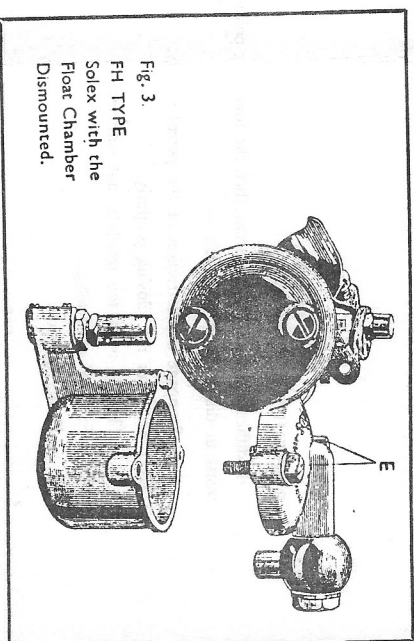


Fig. 3.
FH TYPE
SOLEX with the
Float Chamber
Dismounted.

GENERAL ADJUSTMENT OF THE CARBURETTOR.

The elements concerned in the adjustment of the Solex F type are :—

The choke tube (K), which controls the air volume supplied at varying velocities to the engine. The main jet (G) for the normal running range of mixture, and the auxiliary jet (I) for the idling mixture. Also included in the F type carburettor is the auxiliary mixture control screw.

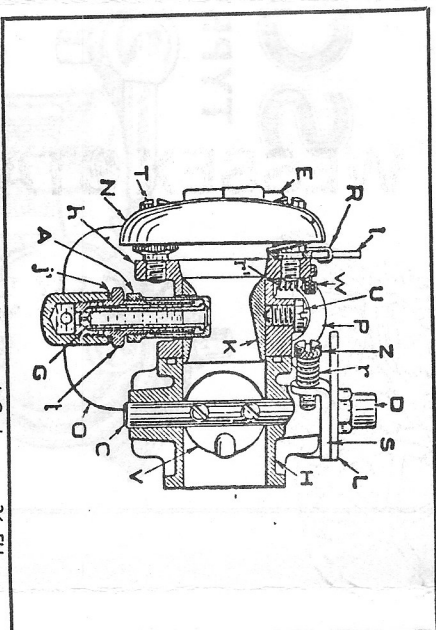


Fig. 2. Section of the Horizontal Carburettor 26 FH.

- *A Main jet cap
B Strangler shutter stop
C Throttle spindle
D Strangler shutter spindle
E Body assembling screw
F Float
G Main jet
H Auxiliary jet
I Body of the carburettor
J Main jet carrier washer
K Choke tube
L Throttle lever
M Strangler lever
N Needle valve
O Float chamber
P Swivelling filter union
Q Needle
R Needle valve
S Needle valve
T Needle valve
U Needle valve
V Needle valve
W Needle valve
X Needle valve
Y Needle valve
Z Needle valve

The parts marked with an asterisk are stamped with one or more numerals.

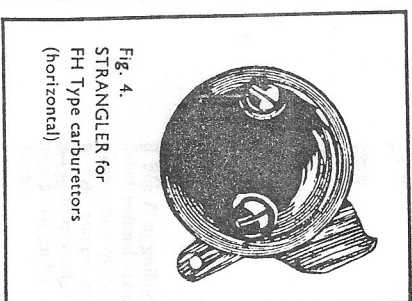


Fig. 4.
STRANGLER for
FH Type carburetors
(horizontal)

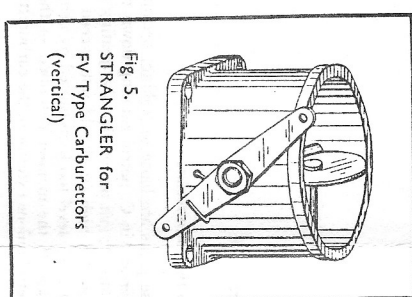


Fig. 5.
STRANGLER for
FV Type Carburetors
(vertical)

To dismount the choke tube (K), all that is necessary is to remove (in the case of the FH only, the air bell) the choke tube fixing screw placed in upper part of the body of the FH model, or, in the case of the FV, at the side, when the choke tube (K) can be easily withdrawn. When remounting, note the letter and numbers stamped on the choke rim itself, which must be on the atmospheric side of the carburettor on the FH or horizontal model and facing downwards on the FV or vertical type.

PETROL LEVEL.

The F type Solex carburettor can quite easily be tested for correct petrol level: by unscrewing the two dismounting bolts (E), the float chamber can be removed from the main body and by removing the main jet cap (A) and main jet (G), leaving the jet carrier (I) in position, the float chamber can be offered up in a reverse direction to normal, i.e., away from the choke tube—and petrol level should then appear about 3mm. below top of jet carrier (I) if correct.

DETERMINATION OF ADJUSTMENT.

The adjustment is determined in advance: after tests and experiments of great care have been carried out by engineers on road and bench, the settings are finalised and made standard.

This setting is supplied to the particular engine it has been designed for, to give a good, all-round performance in a temperate climate, from sea-level to 3,000 feet of altitude. So that it can readily be seen that, provided the engine is in good shape, it is as a rule unnecessary to make any departure from the standard setting supplied.

SLOW RUNNING ADJUSTMENT.

The slow running adjustment screw (Z) is mounted on the throttle abutment plate, and limits the closing of the throttle, thus regulating the rate of idling. Clockwise rotation of the screw increases the speed of idling and vice versa. In addition, the auxiliary mixture control screw (W) is intended, within certain limits, to alter the amount of air supplied to the auxiliary jet. By rotating the air screw clockwise, the mixture is richened and vice versa. An indication of the idling mixture can be assessed by the following rough rule :

1. If the engine is missing intermittently on one cylinder, generally mixture is too weak, therefore enrichen mixture.
2. If the engine is missing on all cylinders, i.e., hunting, the mixture is too rich, therefore weaken.

The method of slow running adjustment is as follows :—

Commence with the air regulating screw (W) fully screwed home, and the slow running screw set at the slowest tick-over possible, when the engine should "hunt" due to the rich mixture from the pilot jet. Then rotate the air regulating screw anti-clockwise until the engine runs evenly.

In exceptional cases, the range of this screw is insufficient to obtain the results required, and a larger or smaller pilot jet, whichever is necessary to adjust the even running of the engine to normal, must be used.