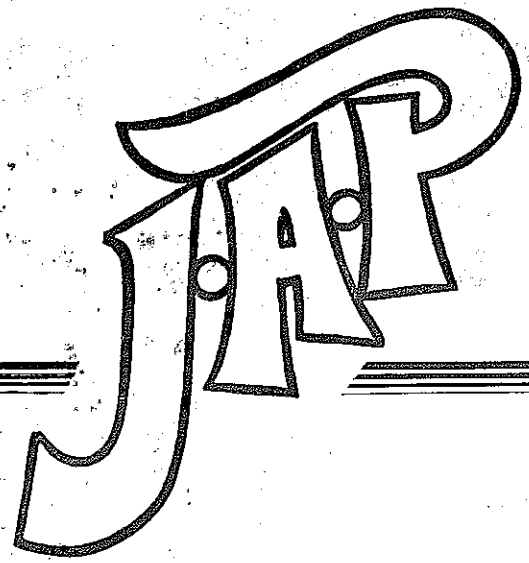


INDUSTRIAL ENGINE

MODEL 2A

ALL SPARE PARTS PRICES ARE SUBJECT TO 20% INCREASE

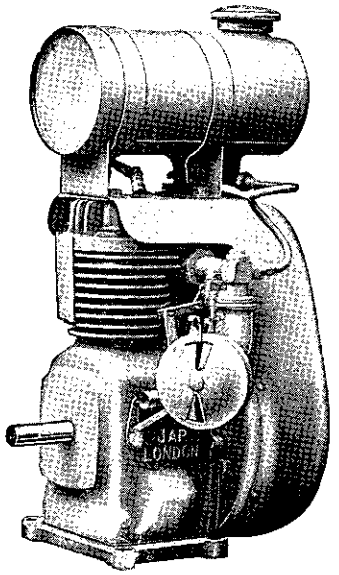
SB/D/03

REFERENCE BOOK

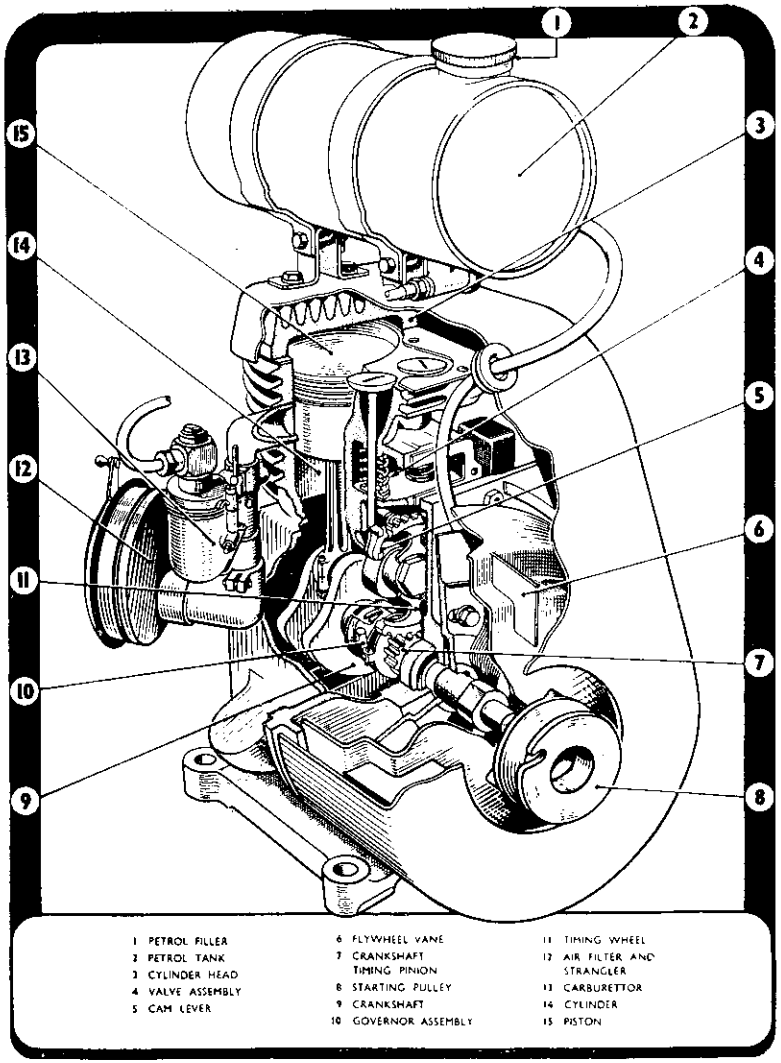
J. A. PRESTWICH INDUSTRIES LTD.
NORTHUMBERLAND PARK
LONDON, N.17. TOTtenham 3701

1304

J·A·P



Model 2a Engine



Model 2a Industrial Engine

DESCRIPTION

Engine.—Petrol, four-stroke. Air cooled. Type, 2A.
Main Dimensions.—Bore, 51·5 millimetres. Stroke, 47·6 millimetres. Cubic Capacity, 98 cc. Single Cylinder.
B.H.P.—1·3 at 3,600 Revolutions per Minute.
Valves.—Type, Mushroom. Side Valve.
Valve Clearances: EXHAUST ·008″; INLET ·008″.
INLET VALVE OPENS 8° before top dead centre with ·008 valve clearance; the correct opening and closing of the valves will follow.
Camshaft.—Type, one-piece spur, gear driven.
Piston.—Material, low expansion alloy. Two compression rings, 1 scraper ring. Gudgeon pin fixing by 2 circlips.
Connecting Rod.—Material, aluminium alloy. Type of big end bearing, plain. Shell.
Crankshaft.—Number of bearings, 2. Type, ball.
Carburetter.—Make, Zenith 13T.
Ignition.—Magneto. Wico flywheel. Timing, 30° before top dead centre. Drive, main shaft. Sparking plug, size 14 millimetres, as fitted.
Lubrication System.—J.A.P. patent design dipper, trough system Sump capacity, half-pint.
Fuel Tank Capacity.—Half-gallon.
Fuel Consumption.—·8 pints per B.H.P. hour.
Engine Weight.—36 lbs.
Rotation.—Looking at take-off shaft, anti-clockwise.

