

SPARK PLUG MANUAL

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The Story behind K.L.G.

In 1912 when the early racing cars were attaining higher and higher engine-speeds, Kenelm Lee Guinness, an enthusiastic amateur racing driver, found that development was handicapped by the inability of the plugs of those days to withstand the increasingly severe engine conditions. In his racing workshops at an old, disused inn called the "Bald Faced Stag" at Putney Vale, near London, he set out to design and build a sparking plug to satisfy his own needs. His first plugs proved so superior that Guinness was soon receiving insistent demands from his friends in the motor-racing world for "plugs like K.L.G.'s". So, in a very small way, production began in the cellars of the old inn.

The fame of the new plugs spread rapidly. More and more were made to satisfy a rapidly growing demand, and then special plugs were designed to meet the needs of the infant aircraft industry. 1914 brought war, and the little factory began to pour out an ever increasing supply of plugs for the services, including the Royal Flying Corps (forerunner of the R.A.F.) and the Royal Naval Air Service. By the end of the 1914-18 war, K.L.G. plugs were world-famed among flying men, and the "Bald Faced Stag" had been augmented by a modern factory employing over 1,500 people.

In 1919, S. Smith & Sons (M.A.) Ltd., acquired the world selling rights for K.L.G. products, and eight years later the company passed completely into Smiths hands, with Guinness himself remaining as consultant. From 1919 until World War II, K.L.G. plugs were used in almost every motoring, motor cycling and aeronautical achievement of note both in Great Britain and overseas. The factory also produced a number of special engines and two complete record-breaking cars—Sir Henry Segrave's "Golden Arrow" and Sir Malcolm Campbell's "Bluebird".

So to the present day; research and development continue apace, for the sparking plug industry must be ready to meet any demands that new engines, including jets, may make upon it. From small beginnings in a cellar to a large, well equipped and up-to-date factory where the memory of a man of outstanding ability is perpetuated in the famous initials "K.L.G."

COMPARISON CHART

Standard Plugs

Thread		Heat Value	APPROXIMATE EQUIVALENT HEAT RANGE								
Size	Reach		K.L.G.	Lodge	A.C.	Autolite	Beru	Bosch	Champion	Marelli	N.G.K.
10MM	$\frac{1}{2}''$	HOT	T30								
			T70								
		COLD	T90	2HL10		PE3		U200T1	Z10, Z8		C7-HW, C7-HS, C9-H
12MM	$\frac{1}{2}''$	HOT	TW270	HB12		HE3					D8H
			TW275	H12		HE2, HE1			P7		D8HS, D9H, D10H
		COLD	TW280	2H12							D12H
14MM	$\frac{3}{8}''$	HOT	FS20	BAN	48	A11, AT10	95/14/5		UJ12		
			FS50	CAN	45, C45, VF9	A7, AT6	145/14/5	W145T3	J8J, J8	CW150P	B6
		COLD	FS75	HAN	43, C43, 43COM	A3, AT3	225/14/5	W225T3	J5, J6, J6J	CW175JC	B7
			FS100	3HAN	42				J4, J2, J4J		
14MM	$\frac{1}{2}''$	HOT	F20	BN	46FF		95/14	W95T1	L14	CW50N	
			F50	CN	45F, 45FF	AE6	145/14	W125T1	L10, L90	CW150N	B4H
			F70	HBN	44F, 44FF	AE4	175/14	W145T1		CW175N	B6H
			F75	HN	43F, 43FF, 43FO	AE3	225/14	W175T1 W225T1	L7, L85, L86	CW225N	B7H, B7HZ
			F80	2HN	42F	AE2	240/14	W240T1	L5, L81	CW240N	B8H
		COLD	F100	3HN	41F		260/14	W260T1		CW260N	
			F220								
14MM	$\frac{3}{4}''$	HOT	FE20	BL14		AG9	95/14/3		N21	CW50L	B-4E
			FE50	CLNH	46XL, 46N	AG5	175/14/3	W125T2 W145T2	N8	CW150L	B-6E
			FE70	HBLN	45XL, 45N	AG4, AG3		W160T2	N5, N6, N84	CW225LV	B-7E
			FE75	HLN	44XL, 44N	AG2	225/14/3	W175T2	N4		B-8E
			FE80	2HBLN	43N, 43XL		240/14/3	W225T2 W240T2 W240T17	N3	CW250L	B-9E
		COLD	FE100	3HBLN			260/14/3	W260T2 W270T17		CW275L	
			FE220								
18MM	$\frac{1}{2}''$	HOT	M30	BBL	87	BT8	95/18	M95T1	8COM, D16	CM100A	
			M50	CV	C85H	BT6	145/18	M145T1	7COM, D14	CM150A	
		COLD	M60	HV	83COM, C83H	BT4	175/18	M175T1	D10, UK10	CM200A	A-6
18MM	$\frac{3}{4}''$		ML30	CB3	88LCOM, 10COM	BT10, BR10		M45T2	9COM, 10COM		

Projecting Nose Plugs

Thread		Heat Value	APPROXIMATE EQUIVALENT HEAT RANGE								
Size	Reach		K.L.G.	Lodge	A.C.	Autolite	Beru	Bosch	Champion	Marelli	N.G.K.
14MM	$\frac{3}{8}''$	HOT	FS35P	BBANY		A82			J18Y		
			FS45P	BANY	45S	A52			J14Y		BP-4
		COLD	FS55P	CANY	44S	AT42, A42			J10Y, J13Y, J12Y		BP-6
14MM	$\frac{1}{2}''$	HOT	F55P	CNY	43FS	AE52		W175T7	UL12Y, L92Y, L95Y		
			F65P	HNY		AE32		W200T35 W225T7	L87Y		
		COLD	F85P	2HNY	42FS	AE22			L82Y		
14MM	$\frac{3}{4}''$	HOT	FE45P	BLNY		AG52		W145T30	N14Y		BP-4E
			FE55P	CLNY	44XLS	AG42		W160T30 W175T30	UN12Y, N11Y		BP-6E
			FE65P	HLNY		AG32		W200T36 W225T30 W200T30 W200T27	N10Y, N9Y		BP-7E
			FE125P	2HLNY	42XLS	AG22		W230T30 W215P21 W225T27 W225T28 W215T28	N6Y, N64Y		
			FE135P	3HLNY				W235P21 W240T28	N63Y		
		COLD	FE145P	4HLNY				W240T21 W250P21	N62Y		
			FE155P	5HLNY					N60Y		
14MM	Taper		FT85P	2HTY	42TS						
18MM	TAPER	HOT	MT45P	BTNY	85TS	BF82		MA125T7	F14Y		AP-4F
			MT55P	CTNY	84TS	BF42		MA145T7	F11Y		AP-6F
		COLD	MT65P	HTNY	83TS	BF32		MA175T7	F9Y		

Symbol Explanation

The initials in K.L.G. type numbers have definite meanings; individual letters/numbers describing individual aspects of the spark plug.

The NUMERALS with these initials indicate heat value—see the comparison chart.

"M"	18 mm diameter thread.	"L"	Long reach 18 mm.
"F"	14 mm diameter thread.	"E"	Extra long reach 14 mm.
"TW"	12 mm diameter thread.	"T"	(Prefix) 2nd letter Taper seat.
"T"	(Prefix) 10 mm diameter thread, small hexagon $\frac{5}{8}$ "	"P"	(Suffix) Projecting nose.
"S"	Short reach.		

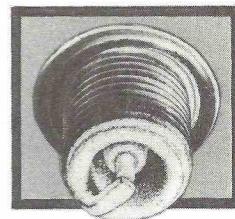
Choosing the right Plug

Selecting a plug would be a simple matter if size were the only consideration. Unfortunately, the running temperature, type of duty and general condition of the engine play equally big parts. A cool-running engine may develop insufficient heat to burn off the oil and fuel deposits which would form on a normal type of plug, in which case the plug will become fouled and cease to function. Cool engines, therefore, and also badly worn ones, using excessive quantities of oil,

may require a type with a lower heat value—i.e. a 'hotter' plug than the one recommended—to avoid fouling. Similarly a hot-running engine may overheat the plug and cause pre-ignition; abnormally severe duty and tuning for weaker mixture or higher power can produce this effect. In this instance a plug with a higher heat value — i.e. a 'colder' type — should be fitted to withstand the increased temperatures.

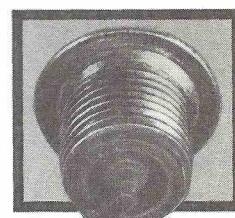
Too Hot

A plug which appears bleached, perhaps with a deposit like cigarette ash; this is too 'hot-running' for the performance of the engine and a cooler-running type should be substituted.



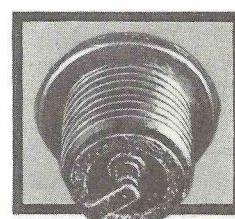
Normal

Light brown or grey coloured deposit on insulator.
Greyish deposit on body.



Too Cold

This plug has been running too 'cold' and has not reached the self-cleaning temperature. There is oil on the base of the insulator and electrodes. It should be replaced by a hotter running plug that will burn off deposits and remove the possibility of a short-circuit.