RECONDITIONING DIMENSIONS

Cylinder Bore.—Diameter, 2·0475″ or 2·0675″.
Oversize Pistons Available.—+·020″ and +·040″.
Undersize Bearings Available.—Connecting rod, ·7395″ and ·7295″.

RECOMMENDED CLEARANCE ON RECONDITIONING

Clearances.—Crankshaft and connecting rod, big end, ·001″ to ·0025″. Gudgeon pin and connecting rod, small end, ·0002″ to ·0008″.

Piston.—On diameter of piston: ·002″ skirt, ·009″ top land. Between piston rings and grooves, ·0015″ to ·004″. Between scraper ring and groove, ·001″ to ·0025″. Side clearances, connecting rod and crankshaft, ·004″ to ·011″.

INSTRUCTIONS FOR RUNNING

1. TO START ENGINE.

The starting up of this 4-stroke engine is **quite easy,** even under wide variations of atmosphere and temperatures.

When commercial petrol is used, it is advisable to add one tablespoon of engine oil with one gallon of fuel. This should be well mixed.

The following conditions **must,** however, be observed :—

(a) Turn on petrol, by means of the petrol tap, immediately under the petrol tank. (Pull out for " On.")

(b) That there is sufficient oil in crankcase. If not, remove the oil filler cap and slowly pour in oil to maximum level on the dip stick. Oil filler caps marked " CHECK OIL LEVEL WITH CAP UNSCREWED," remove cap and wipe dipstick, rest cap on top of oil filler boss to obtain correct reading.

For other type fillers the cap must be screwed down in position to obtain correct reading.

Care should be taken not to overfill.

RECOMMENDED LUBRICATING OILS

	ESSO	B.P.	SHELL	VACUUM	WAKEFIELD
United Kingdom—					
Summer ..	Essolube 50	Energol S.A.E. 40	Shell X100 40	Mobiloil BB	Castrol XXL
Winter ..	Essolube 30	Energol S.A.E. 30	Shell X100 30	Mobiloil A	Castrol XL
Overseas—					
90° F. and over	Essolube 50	Energol S.A.E. 50	Shell X100 50	Mobiloil BB	Castrol XXL
32° F.— 90° F.	Essolube 40	Energol S.A.E. 40	Shell X100 40	Mobiloil BB	Castrol XXL
10° F.— 32° F.	Essolube 30	Energol S.A.E. 30	Shell X100 30	Mobiloil A	Castrol XL

(c) Adjust the air strangler to a nearly or quite closed position, thus closing down the air. Free suction of rich mixture is then available to the cylinder for instant explosion.

(d) Fix the knot at end of starting cord into the slot in the pulley and wind the cord round the pulley, leaving sufficient cord to grip securely. Then pull upwards sharply, when the cord will release automatically.

(e) If the engine should not start a **slight** modification to the closed position of air strangler **lever** may be necessary, according to quality of petrol and atmospheric moisture or low temperature. Repeat the sharp pull of the cord, with modifications of air strangler, until the engine fires, then open the strangler to its normal vertical running position.

(f) Should the engine not start, after proceeding as above three or four times, the carburetter may by this time have become flooded, and a half-minute delay will neutralise this too rich mixture before attempting to start up. It will not be necessary to close the air strangler if the engine is sufficiently warm after having run for a period.

Practice of the variable adjustments of the air strangler will enable the operator to start engine quite easily.

If any difficulty in starting, do not blame the engine but carefully read " POSSIBLE SOURCES OF TROUBLE," Section 8.

3. SPEED REGULATION.

The engine when despatched is tested to correct speed.

The function of the governor is to maintain a constant speed when the engine is either running light, or under load, the speed can be varied when running by altering the tension of the spring attached to bottom of governor lever.

The adjustments should NOT be attempted UNLESS ABSOLUTELY NECESSARY.

4. LUBRICATION.

This is by the J.A.P. Patent System and is entirely automatic by " dipper " on the big end of the connecting rod, lifting the oil from a trough in the sump, affording ample supply to all working parts.

The oil in the crankcase should be replenished as necessary to high level shown on dipstick.

DO NOT REMOVE the oil filler cap whilst engine is running.

AFTER EVERY 50 HOURS' RUNNING, BUT MORE FREQUENTLY UNDER DUSTY CONDITIONS, and preferably when the engine is **HOT,** drain the oil, flush out the oil sump with flushing oil (paraffin should not be used), then refill with fresh lubricating oil after a small quantity of fresh oil has been run through, to make sure there are no traces of the flushing oil left in the sump.

5. IGNITION.

Ignition is fixed. If the magneto is removed for any reason, be careful to mark the relative position of engine and magneto before disconnecting, in order that the timing shall not be altered. The magneto is timed to spark at 30° before top dead centre.

6. TO STOP ENGINE.

Press Stop Button on the left side of cowl.

7. GENERAL.

When the engine is running, see that the lubrication is correct : a smoky exhaust will give an indication of over-lubrication, a VERY SLIGHT BLUE HAZE is correct. If the mixture will not fire, examine sparking plug ; test contact breaker, and if ignition is in order, the trouble may be the mixture.

When fitting Driving Pulley or Coupling to the Mainshaft it is essential to ensure that this is not unduly forced on the shaft, otherwise there is a danger of distorting the alloy cover plate immediately behind the flywheel magneto.

8. POSSIBLE SOURCES OF TROUBLE.

Failure to start engine.

If the instructions given for starting up have been carried out, and the engine still refuses to start, this may be due to one of the following :—

Lack of compression, which may be caused by :—

(a) **Insufficient valve clearance.** There should be a clearance of ·008″ between cam lever and valve stem throughout the closed period of valve when the engine is cold.

(b) **Dirt under valve seating.** This may possibly be cured by holding the valve open, at the same time turning the engine quickly with the starting cord. If this has no effect, remove cylinder head for examination of valve seating.

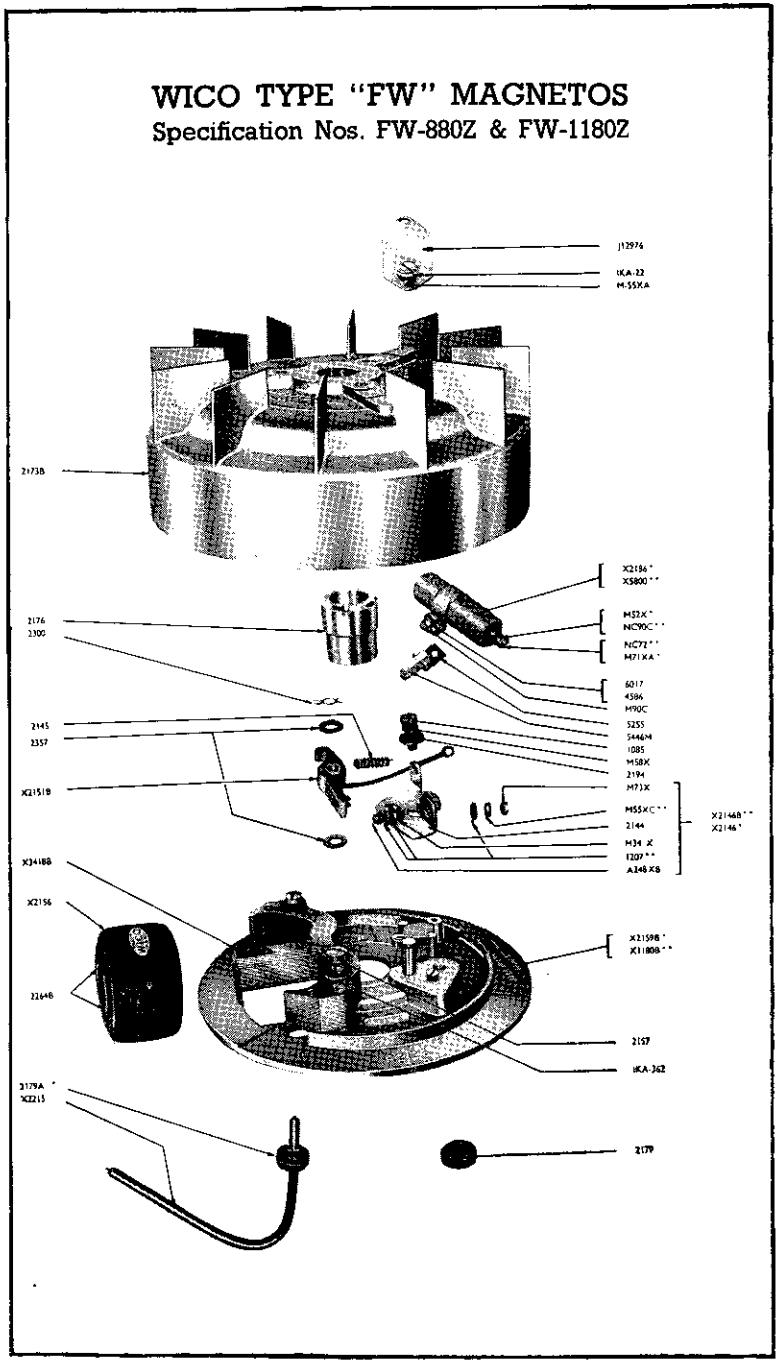
(c) **Joint between cylinder head and top of cylinder not tight.** This defect is not likely to occur unless cylinder head has been removed, and replaced incorrectly.

Dirt or water in carburetter or petrol pipe.

Remove and clean filter on petrol tap, also petrol union on top of float chamber. Remove screws from lid of float chamber, and remove float, then clean out any foreign matter from float chamber and needle seat.

Ignition.

Should there be good compression in the cylinder, and high tension wire be properly attached to sparking plug, remove plug and examine points. There should be a gap of ·018″ between points. If plug appears to be in order, lay it on top of cylinder with wire attached, so that only body of plug is earthing, and see that there is a good spark between the points when engine is turned.