Gap Setting and Replacement

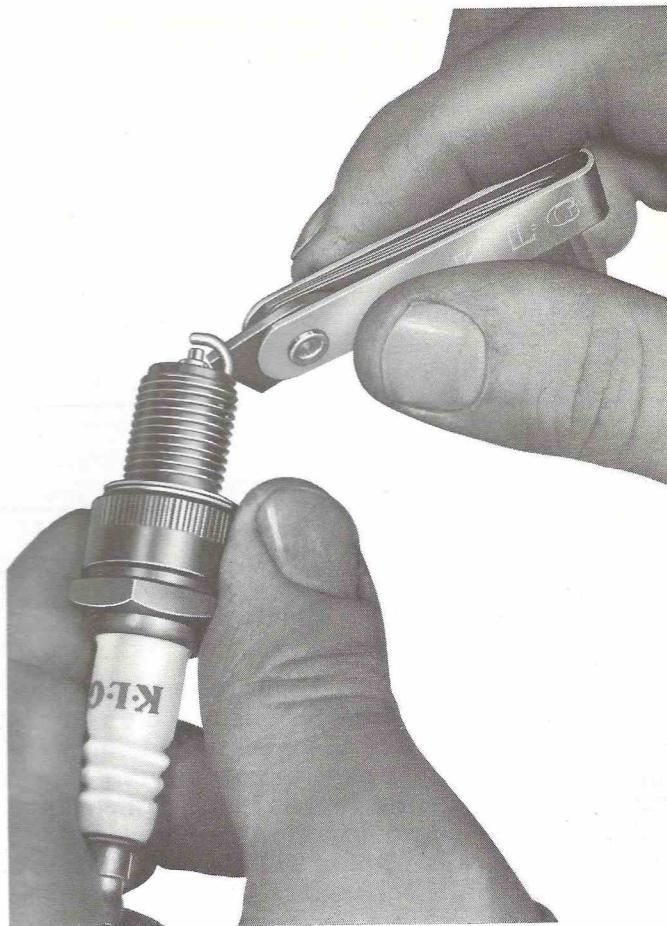
Incorrect setting of the gap between the electrodes can result in misfiring, loss of power, early fouling and poor idling. Plugs are normally supplied with a general setting which will not necessarily be correct for all engines. Electrode gaps should therefore be correctly set to the gap recommended by the engine manufacturer before initial installation, by bending the earth electrode only. The method of carrying out this setting is shown in the illustration on the right.

Electrical erosion of the electrodes gradually increases the gaps in service, and every spark contributes to this. The plugs should therefore be removed periodically and the gaps checked and reset as necessary.

Electrode erosion can be compensated for by resetting of the gaps only a limited number of times.

As the clean edges of the electrodes are eroded away a higher voltage is required to provide a satisfactory spark and the plug becomes progressively less efficient.

Plugs should be replaced after approximately 12,000 miles if full efficiency is to be maintained.



Installation

1. Make quite sure before you fit plugs that they are the correct type for the engine as quoted in the K.L.G. recommendation lists, or as determined by procedure described under "Choosing the right plug" (page 3) if abnormal conditions apply.

2. K.L.G. plugs are normally supplied with spark-gaps between the central and earth electrodes set at .025"-.028" (.65-.70 mm), with the following exceptions:—

	Inches	Millimetres
220 heat value	.015-.018	.40-.45
FS types	.028-.032	.70-.80
10/12 mm types	.019-.022	.50-.56

A slightly wider gap is permissible where a sports or other high-output coil is used. Where the engine manufacturers recommend a different gap from the K.L.G. setting, it is important that the appropriate adjustment be made before fitting.

When adjusting the gap, never move or lever on the centre firing point, but move only the side, or earth electrodes.

To ensure maximum efficiency and long life, care should be taken to see that the gap setting is maintained within the prescribed limits.

3. See that each plug is fitted with its external seating-washer, and that the body threads are quite clean.

4. Tighten each plug firmly, but do not over-tighten. All that is required is a gas-tight joint. If you use the strength that you can comfortably exert with your hands and wrists only, using a normal spanner and/or tommy bar, nothing more is needed. Over-tightening will cause damage. Where a torque-spanner is available, the tightening figures given below should not be exceeded.

TIGHTENING TORQUE

Thread Size	lb./ft. (m./kg.)
10 mm / 12 mm	10 (1.4)
14 mm	14 (1.9)
18 mm	25 (3.5)
18 mm Taper Seat	17 (2.4)

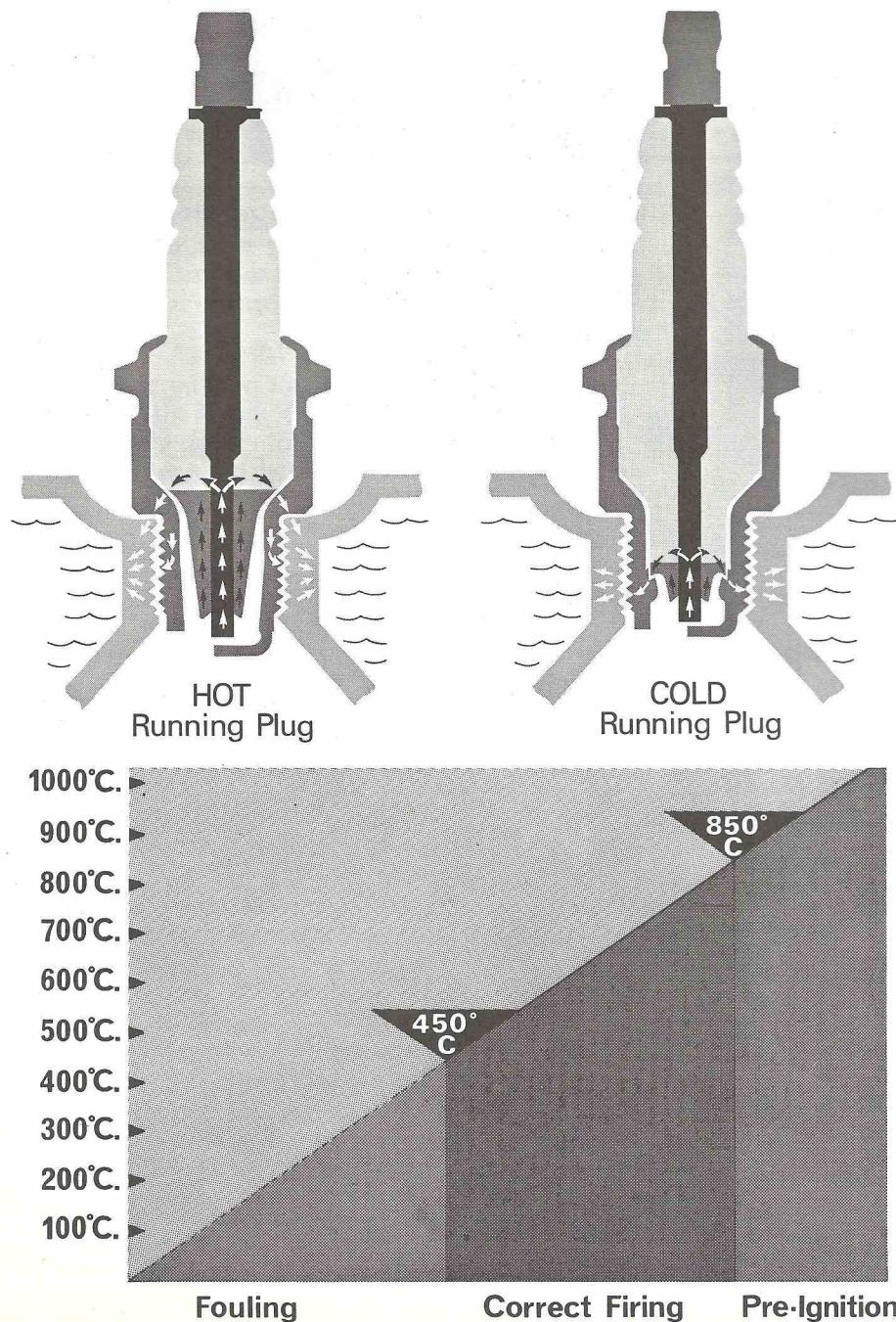
Heat Range

The design of a spark plug is complicated by the wide variation in operating conditions in different engines. A plug may be subjected at times to deposits of oil and carbon, and at other times to extreme heat. Under these conditions, the nose of the insulator must be sufficiently hot to burn off the oil and carbon fouling, but not so hot as to cause self-ignition.