MAGNETO ASSEMBLY ILLUSTRATION

OWING TO MARKET CONDITIONS PRICES ARE SUBJECT TO ALTERATION WITHOUT NOTICE

MAGNETO SPARE PARTS LIST

Part No.	Description	Quantity	Price Each s.	d.
J.12976	Flywheel Inspection Cover	1	1	0
IKA-22	Flywheel Inspection Cover Screw	2		2
M-55XA	Flywheel Inspection Cover Screw Lock Washer	2		2
2176	Breaker Cam	1	4	8
2300	Breaker Cam Lock	1		3
2357	Breaker Arm Clamp Washer	2		2
2145	Breaker Arm Spring	1		6
X.2151B	Breaker Arm Group	1	6	6
X.3418B	Stator Plate (consists of Core and Plate only)	1	28	0
X.2156	Coil Assembly	1	28	0
2264B	Coil Wedge	2		2
**2179A	H.T. Lead Wire Bushing	2		3
X.2215	H.T. Lead Wire Group—16″	1	2	4
2173B	Flywheel	1	65	0
*X.2186	Condenser Group	1	7	6
**X.5800	Condenser Group	1	9	4
*M.52X	Condenser Nut Lock Washer	1		2
**NC.90C	Condenser Nut Lock Washer	1		2
**NC.72	Condenser Nut	1		2
*M.71XA	Condenser Nut	1		2
6017	Condenser Clamp Screw (Long)	1		2
4586	Condenser Clamp Screw (Short)	1		2
M.90C	Condenser Clamp Screw Lock Washer	2		2
5255	Cam Pad Bracket	1		3
5446M	Cam Pad	1		2
1085	Breaker Plate Clamp Screw	1		2
M.58X	Breaker Plate Clamp Screw Lock Washer	1		2
2194	Breaker Plate Clamp Screw Washer	1		2
M.73X	Fixed Contact Nut	1		2
**M.55XC	Fixed Contact Lock Washer	1		2
M.34X	Fixed Contact Insulating Bushing	1		2
2144	Breaker Plate	1	1	0
**X.2146B	Breaker Plate Group (consists of all items within bracket)	1	3	9
*X.2146	(See below)			
**1207	Fixed Contact Washer	3		2
A.248XB	Fixed Contact	1	1	6
2157	Core Screw	2		2
IKA-362	Core Screw Lock Washer	2		2
*X.2159B	Stator Plate Assembly (includes X.2146, X.2151, X.2156 and X.2186)	1	80	0
**X.1180B	Stator Plate Assembly (includes X.2146B, X.2151B, X.2156 and X.5800)	1	80	0
2179	Earth Wire Bushing	1		3
*X.2146	Breaker Plate Group (consists of A.248XB, IXA.256, IXA.862, M-34X, M-55XA, M.73X and 2144	1	3	9
*IXA.256	Breaker Plate Fixed Contact Washer	2		2
*M.55XA	Fixed Contact Lock Washer	2		2

PLEASE NOTE

* Denotes Parts used on FW.880 Z. only.

** Denotes Parts used on FW. 1180 Z. only.

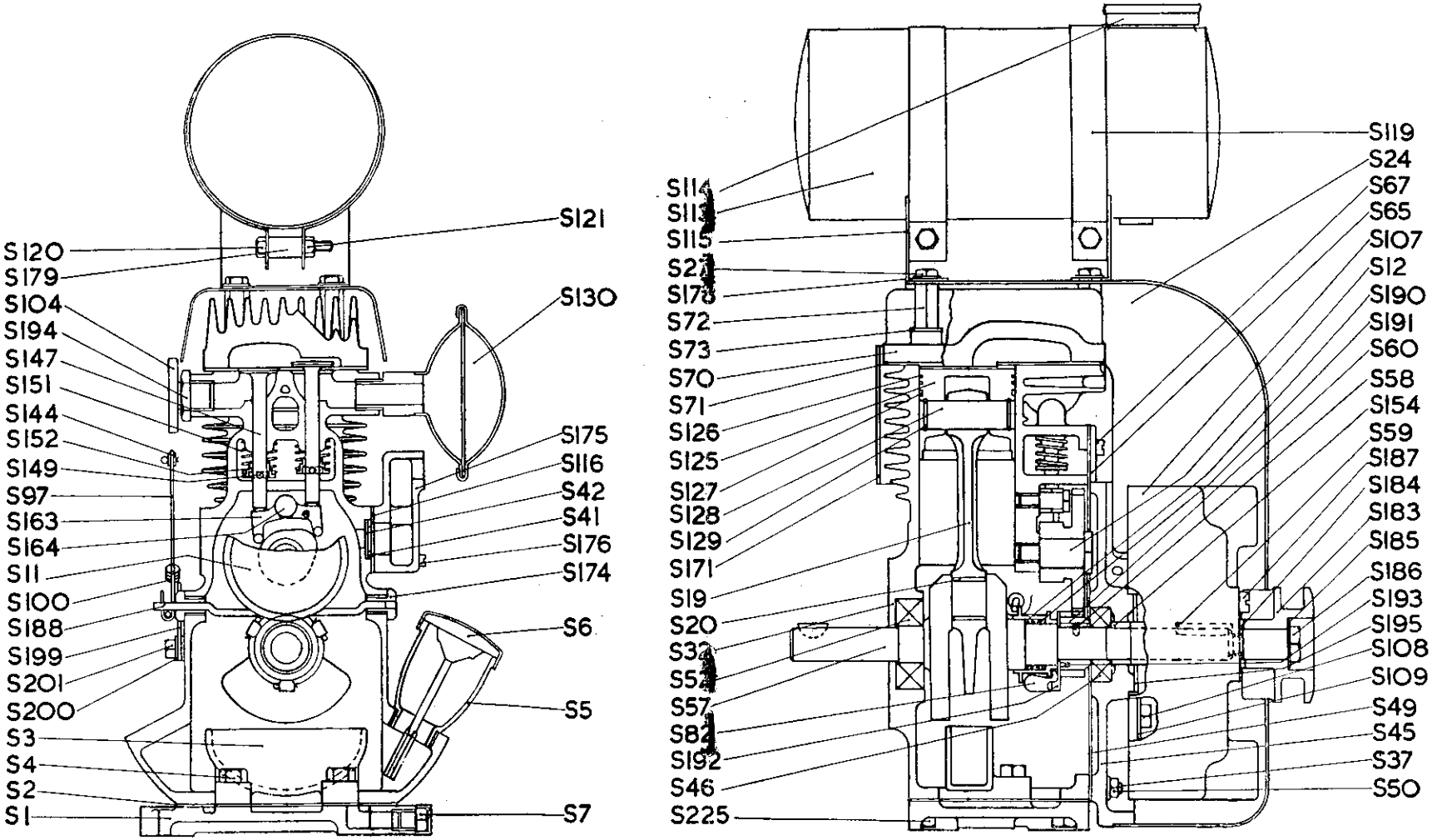
Absence of asterisk denotes these parts to be common to both types of Magneto.