Self-ignition can occur at or about the same time as the spark, in which case it is called auto-ignition; if it occurs earlier than the spark it is called pre-ignition. Continued running after switching off is called after-firing or running-on. Any of these forms of self-ignition can, however, be caused by hot spots other than plugs. This can easily be checked by temporarily fitting a very cold-running plug; if the cold running plug ends the trouble it is obviously caused by the

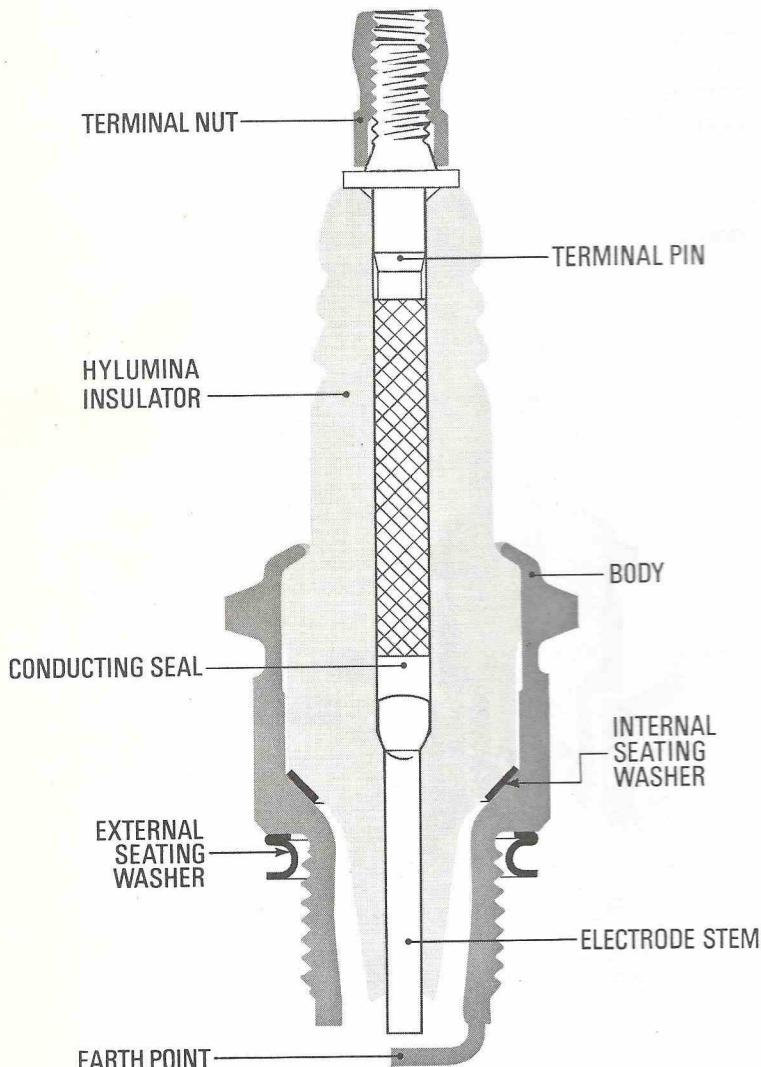
plugs and a different grade is required; if self-ignition still occurs, the cause will be found elsewhere.

Of the many features of design that control insulator temperature, the most important is the insulator nose length. The drawings below show the difference between 'hot' and 'cold' plugs. A cold running plug (below right) has a short insulator nose, permitting a faster dissipation of heat. Thus in a high compression, hot running engine the plug can operate within its correct temperature range, and self-ignition due to overheating is avoided. A hot running plug (below left) has a long insulator nose, providing a long path for the dissipation of heat. This means that the plug nose is maintained at a temperature high enough to burn off deposits of oil and carbon.



Trouble - Recognition and Cure

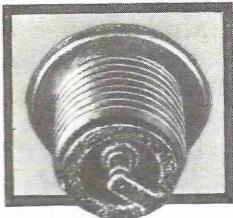
To save space under "Cause" and "Cure" it is assumed that the plugs are of the type recommended for the engine unless otherwise stated, and that all other aspects of the ignition system, such as coil, condenser, contact breakers, insulation of H.T. leads, etc., have been checked and proved satisfactory.



Fault

Oiled Insulator.

Wet oil – possibly black – covers the insulator and may have bridged the gap.



Sooted Insulator.

The insulator nose, and mouth of the body, are covered with soft, black carbon – similar to lamp-black.

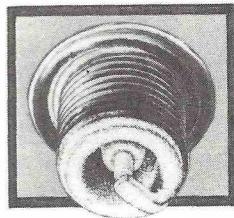


Dry Fouled Insulator.

The insulator nose, electrodes and mouth of the body are dirty and to some extent encrusted.

Overheated Insulator.

The insulator nose is clean and dry, with a bleached white look possibly stained with coloured "blisters". The mouth of the plug body is dry and grey, streaked with a yellowish tinge. The barrel may be "blued" by heat.



Top of Insulator Broken.

Difficult Starting.

Misfiring:

(a) At low speeds.

(b) At high speeds.

CORONA DISCHARGE AND FLASHOVER

Corona Discharge: This is a blue glow which appears around the plug insulator. It is more obvious in plugs that employ alumina based insulators and is caused by an intense electric field. This discharge has no effect on ignition performance and should not be confused with flashover. Flashover is generally caused by grit and moisture on the plug insulator.

Cause

Cure

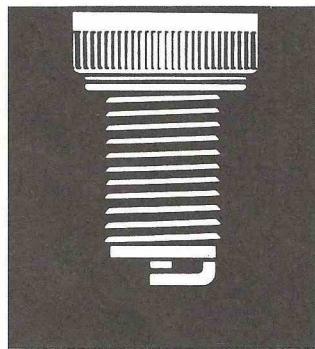
Certain: Oil is passing the pistons and rings and being thrown on the plug. Probable: Cylinder bores, pistons and rings are worn to a degree that calls for action.	A re-bore and new pistons and rings are needed. As an interim measure, plugs with lower heat rating than that recommended can be fitted (e.g., F20 instead of F50).
Probable: Too much oil in petrol/oil mixtures in 2-stroke petrol systems.	Reduce oil/petrol mixture to correct proportions.
Possible: In some engines, over-filling the sump with oil can produce the same effect.	If the dip-stick shows oil above the "full" mark, drain some oil from the sump.
Possible: Plug of much too high a heat value fitted.	Fit correct heat value plug.
Certain: The trouble is due to over-rich mixture. Probable: The choke is sticking and does not fully open when released on the dashboard.	Adjustment of choke mechanism.
Probable: The choke is being used for too long after engine has warmed up.	Close choke as soon as engine will run without it.
Probable: The slow running adjustment of the carburettor needs attention.	Adjustment of slow-running system.
Possible: The carburettor is flooding or maintaining too high a level in the float chamber.	Adjustment or renewal of float mechanism.
Possible: Plug of too high a heat value fitted.	Fit correct heat value plug.
Certain: Accumulation of products of combustion on insulation, due to too long an interval between cleaning.	Clean, adjust and refit plugs.
Probable: (All plugs over-heating). Weak mixture, caused by restriction of fuel supply.	Check over fuel supply from tank to engine. Attention to fuel pump, possible leaky joints in pipeline, and possibly choked jet in carburettor.
Probable: (One plug over-heating). Weak mixture, caused by: (1) leak in induction manifold gasket. (2) leaking cylinder head gasket. (3) sticking valve or tappets out of adjustment.	Fit new gasket. Fit new gasket. Valves must be freed and/or tappets adjusted.
Possible: (All plugs over-heating). Weak mixture caused by too small a main jet in carburettor.	Fit correct jet.
Possible: (All plugs over-heating). It is possible that a motor-cycle or car has been fitted by a previous owner with special high compression pistons and/or high compression head. This makes the recommended type of plug no longer suitable for the engine.	Fit new plugs with a higher heat rating (e.g., FE70 instead of FE50).
Possible: Plug of too low a heat value fitted.	Fit correct heat value plug.
Possible: Ignition badly out of adjustment which will show itself in engine performance.	Reset ignition timing.
Certain: Insulator has received a knock, possibly through the spanner slipping in fitting to, or removing from the engine.	A new plug of the correct type.
Certain: (Assuming battery, ignition and fuel systems O.K.). Gaps too wide and/or insulation fouled due, probably, to too long a period since last service.	Clean plug(s). Reset gap(s).
Certain: (Assuming carburettor correctly set). Gaps too narrow.	Clean plug(s). Reset gap(s).
Possible: Gaps too wide.	Clean plug(s). Reset gap(s).
Possible: Plugs over-heating.	See against "Overheated Insulator".

Projecting Nose Plugs

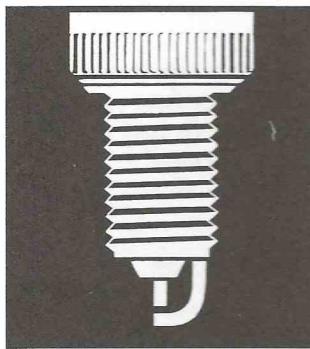
Modern driving conditions often result in cars capable of high performance running at low speed. This allows combustion deposits to build up on the spark plug insulators because of the lower engine temperatures and, when the high performance can be used, cause the engine to misfire.

Projecting nose plugs are designed so that the insulator tip, or 'Nose', is projected beyond the base of the plug body. The firing point of the plug is then penetrating deep in the mixture and subsequent flame in the combustion chamber. This promotes better combustion and more even firing under light loads.

A typical projecting nose plug is illustrated here. At wide-throttle openings the incoming charge cools the projecting insulator nose more effectively than with plugs of conventional design. These plugs should only be used in engines for which they are specifically recommended as the position of the inlet valve relative to the plug controls the effectiveness of the cooling, and the engine must accommodate the extra projection without danger of contact with piston or valves.



Normal Type



Extended Nose Type

Sports Plugs

When the power of an engine is increased by tuning, it will require a colder running plug due to the increase in combustion temperature. For most normal conversions FE125P should be satisfactory. The application of colder types will depend on additional tuning and driving conditions.

Sports Plug Cross Reference

Thread dia. and reach	K.L.G. Champion Lodge
	FE125P N64Y, N6Y 2HLNY
14 mm	FE135P N63Y 3HLNY
$\frac{3}{4}$ " (19 mm)	FE145P N62Y 4HLNY
	FE155P N60Y 5HLNY

The following notes are intended for guidance to application according to the 'Stage' of tuning employed:

Tune	Compression Ratio	Recommended Plug
Stage 1	9:1	FE65P
Stage 2	9.5 to 10	FE125P
Stage 3	10 and higher	FE135P FE155P/FE145P depending on racing conditions

For racing (production car events, etc.) FE155P or FE145P are recommended: FE155P being the most likely choice due to the wide operating range.

N.B.—These notes are based on experience with B.M.C. "A" Series engines. Application in ALL engines depends mainly on compression ratio and power output achieved according to the state of tune, and essentially on experience under competitive conditions.

Projecting Nose Plugs

Thread		Heat Value	K.L.G.	APPROXIMATE EQUIVALENT HEAT RANGE			
Size	Reach			Champion	A.C.	Autolite	Lodge
14MM	$\frac{1}{2}$ "	HOT	F55P	UL12Y, L92Y, L95Y	43FS	AE52	CNY
		HOT	F65P	L87Y		AE32	HN
		COLD	F85P	L82Y	42FS	AE22	2HN
	$\frac{3}{4}$ "	HOT	FE45P	N14Y		AG52	BLNY
			FE55P	UN12Y, N11Y	44XLS	AG42	CLNY
			FE65P	N9Y, N10Y		AG32	HLNY
			FE125P	N64Y, N6Y	42XLS	AG22	2HLNY
		COLD	FE135P	N63Y			3HLNY
			FE145P	N62Y			4HLNY
			FE155P	N60Y			5HLNY

Please note: For complete Cross Reference chart See Page 2.

Heater Plugs (for diesel engines)

Cold Starting

Diesel engines differ from petrol engines in not requiring spark ignition. Because of the very high compression ratios used, the air in the combustion chamber reaches a sufficiently high temperature to ignite the fuel.

Some types of diesel engine start readily from cold but in other cases it is necessary to pre-heat the air drawn into the cylinders before starting. In such cases K.L.G. heater plugs are used and are switched on for a short period immediately prior to and during starting. The K.L.G. heater plug functions by passing a current, the value of which varies with the plug type, through a coil of wire of the necessary resistance value, to obtain red heat. The time for which the heater plug is switched on is determined by the engine manufacturer and will vary between engine types.

K.L.G. heater plugs are made both in the single and double pole variety, i.e., for earth return or twin wire systems. For multi-cylinder engines it is usual to employ double pole plugs wired in series so that the total current drain on the battery is not excessive.

They consist of a heating element mounted within a plug body and are fitted either to the cylinder head or the induction manifold. When fitted directly into the cylinder head there is usually one heater plug for each cylinder whereas only one heater plug is commonly used when fitted in the manifold.

Unlike sparking plugs, K.L.G. heater plugs do not require cleaning but it is advisable to check the terminals for tightness at regular intervals and to make sure that wiring, where exposed, is not in contact with the engine or chassis.

These heater plugs are of extremely robust construction and if not misused have a very long life. It is important not to operate the heater plugs once the engine has been started as overheating and damage to the plugs will result.

K.L.G. Ballast Resistors

The shortest possible heavy leads are used from the plugs to the battery to minimise as far as possible the voltage drop that takes place throughout the circuit. A small drop is unavoidable and heater plugs are designed to work at specified voltages at their terminals which allow for the drop. If the combined terminal voltage of the plug due to the number of cylinders is less than the optimum, a ballast resistor of suitable rating is connected between the plugs and the battery. A ballast resistor is also used in the circuit sometimes in conjunction with a cut-out switch, so that when the starter motor is brought into operation, the ballast resistor is automatically cut-out. This prevents a voltage drop and thus a heat drop in the plug elements during the actual starting operation.

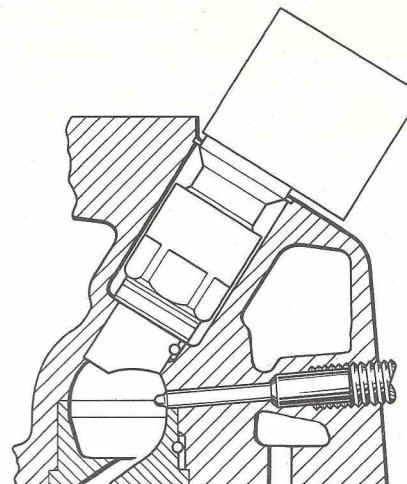
K.L.G. Sheathed Element Heater Plugs

These provide an extra advantage over the open coil type heater plugs. The heated element is insulated from and enclosed within an 'Inconel' sheath which protects it from combustion gases and mechanical stresses resulting from engine vibration, assuring an even longer service life. The single pencil type sheathed element of these plugs requires a smaller clearance hole in the combustion chamber, allowing better cooling conditions and avoiding the loss of compression associated with the larger access holes required by conventional heater plugs.

K.L.G. Heater Plug	Voltage	Description
GF210T	1.7 volts	Open coil, double pole, combustion chamber fitting
GS103L	12 volts	Sheathed element, single pole, combustion chamber fitting
GS104L	9 volts	Sheathed element, single pole, combustion chamber fitting.

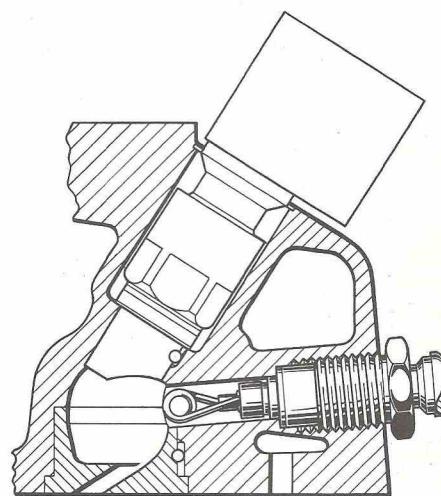
K.L.G. Ballast Resistors Code BRQ3

*B.M.C. 950 c.c. engines using GS103L replace with GS104L and Ballast Resistor BRQ3. (may require extra switch)

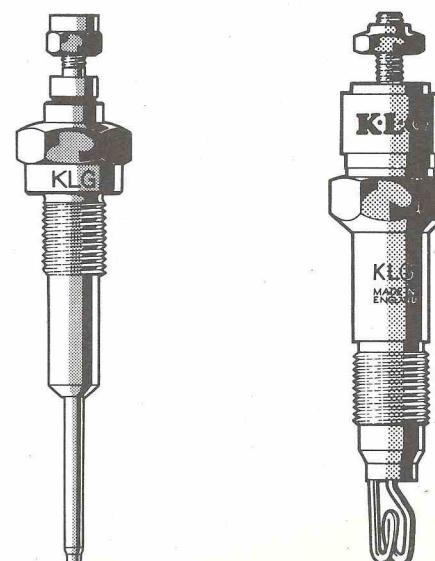


Typical arrangement using the sheathed element heater plug.

Note the potential increase in the cooling volume, plus the much reduced access hole, giving less compression ratio loss.



Typical arrangement showing the conventional coil type heater plug.
Note the large clearance around the coils.