It is essential to quote the Engine Number with all symbols, when ordering Spares owing to the different Engine parts fitted to various customers' equipment.

Failure to do this may result with incorrect spares being supplied.

Magneto spares prices are strictly retail and not subject to increase.

Postage and Carriage Charges extra.



SPARES CODE REFERENCE LETTER

MODEL 2A—SB

OVERHAULING ENGINE.

To dismantle Engine.

Disconnect high tension cable from sparking plug.

Remove sparking plug.

,, petrol pipe.

,, petrol tank, complete with brackets and straps.

,, cowl, drawing high tension cable through rubber grommet.

,, breather box, and baffle.

,, magneto flywheel, using special extractor supplied for this purpose.

,, high tension cable clip.

,, cylinder head, and valve box cover.

,, magneto and felt sealing ring, first disconnecting cut-out wire.

,, aluminium bearing plate. (6 nuts.)

Disconnect governor control spring, remove throttle link and throttle lever from carburetter, and from external end of governor rod.

Unscrew carburetter from inlet pipe.

Remove governor rod bush from crankcase.

,, camwheel bolt, camwheel, cam lever bolt, and cam levers.

,, pinion, with special extractor supplied for this purpose, together with governor weight rings.

,, governor sleeve and spring.

,, engine base with oil trough.

,, split pins from big end bolts of connecting rod.

,, nuts, and big end cap from connecting rods.

,, connecting rod and piston complete by drawing upwards through cylinder.

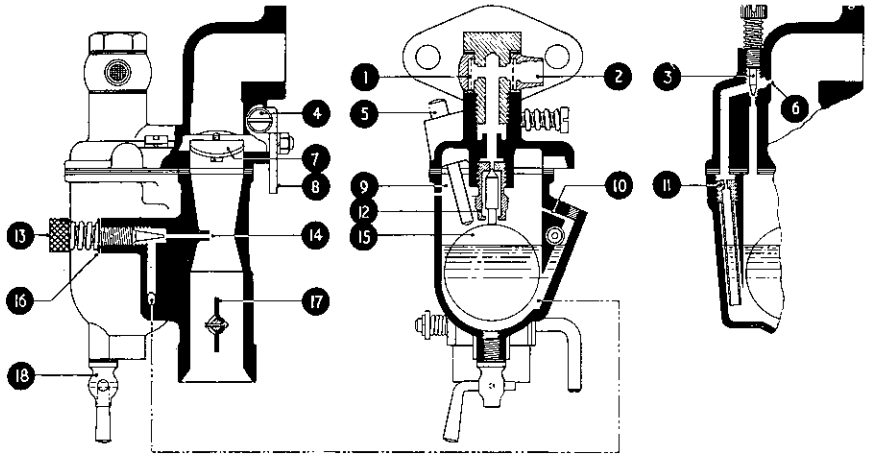
,, rings from piston, one circlip, and gudgeon pin.

Compress valve springs with collars, and remove cotters.

Remove crankshaft from crankcase.

To reassemble the Engine.

Reverse the above procedure.



CARBURETTER MAINTENANCE AND SECTIONAL ILLUSTRATION

DIAGRAMMATIC SECTION OF TYPE 13T CARBURETTER

General Description.

The 13T carburetter shown above is a vertical instrument of exceedingly simple design, for use on small petrol engines. It has a high non-flooding angle in all directions; it is ideal for agricultural, marine and general industrial equipment. The carburetter consists of two principal castings. The upper portion or throttle body incorporates the right angle inlet bend and the fixing flange which can be bolted directly on to the inlet port or cylinder; the lower portion consists of the float chamber (or bowl) and the air intake. The choke tube is cast integral as part of the air intake. It is 9.5 millimetres internal diameter at the restricted portion, whilst the internal diameter of the throttle bore outlet is 13 millimetres at the flange.

Fuel Supply and Metering System.—Petrol entering the banjo fitting (2) is filtered by the gauze screen (1) and passes through the combined needle and seating valve (12) into the bowl (9). The float (15) will rise and close the needle valve when the correct petrol level is reached in the bowl. A tickler or flooder (5) is provided which enables the float to be depressed, and as a result the fuel level will be raised in order to assist starting when cold. A small

overflow hole in the bowl above the normal fuel level prevents excessive flooding. A small drain cock (18) is fitted to the base of the bowl for Paraffin.

High Speed Operation.—Fuel metering at high engine speed is controlled by an adjustable main jet. The outlet of the main jet discharge tube (14) is placed at the restricted part of the choke tube which forms part of the bowl. The main jet adjusting screw (13) has a tapered end which enters the tube (14), thus controlling the quantity of fuel passing into the choke tube. The volume of petrol/air mixture passing into the cylinder is controlled by the butterfly throttle (7) which in turn is operated by the throttle lever (8). A small air-bleed hole (10) is provided in the main-jet system; inside air is used for this purpose.