sheathed element type

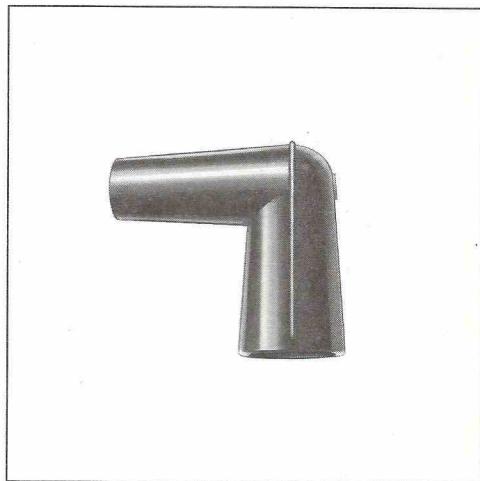
double pole open coil type

Heater Plug Recommendations

Make and Model	Year	Heater Plug	Make and Model	Year	Heater Plug
AUSTIN with B.M.C. 1.5 litre Diesel Engine A.60 Countryman Standard and Deluxe .. May 1963 on GS103L			MORRIS with B.M.C. 1.5 litre Diesel Engine Oxford Traveller Series VI May 1963 on GS103L		
10/12 cwt. Van .. Sept. 1960 on GS103L			J.4 10/12 cwt. Van .. Sept. 1960 on GS103L		
A.152 16/18 cwt. .. Nov. 1961 on GS103L			J.2 16/18 cwt. .. Nov. 1961 on GS103L		
B.M.C. *Mini Tractor 950 c.c. .. From Chassis No. 9T2412 GS104L			ROVER Landrover Diesel models		GF210T
*B.M.C. 950 c.c. engines using GS103L replace with GS104L and Ballast Resistor BRQ3. (May require extra switch).					
COMMER with Standard OE.138 Diesel Engine BFD.2011 1 ton F.C. Van 1960 on GS103L			SCAMMELL with Standard OE.160 Diesel Engine Townsmen 3 ton .. Sept. 1964 on GS103L		
BFD.3023 1½ ton F.C. .. Nov. 1960 on GS103L					
BD.3024 1½ ton Superpoise Nov. 1960 on GS103L					
KAD.3023 1½ ton Walk-Thru .. Oct. 1961 on GS103L			SCAMMELL with Standard 23CV Diesel Engine Scarab 3/4 ton .. 1962 on GF210T		
KAD.4023 and 4035 2 ton Walk-Thru .. Oct. 1961 on GS103L					
KARRIER with Standard OE.138 Diesel Engine BFD.2011 1 ton F.C. Van Nov. 1960 on GS103L			STANDARD 1 ton Van and Pickup .. Feb. 1963- Aug. 1963 GS103L		
FD Bantam 2 ton .. 1956 on GS103L			OE.138 Engine .. GS103L		
FD Bantam 2/3 ton .. Aug. 1957- Feb. 1964 GS103L			OE.160 Engine .. GS103L		
FAD Bantam 3 ton .. Sept. 1963 on GS103L			23C and 23CV Engines .. GF210T		
LEYLAND with Standard OE.138 Diesel Engine 20 cwt. Van and Pickup .. Sept. 1963 on GS103L			Engine Application List		
2 ton Van and Pickup F.C. Sept. 1962 on GS103L			ENGINE		
MASSEY FERGUSON with Standard 23C Diesel Engine FE.35 Tractor .. GF210T			B.M.C. 1.5 litre Diesel Engine .. GS103L		
			B.M.C. 950 c.c. Diesel Engine .. GF104L		
			Landrover Diesel Engines Standard 23C and 23CV .. GF210T		
			Standard OE138 and OE160 .. GS103L		

K.L.G. Suppressed Plug Cover (code P.S.)

This right-angled plug cover complies with G.P.O. regulations covering the suppression of ignition interference. Made in one piece it is extremely easy to fit to existing H.T. leads and completely covers the top insulation of the plug. This protection from water, dirt or oil accumulation prevents shorting which would otherwise occur. It will also clip on to any sparking plug fitted with a standard terminal.

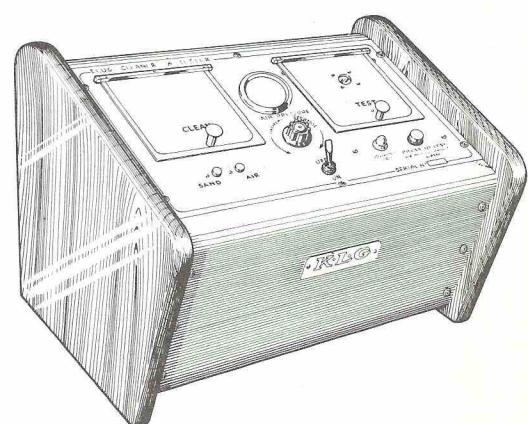


Mark 4 Spark Plug Cleaner and Tester

Both functionally efficient and attractive in appearance, the Spark Plug Cleaner and Tester Mk. 4 is designed to effect rapid removal of all fouling deposits from the firing end of any make of spark plug, and subsequently to test the plug effectively prior to its being refitted in an engine.

Encased in a compact cabinet of easily cleaned plastic covered metal with polished wooden end pieces, the equipment comprises a well proven sand blast cleaner with a testing machine which gives a clear visual indication as to the state of the plug.

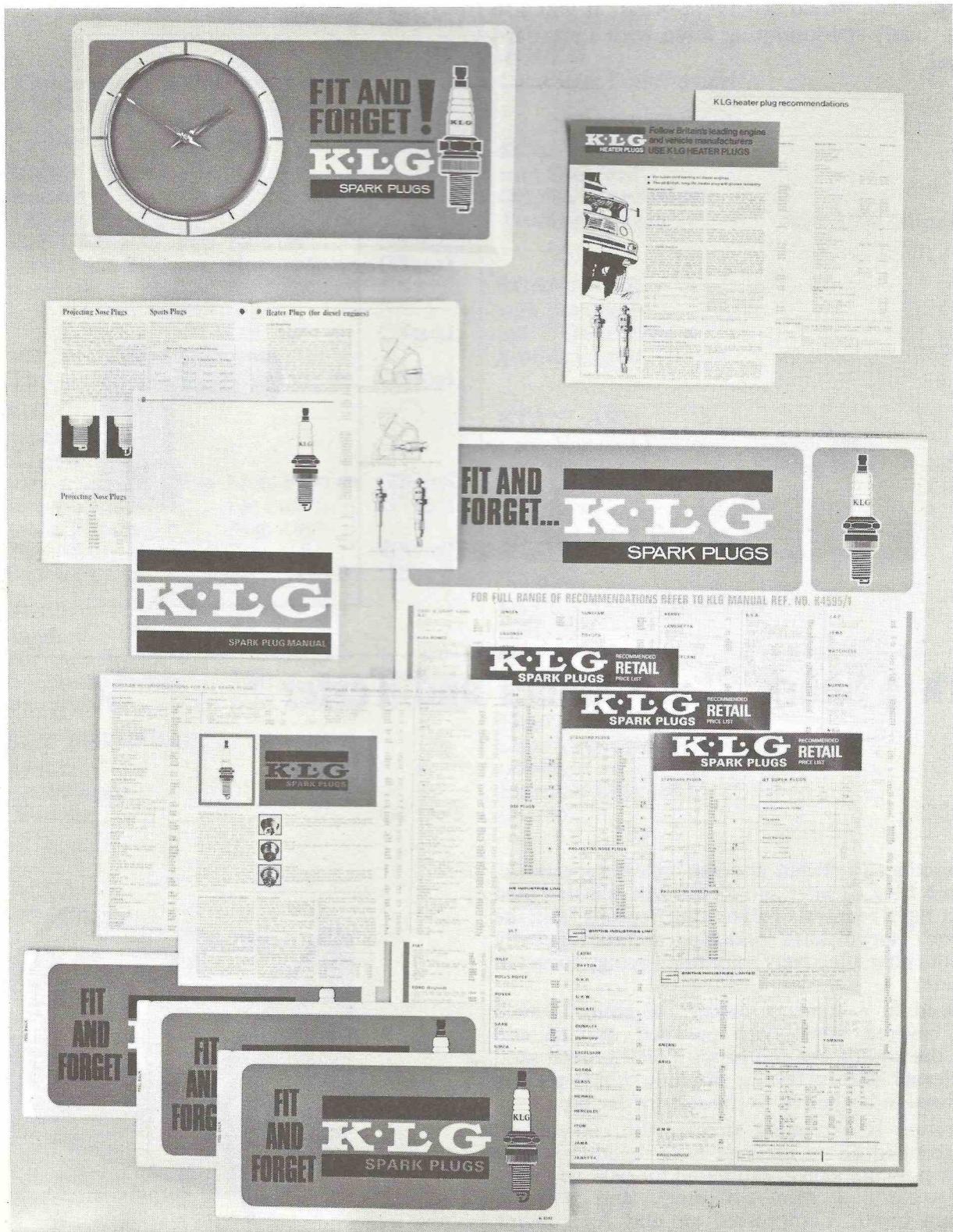
Operation is extremely simple; the controls all being grouped on an inclined fascia together with a large air pressure gauge, calibrated in spark gap sizes (0.015"-0.040"/ 0.4 mm.-1.0 mm), and a neon insulation tester. Compressed air and A.C. mains supply connections are at the rear of the unit.



K.L.G. Promotional Material

1. **Display Clock**—Special promotional item—trade price 55/0d including purchase tax plus a covering order for 1 gross of K.L.G. Spark Plugs.
2. **Wall Chart**—Recommendations for cars, light vans, scooters, mopeds and motor cycles.
3. **Heater Plug Leaflet**—Recommendations for commercial vehicles and technical information.
4. **Price Lists.**
5. **Window Bill.**
6. **Hand-out Leaflet.**
7. **Popular Recommendation List**—For cars.

All the material detailed below (with the exception of the display clock) is obtainable from—
Smiths Industries Limited, Motor Accessory Division Advertising Department, 391, Edgware Road, LONDON, N.W.2



EUROPEAN CARS

MAKE AND MODEL

ABARTH

1000TC, 850 twin 8:1 c.r.	..	F75	—	.025
2200 ..	..	F80	—	.025
695 SS ..	..	F65P	—	.025
2400, Coupé ..	..	FE65P	—	.025
595, 595SS, 695 ..	..	F65P	—	.025
850 OT ..	..	FE75	—	.025
1000 OTS, OTR, OT ..	..	FE125P	—	.025
124/1300 ..	..	FE125P	—	.025

A.C.