Idle Operation.—The slow-running channel carries fuel from the combined jet and dip-tube to the small idling hole (6) on the engine side of the throttle. Air for slow-running is taken from inside the carburetter, and is controlled by the adjusting screw (3). Turning this screw clockwise enrichens the slow-running mixture and vice-versa.

Easy Starting.—This is ensured by the air strangler or choke (17) and during very cold weather the tickler (5) can also be used. When the engine has been switched off a short period it is not usually necessary to use the choke when restarting; it may, however, be an advantage to use the tickler in order to ensure an immediate fire when the engine is turned over.

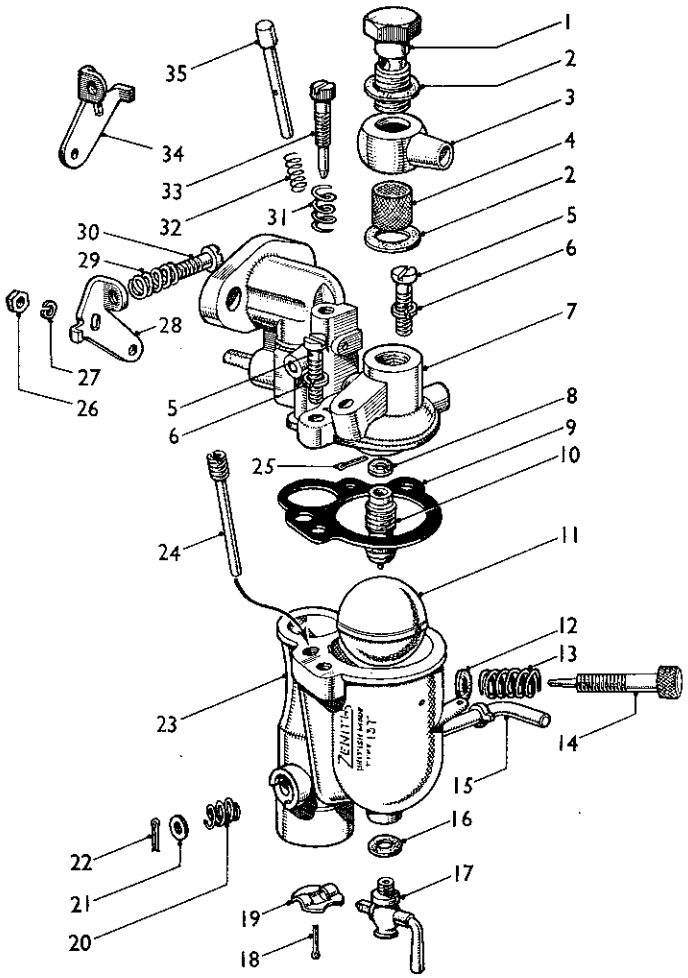
ADJUSTMENTS AND MAINTENANCE

Adjusting Main Jet.—The main jet adjustment (13) is set by the engine manufacturer and should not be altered without good reason. This adjustment is always somewhat sensitive on small engines, consequently it should not be altered more than one-eighth of a complete turn until the effect of any such adjustment has been noted. (The shallow notch in the head is provided only to indicate the position of the screw). Always make this adjustment with the engine under load at normal full speed with the throttle wide open. It is not satisfactory to adjust the main jet when the engine is running light on the speed governor with the throttle nearly closed. Turning the screw (13) to the right. i.e., clockwise, will reduce the fuel flow and weaken the mixture supplied to the engine. Turning the screw anti-clockwise will increase the flow of fuel and provide a richer mixture. *Do not force the screw into its seating as this will damage the taper*, thereby making correct adjustment extremely difficult. If the setting is too weak it will result in

lack of power and possibly over heating of the cylinder, together with poor pick-up or cutting-out when the load is applied. Do not attempt to operate on a very lean mixture, as better performance and fuel economy will be objained if the mixture is set for full power. An excessively rich mixture will produce black smoke from the exhaust and may cause rapid carbon formation in the cylinder head and on the piston crown. Also carbon will quickly form on the sparking plug points, resulting in difficult starting. The head of adjusting screw (13) is drilled for a locking wire, and a small drilled lug on the bowl is provided for the other end of the wire. The washer (16) prevents fuel leaking along the thread of the screw.

Adjusting Idle Speed.—The throttle stop screw (4) should be turned clock-wise to increase the idle speed. Turning this screw anti-clockwise will reduce the speed at which the engine runs with the throttle in the closed position. It is usual to set the idling speed at 600-700 r.p.m. Smooth idling is ensured by regulating the mixture screw (3), the head of which is drilled for a locking wire. In case of difficulty in obtaining satisfactory idling, make quite sure the gasket between the bowl and the barrel is in good condition and that the attachment flange on the barrel portion is perfectly flat. A thin gasket should always be used at this flange joint.

Flooding.—This may be caused by excessive engine vibration, dirt in the needle seating, or possibly by the tickler (5) sticking down and depressing the float. Should the flooding continue after cleaning and checking the carburetter, the next step is to fit the new needle seating (12) as this part is subject to wear as a result of engine vibration. Check and clean the filter gauze in the banjo fixing the petrol pipe to the carburetter. It is not intended that the petrol level should be altered.