Ace, Aceca: A.C. engines ..	F75	—	.020
Ace, Aceca, Greyhound: Bristol engines ..	T90	—	.020
Ace, Aceca: Ford engines ..	FE70	—	.020
Cobra ..	MT55P	—	.035
Cobra 289, 427, 428 ..	MT65P	—	.035

ALFA-ROMEO

Guilia Spider, Guilia T1, T1 Super	FE125P	—	.015
Guilia Sprint GT, Guilia 1600 T1, Guilia Super	FE80	—	.025
Guilietta T1, Guilietta Spider ..	FE80	—	.025	
Guilietta Sprint Berlina ..	FE125P	—	.025	
Guilietta Sprint Veloce ..	FE125P	—	.025	
Guilietta Sprint Speciale ..	FE125P	—	.025	
Guilietta Spider Veloce ..	FE80	—	.025	
1300, 1900 Super Saloon ..	FE75	—	.025	
1900 T1 Super, 1900C Super Sprint ..	FE75	—	.025	
2000 Sprint, 2000 Spider ..	FE80	—	.025	
2600 Sprint, 2600 Berlina ..	FE125P	—	.025	
2600 Berlina OS1, 2600 SZ ..	FE125P	—	.025	
1300 GT Junior ..	FE125P	—	.025	
1700 Berlina, Coupé GT, Veloce & Spider ..	FE125P	—	.025	

ALVIS

TE 21 ..	..	FE75	—	.025
1960-63 TD 21 ..	..	FE70	—	.025
1959 TD 21 $\frac{1}{2}$ " reach ..	..	F50	—	.025
$\frac{3}{4}$ " reach ..	..	FE70	—	.025
TF21, Graber Super ..	..	FE65P	—	.025

ARMSTRONG SIDDELEY

Sapphire, Sapphire 236, 346 ..	FE50	—	.030
Sapphire 234, Star Sapphire ..	FE70	—	.030

ASTON MARTIN

DB6, DB5, Volante, DBS ..	FE65P	—	.025
DB4 ..	FE65P	—	.025
DB4 G.T., DB2-4 ..	T90	—	.025
DB Mk III, DB 2-4 Mk. III ..	F75	—	.025

AUSTIN

Mini 850 c.c., Mini Mk. II 850 c.c. & 1000 c.c. ..	FE70	FE55P	.025
Cooper, 110, 1100 Mk. II, 1800, A110 ..	FE70	FE55P	.025
Cooper "S", 1300, 3 Litre ..	FE65P	—	.025
A30, A35, A40, A40 Mk. II, A55, A60 ..	FE70	FE55P	.025
A90, A95, A99 ..	FE70	FE55P	.025
Metropolitan, A40 Somerset, A50, A70 ..	FE50	FE55P	.025
A125, A135 ..	FE50	FE55P	.025
1800 (with Emission Control Valve) ..	FE65P	—	.025

AUSTIN HEALEY

100, 100M, 100/six, 3000 ..	FE70	FE55P	.025
3000 Mk. III ..	FE70	FE55P	.025
1275 c.c. Sprite, Sprite ..	FE55P	—	.025
Sprite 1275 c.c. (with Emission Control Valve) ..	FE65P	—	.025

MAKE AND MODEL

AUTO UNION D.K.W.

Junior F.11, F.12 ..	..	M60	—	.025
Audi ..	..	FE220	—	.025
Audi 73PS, 70, 80, Super 90 ..	..	FE125P	—	.025

BENTLEY

1946-66 ..	..	FE50	FE55P	.025
T Series ..	..	FE45P	—	.025

BERKELEY

Anzani Engines ..	..	F75	—	.020
Excelsior Engines ..	..	FE70	—	.020
Ford Engine ..	..	FE70	—	.025
Royal Enfield Engine ..	..	FE70	—	.025

B.M.W.

700, 1500, 1600, 1800, 2000, 2000C ..	..	FE65P	—	.025
1800 T1, 2000 CS, 1600 T1, 1600 GT ..	..	FE125P	—	.025
1600-2, 2002 ..	..	FE65P	—	.025
600 c.c. LS Luxus ..	..	FE80	FE65P	.028
90PS ..	..	F75	—	.030
1962-66 V8 ..	..	FE75	—	.035
502, 502 S, 503, 505, 507 ..	..	F75	—	.025
$\frac{1}{2}$ " Reach ..	..	FE75	—	.025
502, 502 S, 503, 505, 507 ..	..	FE75	—	.035
$\frac{3}{4}$ " Reach ..	..	FE80	—	.025
40PS ..	..	FE80	—	.025

BOND

250 c.c. 4T Twin ..	..	F80	—	.020
Equipe GT ..	..	F65P	—	.025
GT4S 1300 c.c. 875, Equipe 2 ..	..	FE65P	—	.025
Litre GT ..	..	FE65P	—	.025

BORGWARD

Big Six, 1961-62 ..	..	F75	—	.028
Isabella 75 (TS) 1956-62 ..	..	F80	—	.028
Isabella 60, 1954-62, Hansa 2400, 1949-56 ..	..	F75	—	.028
Hansa 2400, 1957-62 ..	..	F80	—	.028

BRISTOL

409, 407, 408, 410	FS55P	—	.035
1946-61 all models	T90	—	.020

CITROEN

2CV and all Models 1956 on	F65P	—	.025
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D.A.F.

44, 33, 55, 55 Coupé	F65P	—	.035
Daffodil & Combi	F65P	—	.035
Daffodil De Luxe S	F125P	—	.035

DAIMLER (England)

1956-67, all models ..	..	FE50	FE55P	.025
Sovereign ..	..	FE55P	—	.025
Majestic Major, 2·5 V8 ..	..	FE50	—	.025

FACEL VEGA

Facel III ..	..	F80	—	.025
Facel II ..	..	FS50	—	.025
Facel 6 ..	..	FE55P	—	.025
Excellence HK 500 ..	..	FS75	—	.035
Facelia 1·6 ..	..	FE75	—	.030

FAIRTHORPE

Atom ..	..	F75	—	.020
Atomota ..	..	F80	—	.020
Atom Major, Electrina ..	..	FE70	—	.025
Electron ..	..	FE80	—	.025
Electron Minor 948 c.c. ..	..	FE70	—	.025
Electron Minor 997 c.c. ..	..	FE70	—	.025
Electron Minor 1200 c.c. ..	..	F55P	—	.025
Zeta Standard ..	..	FE50	—	.032
Zeta Tuned ..	..	FE70	—	.025
"EM" Three ..	..	F65P	—	.025
Rockette, TX1 ..	..	FE65P	—	.025

EUROPEAN CARS

MAKE AND MODEL		GAP inch	MAKE AND MODEL		GAP inch		
FERRARI			HILLMAN				
250 GT	*FE75	—	Imp, Super Imp, Imp Sport,				
275 GTB, 275 GTC, 275 GT	FE125P	—	Imp Californian	FE65P	— .025		
Spyder	FE125P	—	Hunter, Husky 875 c.c.	FE65P	— .025		
500 Superfast	FE125P	—	Minx, Super Minx (1500 c.c. & 1600 c.c. Engine) 1959–66	FE70	— .025		
330 GTS, 330 GTC, 330 GT, 365 GT 2 +2	FE125P	—	Minx 1498 c.c. & 1725 c.c. 1967 on	FE65P	— .025		
*Continuous high speed FE80					All 1725 c.c. Engines	FE65P	— .025
					Husky Series I, II, III O.H.V.	*FE70	— .025
					<i>*In case of fouling fit FE50</i>		
FIAT			HINO				
500, 500D, 500F, 600, 600D, 1100D, 1100 T.V., 1100 Berlina, 1200, 1400, 1900, 1100F	F70	F55P	Contessa	FE70	— .025		
124 Sport, 124 Spider	FE125P	—					
Dino Spider & Coupé	FE155P	—					
Giardiniera	F80	—					
850, 850 Idromatic	FE75	FE55P					
850 Coupé and Spider	FE80	—					
1300	FE65P	—					
1300 Berlina	FE65P	—					
1500	FE65P	—					
1500L, 1500 Berlina	FE65P	—					
1600S, 1800B	FE65P	—					
2300 Berlina, 2300S, 124, 125	FE65P	—					
1800, 2100	F75	—					
1100 R	F55P	—					
FORD (England)			HONDA				
Anglia 105E, 106E, Super Anglia 123E, 124E	FE65P	—	N360	FE80	— .025		
Cortina 113E, 114E, 118E, 119E, Capri, Capri GT	FE65P	—	N600	FE75	— .025		
Classic, Cortina Super, Corsair Cortina GT, Lotus Cortina, Corsair V4 and GT	FE65P	—					
Consul, Zephyr, Zodiac 1951–62	FE125P	—					
Zephyr & Zodiac Mk. IV ("V" engines), Executive	FE50	—					
Zephyr 4, Zephyr 6, and Zodiac Mk. III	FE55P	—					
Popular	F50	—					
Anglia S.V. models	F50	—					
Escort 1968, Escort GT, Escort Twin Cam	FE125P	—					
Capri Series 1969	FE125P	—					
FORD (Germany)			HUMBER				
1962–67 All Models Low Compression	F65P	—	Imperial, Sceptre (Series II) 1725 c.c.	FE65P	— .025		
1962–67 All Models High Compression	F85P	—	Hawk (Mk. IV, V, VI, Series I, Ia, II, III, IV)	FE55P	— .030		
1968 All Models Low Compression	FE65P	—	Snipe, Super Snipe (Mk. I, II, III)	F50	— .030		
1968 All Models High Compression	FE125P	—	Snipe (Series V), Super Snipe (Series I, II, III, IV, V)	FE65P	— .025		
			Super Snipe (Mk. IV, IVa, IVb)	FE50	— .025		
			Sceptre (Series I) 1600 c.c.	FE70	— .025		
FRISKY			INNOCENTI				
Villiers Engine	F80	—	IM3, J4	FE70	FE55P .025		
Excelsior Engine	FE70	—	A40S, Spider "S"	FE70	FE55P .025		
GLAS			ISETTA				
T250, TS250, T300, T400, TS400 600, K600, 700, K700	M60	—	300	F80	— .025		
S1004, TS1004, 1204, TS1204, S1204, 3000 V8	F75	—	600	FE80	— .028		
1300 GT, 1303, 1304 TS, 1700 GT, 1700 TS	FE65P	—					
HEINKEL			ISUZU				
14MM Models	F50	—	Hillman, Bellel, 1500, Bellett 1500, 2000	FE70	— .030		
18MM Models	M60	—					
JAGUAR			JAGUAR				
"E" Type 4·2, "E" Type 2 +2, Mk. 10 4·2, 420, 420G	FE55P	—	"E" Type 4·2, "E" Type 2 +2, Mk. 10 4·2, 420, 420G	FE55P	— .025		
"E" Type 3·8, Mk. 10 3·8, 340, 3·4 Mk. II, 3·8 Mk. II	FE55P	—	"E" Type 3·8, Mk. 10 3·8, 340, 3·4 Mk. II, 3·8 Mk. II	FE55P	— .025		
"S" Type, XJ6 4·2	FE55P	—	"S" Type, XJ6 4·2	FE55P	— .025		
2·4 Mk. I 7:1 c.r. 1956–66	F75	—	2·4 Mk. I 7:1 c.r. 1956–66	F75	— .025		
2·4 Mk. I & II, 240, 8:1 c.r.	FE70	—	2·4 Mk. I & II, 240, 8:1 c.r.	FE70	— .025		
3·4 Mk. I 1957–66 7:1 c.r.	F75	—	3·4 Mk. I 1957–66 7:1 c.r.	F75	— .025		
XK150, Mk. IX, Mk. VIII 7:1 c.r. XK150, Mk. IX, Mk. VIII 8:1 & 9:1 c.r.	F75	—	XK150, Mk. IX, Mk. VIII 7:1 c.r. XK150, Mk. IX, Mk. VIII 8:1 & 9:1 c.r.	F75	— .025		
XK140 7:1 c.r.	F75	—	XK140 7:1 c.r.	F75	— .025		
XK140 8:1 c.r.	FE50	—	XK140 8:1 c.r.	FE50	— .025		
XK140 8:1 "C" Type Head	FE70	—	XK140 8:1 "C" Type Head	FE70	— .025		
XK140 9:1 c.r. "D" Type Head	FE80	—	XK140 9:1 c.r. "D" Type Head	FE80	— .025		
XJ6 2·8	FE65P	—	XJ6 2·8	FE65P	— .025		
JENSEN			JENSEN				
CV8 Mk. III	FS55P	—	CV8 Mk. III	FS55P	— .025		
541, 541S, 541R Interceptor 4-litre	FE50	—	541, 541S, 541R Interceptor 4-litre	FE50	— .025		
Interceptor & F.F. Saloon 6·8 litre	FS55P	—	Interceptor & F.F. Saloon 6·8 litre	FS55P	— .035		
V8 4475 c.c.	FE65P	—	V8 4475 c.c.	FE65P	— .035		