EXPLODED ILLUSTRATION OF CARBURETTER

OWING TO MARKET CONDITIONS PRICES ARE SUBJECT TO ALTERATION WITHOUT NOTICE

CARBURETTER SPARE PARTS SCHEDULE

(For Carburetter C.1392)

Ref. No.	Description	Part No.	Price each s.	d.
1	Plug for Petrol Elbow	013891	2	6
2	Washer for Petrol Elbow (2 off)	11007		1
3	Petrol Elbow	013892	2	0
4	Filter Gauze	013893		6
5	Screw fixing Bowl to Barrel (2 off)	07967		2
6	Spring Washer for Screw (2 off)	015536		1
7	Carburetter Barrel (assembled with Throttle and Throttle Spindle)	015741	24	0
8	Washer for Needle Seating	F.1144		1
9	Gasket (Barrel to Bowl)	015532		6
10	Needle and Seating	013642	5	0
11	Float	013631	3	0
12	Washer for Adjustment Needle	16709		1
13	Spring for Adjustment Needle	08946		3
14	Adjustment Needle	013637	1	0
15	Strangler Spindle	015530	2	0
16	Drain Tap Washer (For C.1395 only)	09238		1
17	Drain Tap (For C.1395 only)	09506	5	0
18	Split Pin Fixing Strangler Flap	05370		1
19	Strangler Flap	013635	1	0
20	Strangler Flap Friction Spring	013650		3
21	Strangler Flap Retaining Washer	08860		1
22	Strangler Flap Split Pin	05370		1
23	*Carburetter Bowl (Petrol only)	015459	25	0
24	Slow-running Tube (State size required)	015461	2	6
25	Split Pin for Tickler	05890		1
26	Nut Fixing Throttle Lever	P-16639		2
27	Spring Washer for Throttle Lever Nut	04692		1
28	Throttle Lever	013622		6
29	Spring for Throttle Stop Screw	08539		3
30	Throttle Stop Screw	07967		2
31	Spring for Air-regulating Screw	015458		3
32	Spring for Tickler	015454		1
33	Air-regulating Screw	015457		9
34		Not used		
35	Tickler Stem	013816	1	0
	Carburetter Assembled Complete (Petrol)	C.1392	50	0
	*Carburetter Bowl for Paraffin Carb. C.1395	015573	25	0
	Carburetter Assembled Complete Paraffin	C.1395	55	0

It is essential to quote the Engine Number with all symbols when ordering Spares owing to the different Engine parts fitted to various customers' equipment.

Failure to do this may result with incorrect spares being supplied.

Postage and Carriage Charges extra.

Carburetter spares are subject to 20% increase.

Owing to market conditions, prices are subject to alteration without notice.

MODEL 2A ENGINE SPARE PARTS LIST

Code No.	Title	No. Off	Price each s.	d.
SB. 1	Base—Engine	1	14	3
,, 2	,, Gasket	1	0	3
,, 3	,, Oil Trough	1	4	6
,, 4	,, ,, ,, Fixing Bolt	2	0	6
,, 7	,, ,, Drain Plug	1	0	9
,, 225	,, Fixing Bolt	4	0	6
,, 163	Camlever	2	2	3
,, 164	,, Pin	1	1	9
,, 11	Camwheel	1	9	0
,, 12	,, Spindle	1	4	6
,, 14	Carburetter	1	55	0
,, 165	,, Support Bracket	1	0	9
,, 166	,, ,, ,, Fixing Bolt	1	0	5
,, 167	,, ,, ,, ,, Screw	1	0	3
,, 168	,, ,, ,, ,, ,, Nut	1	0	3
,, 169	,, Air Filter	1	9	0
,, 277	,, Elbow	1	5	8
,, 19	Connecting Rod	1	15	0
,, 20	,, ,, Liner—Big End	Pair	4/6	Pair
,, 21	,, ,, Bolt — ,, ,,	2	1	0
,, 22	,, ,, ,, Nut—Big End	2	0	9
,, 24	Cowl	1	15	9
,, 170	,, Fixing Screw	4	0	3
,, 171	,, Baffle	1	5	9
,, 172	,, ,, Locknut	1	0	3
,, 173	,, Grommet	2	0	5
,, 32	Crankcase and Cylinder Barrel	1	105	0
,, 174	,, Bush—Governor Rod	2	1	2
,, 52	,, Bearing—Driving Side	1	12	10
,, 175	,, Breather Box	1	3	0
,, 41	,, ,, ,, Grating	1	2	9
,, 42	,, ,, ,, ,, Disc	1	0	3
,, 279	,, ,, ,, Union	1	0	9
,, 280	,, ,, ,, Pipe Assembly	1	4	0
,, 116	,, ,, ,, Gasket	1	0	2
,, 176	,, ,, ,, Fixing Screw	2	0	3
,, 188	,, Governor Rod	1	1	11
,, 37	,, Stud—Bearing Plate Fixing	6	0	3
,, 189	,, Locating Dowel	2	0	3
,, 45	,, Bearing Plate	1	16	6
,, 46	,, Bearing—Flywheel Side	1	11	4
,, 158	,, ,, Retaining Screw	3	0	3

It is essential to quote the Engine Number with all symbols when ordering Spares owing to the different Engine parts fitted to various customers' equipment.

Failure to do this may result with incorrect spares being supplied.

Postage and Carriage Charges extra.

Customers' patterns not returned unless specially requested.

Owing to market conditions, prices are subject to alteration without notice.