EUROPEAN CARS

MAKE AND MODEL				GAP inch
LAGONDA				
Rapide 1962-66	—	..	FE75	.025
LANCIA				
Fulvia Berlina, Fulvia Coupé,				
SL Fulvia	FE75	—	.025	
Fulvia 2C	FE75	—	.025	
Flavia 1	FE70	—	.025	
Flavia 1500	FE75	FE65P	.025	
Flavia 1800	FE220	—	.025	
Flaminia 2800	FE65P	—	.025	
Flaminia Super Sport Zagato ..	FE220	—	.025	
Flaminia 7·8/1 c.r.	FE70	—	.025	
9·1 c.r.	FE75	—	.025	
Appia II, Appia III, Appia Sports,				
Aurelia 2nd Series Spyder ..	FE70	—	.025	
Appia I, Aurelia B10, B12, B21,				
Ardea 4th Series	FE50	—	.025	
Aurelia B20, B22, B24, GT				
2500	FE70	—	.025	
LOTUS				
Elan S2, Elan	FE80	FE65P	.025	
Super Seven 1500	FE75	FE55P	.025	
Lotus Cortina, Elan + 2 .. .	FE125P	—	.025	
Seven Two A, Europa	FE75	—	.025	
Seven Eleven Sports	F50	—	.025	
Eleven Club, Elite	FE80	—	.025	
Elan 1500, 1600, SE	FE125P	—	.025	
MASERATI				
5000 GT, 2 + 2 Sebring 3500,				
Sebring 3500 GTIS	FE125P	—	.025	
2 Posti, Spider, Quattro Porte,				
Mistrala, Mexico & Ghibli ..	FE125P	—	.025	
MERCEDES-BENZ				
Short Reach 180A, 180B, 180C,				
190, 190B, 190C	F70	—	.030	
Short Reach 219, 220, 220S,				
300, 300B, 300C	F70	—	.030	
Short Reach 300S, 319B .. .	F70	—	.030	
Long Reach 190B, 190C,				
190SL, 220, 220SB	FE125P	—	.028	
Long Reach 220B, 230, 230S,				
220SE, 220SEB	FE125P	—	.028	
Long Reach 230SL, 250S,				
300SEB, 300SL, 300SLRO ..	FE125P	—	.028	
200/8, 220/8, 230/S, 250/8,				
280S/8	FE125P	—	.028	
M.G.				
M.G.B., M.G.B. G.T., M.G.C.,				
1300	FE65P	—	.025	
1100, Midget, 1100 Mk. II. ..	FE70	FE55P	.025	
MGA 1600, MGA 1500	FE70	FE55P	.025	
Magnette Mk. III, IV, ZB ..	FE70	FE55P	.025	
Magnette ZA	FE50	FE55P	.025	
1954-55 TF Midget	FE70	FE55P	.025	
1275 c.c. Midget	FE55P	—	.025	
MORGAN				
4/4 Series V	FE65P	—	.025	
4/4 Series III and IV	FE70	FE65P	.025	
4/4 Aquaplane Head	FE70	—	.025	
Triumph TR engines	F65P	—	.025	
Plus 4, Plus 4 plus, Plus 4 Super				
Sports	F65P	—	.025	
MORRIS				
Mini 850 c.c., 1100, 1800,				
Cooper, 1100 Mk. II	FE70	FE55P	.025	
Cooper "S", 1300, 1800S ..	FE65P	—	.025	

MAKE AND MODEL				GAP inch
MORRIS (<i>continued</i>)				
Minor 1000, Minor Series II ..	FE70	FE55P	.025	
Oxford Series V and VI, Oxford & Cowley Series 1500, 1959-66	FE70	FE55P	.025	
Oxford, Cowley 1500 to 1958, Isis	FE50	FE55P	.025	
Oxford Series MO (s.v.) Six	F50	—	.020	
Series MS	F50	—	.020	
Minor Series MM (s.v.) ..	F50	—	.025	
Mini Mk. II 850 & 1000 c.c. ..	FE70	FE55P	.025	
MOSKVITCH				
400-420, 423, 1.1 litre to 1965	F50	—	.025	
400-420, 423, 1.1 litre 1966-on	F70	—	.025	
NISSAN				
Cedric	FE70	FE55P	—	
N.S.U.				
1000L, 1000S, Prinz 110, Prinz,				
Prinz Sport	FE65P	—	.025	
Prinz 1000, 1200	FE65P	—	.025	
110SC, 1000TT, 1000TS, 1200C, 1200TT	FE125P	—	.025	
OPEL				
All 4 Cyl. & 6 Cyl. Models 1957-67, Commodore	F65P	—	.028	
Kadette, Olympia, Rekord 1968 on (Std Models)	F65P	—	.028	
Kadette, Olympia, Rekord S, SR, HL Models 1968 on	F85P	—	.028	
Kadette, Rallye, Commodore GS, Kapitan 2.8 HL	F85P	—	.028	
Admiral 2.8	F85P	—	.028	
Kapitan 2.8S, Admiral 2.8S ..	F65P	—	.028	
Kapitan 4.6, Admiral 4.6 ..	FS75	—	.028	
Diplomat	FS75	—	.020	
PANHARD				
1956-60 All Models	FE75	—	.025	
24CT, 24C, GL, PL17, Super Lux Relmax	FE65P	—	.025	
PEEL				
50 c.c. Three Wheeler	F75	—	.025	
PEUGEOT				
403 Models	F65P	—	.025	
404 Carburettor Short Reach ..	F75	—	.025	
404 Carburettor Long Reach ..	FE65P	—	.025	
404 Injection $\frac{1}{2}$ " Reach ..	F75	—	.025	
404 Injection $\frac{3}{4}$ " Reach ..	FE125P	—	.025	
204, 204B	FE65P	—	.025	
POBEDA				
M20	M30	—	.025	
PORSCHE				
356A, 356B, 356C, 356, 1100, 1300, 1500	F75	—	.020	
1600, Super 75, Super 90, Super 95, 912	F85P	—	.020	
911, 911L, 911T5	FE135P	—	.020	
911S	FE145P	—	.020	
POWER DRIVE	.. .	F50	—	.025
PRINCE				
Skyline 1500, Gloria 6	FE70	FE55P	—	