Code No.	Title	No. Off	Price each s.	d.
SB. 49	Crankcase Bearing Plate Gasket	1	0	6
,, 50	,, ,, ,, Fixing Nut	6	0	3
,, 5	,, Oil Filler Tube—Screwed Type	1	3	9
,, 6	,, Oil Filler Cap and Dipstick—Screwed Type	1	4	2
,, 57	Crankshaft	1	57	0
,, 190	,, Governor Sleeve	1	1	6
,, 191	,, ,, ,, Spring	1	0	6
,, 192	,, ,, Ring	1	1	3
,, 82	,, ,, Weight	3	0	5
,, 60	,, Pinion	1	6	9
,, 58	,, ,, Pin	1	0	3
,, 154	,, Distance Piece	1	1	0
,, 59	,, Key—Magneto Fixing	1	0	6
,, 222	,, ,, Driving Side	1	0	6
,, 70	Cylinder Head	1	30	0
,, 71	,, ,, Gasket	1	4	6
,, 72	,, ,, Fixing Bolt, long	4	0	11
,, 162	,, ,, ,, ,, short	2	0	5
,, 73	,, ,, ,, ,, Washer	6	0	3
,, 104	Inlet Pipe Assembly	1	5	6
,, 105	,, ,, Gasket	1	0	5
,, 194	,, ,, Locknut	1	0	6
,, 17	,, ,, Screw—Carburetter Fixing	2	0	3
,, 285	,, ,, Screw Washer	2	0	1
,, 107	Magneto—Flywheel Type	1	110	0
,, 195	,, Sealing Ring	1	4	6
,, 108	,, Fixing Bolt	2	0	5
,, 109	,, Fixing Bolt Washer	2	0	3
,, 177	,, Cut-out Switch	1	4	9
,, 113	Petrol Tank with Cap	1	18	0
,, 114	,, ,, Filler Cap	1	2	3
,, 115	,, ,, Bracket	2	1	3
,, 178	,, ,, ,, Washer	4	0	3
,, 27	,, ,, ,, Fixing Bolt	4	0	5
,, 119	,, ,, Fixing Strap	2	1	6
,, 120	,, ,, Fixing Strap Screw	1	0	9
,, 121	,, ,, ,, ,, ,, Nut	2	0	3

It is essential to quote the Engine Number with all symbols when ordering Spares owing to the different Engine parts fitted to various customers' equipment.

Failure to do this may result with incorrect spares being supplied.

Postage and Carriage Charges extra.

Customers' patterns not returned unless specially requested.

Owing to market conditions, prices are subject to alteration without notice.

Code No.	Title	No. Off	Price each s.	d.
SB. 224	Petrol Tap	1	4	6
,, 123	,, ,, Washer	1	0	3
,, 124	,, Pipe with Unions	1	6	0
,, 125	Piston	1	16	6
,, 126	,, Ring—Compression, top Groove	1	1	6
,, 244	,, ,, ,, second Groove ...	1	2	6
,, 127	,, ,, Oil Scraper, bottom Groove ...	1	2	3
,, 128	,, Pin	1	3	0
,, 129	,, ,, Circlip	2	0	3
,, 130	Silencer	1	7	6
,, 135	Spanner—Engine	1	2	3
,, 136	,, Sparking Plug	1	2	3
,, 137	,, Tommy Bar	1	0	9
,, 181	Special Tool—Flywheel Extractor	1	3	0
,, 182	,, ,, Pinion	1	2	3
,, 138	Sparking Plug	1	5	0
,, 139	,, ,, Protector	1	1	6
,, 183	Starting Pulley Complete, SA. 2730	1	4	6
,, 198	Starting Cord with Toggle	1	1	9
,, 147	Valve	2	4	11
,, 149	,, Cotter	2	0	3
,, 151	,, Spring	2	0	9
,, 152	,, Collar	2	0	11
,, 65	,, Cover	1	0	6
,, 67	,, ,, Fixing Screw	2	0	3
,, 100	,, Spring	1	1	3
,, 102	Throttle Spring Adjuster	1	1	6
,, 103	,, ,, ,, Nut	1	0	3
,, 144	,, Link	1	0	6
,, 265	Throttle Link Fixing Screw	2	0	2
,, 97	,, Control Arm	1	0	11
,, 99	,, ,, ,, Fixing Screw	1	0	3
,, 94	,, Slow Running Lever	1	0	9
,, 95	,, ,, ,, ,, Washer	1	0	3
,, 96	,, ,, ,, ,, Screw	1	0	6
,, 287	,, ,, ,, ,, ,, Locknut ...	1	0	3

It is essential to quote the Engine Number with all symbols when ordering Spares owing to the different Engine parts fitted to various customers' equipment.

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Postage and Carriage Charges extra.

Customers' patterns not returned unless specially requested.

Guarantee

WE GUARANTEE, subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship; but this guarantee is to extend and be in force for six months only from date of purchase, and the damages for which we make ourselves responsible under this guarantee are limited to the replacement of any part which may have proved defective.

WE UNDERTAKE, subject to the conditions mentioned below, to make good at any time within six months any defects in these respects. As equipment is easily liable to derangement by neglect or misuse, this guarantee does not apply to defects caused by wear-and-tear, misuse or neglect.

CONDITIONS OF GUARANTEE.

If an alleged defective part should be found in our equipment it must be sent to us, carriage paid, and accompanied by an intimation from the sender that he desires to have it replaced free of charge, under our guarantee, stating clearly the nature of the fault, and he must also furnish us at the same time with the number of the Engine, the name of the Agent from whom he purchased, and the date of the purchase. Failing compliance with the above, no notice will be taken of anything which may arrive, but such articles will lie here at the risk of the sender and this guarantee, or any implied guarantee, shall not be enforceable.

COMPLAINT.

In all cases of complaint the full nature of the complaint must be stated.