EUROPEAN CARS

MAKE AND MODEL

RELIANT

			GAP
			inch
Scimitar G.T.	..	FE65P	—
Rebel, Sabre 6	..	FE70	—
Sabre G.T.	..	FE75	—
Regal 3/25	..	FE70	—
Regal	..	F50	—
Sabre 4	..	FE50	—
Scimitar 3 Litre, Anadol	..	FE125P	—
			.025
			.025
			.025
			.025
			.025
			.032
			.025

RENAULT

Dauphine Gordini R3, R4, R4L	F70	F65P	—	.025
Caravelle, Odine, Floride	F70	F65P	—	.025
R8, R8 Major, R10, Floride "S"	F70	F65P	—	.025
R16	..	FE70	—	.025
Dauphine 1090	..	F50	—	.025
Dauphine 1093	..	F70	—	.025

RILEY

Elf, Kestrel 1100, Kestrel 1100				
Mk. II	..	FE70	FE55P	—
1·5, 4-68, 4-72, Pathfinder	..	FE70	FE55P	—
2-6	..	FE70	FE55P	—
1300, 1300 Mk. II	..	FE65P	—	.025

ROLLS-ROYCE

Phantom V, Silver Cloud Series				
II, III	..	FE45P	—	.025
Silver Shadow	..	FE45P	—	.025
Silver Cloud, Silver Wraith	..	FE55P	—	.025

ROVER

2000	..	FE75	FE65P	—	.030
2000 TC	..	FE125P	—	.025	
110	..	FE75	—	.030	
95, 100, 105R, 105S, Land-Rover 6-cyl.	..	FE70	—	.030	
60, 75, 90, Land-Rover 4-cyl.	..	FE50	—	.030	
80	..	FE50	—	.025	
3·5 Litre V8, Three Thousand Five	..	F65P	—	.025	
3 Litre Mk. I, II, III	..	FE70	—	.030	

SAAB

Monte Carlo 850, Sonnet II				
Normal	..	M60	—	.025
V4 Short Reach	..	F85P	—	.025
V4 Long Reach	..	FE65P	—	.025
93, 93B, 95, 96 to 1964	..	M60	—	.025
750 GT (Normal)	..	M60	—	.025
92, 92B	..	F50	—	.025

SCOOTACAR

	F80	—	.020
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SIMCA

900, 1000L, 1000LS, 1100L, 1100LS	..	FE65P	—	.025
1500, 1500 Auto, 1501	..	FE65P	—	.025
1000 (Auto), 1000GL, 1000GLS, 1100GL	..	FE125P	—	.025
1100GLS, 1200S	..	FE125P	—	.025
1301, 1301GL, 1301LS	..	F65P	—	.025
Montlhery, Monaco, Speciale	F70	—	.025	
Etoile, Elysee, 1300, 1300GL	F70	—	.025	
"Flash" Special Engines	F70	—	.025	
"Rush" Super Engines 62CV	F70	—	.025	
"Rush" Super "M" Engines 70CV	..	F70	—	.025

SINGER

Vogue 1600	..	FE70	FE55P	—	.025
Chamois, Chamois Sport, Vogue 1725, Gazelle 1968 1496 c.c.	..	FE65P	—	.025	

MAKE AND MODEL

SINGER (continued)

Gazelle Mk. III, IIIA, IIIB, IIIC, V	..	FE70	—	.025
Gazelle Mk. I & II	..	FE50	—	.025
1500 Hunter Single Carburettor	FE50	—	.025	
1500 Hunter Twin Carburettor	FE70	—	.025	
Gazelle VI, Gazelle 1725 c.c.	FE65P	—	.015	

*In case of fouling fit FE50

SKODA

Octavia 440, 445, 450, 1101, 1102, 1200, 1201	..	F50	—	.028
Felicia, Combi, 1202	..	F75	—	.025
1202 STW	..	F70	—	.025
1000MB, 1100MB	..	F65P	—	.025

STANDARD

Ensign, Vanguard 1959, Vignale IV	..	F75	—	.025
Vanguard Vignale VI 1960 on	FE70	—	.025	
8 & 10 h.p. 1953 on	FE70	—	.025	

STEYR PUCH

500, 650 TR2	..	F75	—	.028
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SUBARU

Custom & Sedan	..	F50	—	.025
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SUNBEAM

Alpine 1725, Rapier 1725	..	FE65P	—	.025
Tiger V8 (260)	..	MT55P	—	.035
Alpine 1600	..	F70	—	.025
Rapier 1600	..	F70	—	.025
Imp, Hunter, Hunter II	..	FE65P	—	.025
Stiletto, Rapier H120	..	FE65P	—	.025

TATRA

Tatrapian	..	F50	—	.025
P50	..	M60	—	.025

TOYOTA

Corona, Corolla	..	FE70	—	.025
Crown 4 cyl. & 6 cyl.	..	FE70	—	.025
Crown Eight	..	FE55P	—	.025
Landcruiser	..	FS55P	—	.025
Publica UP10	..	F75	—	.025
Tiara RT20, RT30	..	FE70	—	.025

TRIUMPH

1300, 2000, GT6, 13/60, 1300 T.C.	..	FE65P	—	.025
Herald 1200, 1250	..	F65P	—	.025
Herald 1959-62	..	FE75	—	.025
TR4, TR4A, Spitfire, TRS, TR3	F65P	—	.025	
Vitesse, TR5, Spitfire IV Mk. III	FE65P	—	.025	
Sedan, Estate Wagon (2088 c.c.)	..	F50	—	.025
Cadet	..	FE75	—	.025
Renown, Roadster	..	F50	—	.025
Mayflower	..	FE50	—	.030
GT6 Mk. II	..	FE55P	—	.025
T2500 Fuel Injection	..	FE65P	—	.025

TROJAN

Bubble Car	..	F75	—	.025
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TURNER

1500 c.c.	..	FE75	—	.025
950 Sports	..	FE70	—	.025
Coventry Climax Sports	..	FE80	—	.025

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MAKE AND MODEL

GAP
inch**T.V.R.**

Mk. III 1622 c.c.	FE70	—	.025
Mk. III 1798 c.c.	FE65P	—	.025
Mk. IV 1800S	FE65P	—	.025
Tuscan V8	..	..	MT55P	—	.035
Tuscan Special	..	..	MT65P	—	.035

VANDEN PLAS

4 litre ..	..	..	FE50	—	.025
Princess "R" ..	..	..	FE70	FE55P	.025
1100, 1100 Mk. II ..	..	..	FE70	FE55P	.025
1300 ..	..	..	FE65P	—	.025

VAUXHALL

Viva, Viva SL, VX4/90, Velox 3294 c.c.	..	..	FE65P	—	.030
Cresta & Viscount 3294 c.c. ..	..	..	FE65P	—	.030
Viva 90, Viva SL90, Ventora ..	..	..	FE125P	—	.030
Victor 1962-64, Victor 101 1965-67 ..	..	..	FS75	—	.030
Victor 1968 FD Models ..	..	..	FT85P	—	.030
1961 Velox & Cresta 2·2 litre ..	..	..	FS50	—	.030
1961 Victor ..	..	..	FS50	—	.030
1961-62 Velox & Cresta 2·6 Litre	FE50	—	.030
Brabham Viva	FE75	—	.030
Victor 3300	FE125P	—	.030

VOLGA

All models	F50	—	.025
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MAKE AND MODEL

GAP
inch**VOLKSWAGEN**

All models excluding 411	F70	F55P	.028
411 1969	FE50	FE55P	.028

VOLVO

B18B 9·5:1 c.r. ..	..	F65P	—	.025
B18B 10·1 c.r. ..	..	F85P	—	.025
P1800S, 144S, 123 G.T. ..	..	F85P	—	.025
P1800, 122S/B18D, 142, 144 121, 121/B18A, 121/B18D ..	..	F65P	—	.025
131, 132S, 221, 222, 223	F65P	—	.025
B14A, B16B, PV544	FS75	—	.025
B16A, PV444C	FS50	—	.025

WARTBURG

.. .. M60 ..	—	.025
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WOLSELEY

Hornet, 1100, 1100 Mk. II	FE70	FE55P	.025
16/60, 18/85	FE70	FE55P	.025
6/99, 6/110	FE70	FE55P	.025
6/90 ..	..	FE50	—	.025
15/60, 1500 1959 on ..	..	FE70	—	.025
15/50, 1500 to 1958, 4/44	FE50	—	.025
4/50, 6/80	F50	—	.020
1300	FE65P	—	.025

ZUNDAPP

Janus, 248 c.c.	F75 ..	—	.029
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AMERICAN CARS

MAKE AND MODEL	GAP inch	MAKE AND MODEL	GAP inch
BUICK		DODGE	
1962-67 all V6 engines, 340 cu. in.	.035	1967 225, 170 cu. in.	.035
1965-67 300 cu. in.	.035	1967-68 318 cu. in.	.035
1964 300 cu. in. al. head	.035	1967 363 cu. in.	.035
1966 V8, 400, 401 cu. in.	.035	1966 273 cu. in. 2bbl	.035
1963-66 425 cu. in.	.035	1966 273 cu. in. 4bbl	.035
1958-65 V8 364 & 401 cu. in.	.033	1966 313, 318, 361, 383 cu. in.	.035
1961-63 al. V8	.033	1966-68 426 cu. in.	.035
		1966-68 440 cu. in.	.035
		1965-66 V8 413 cu. in. Std.	.035
		Hi-perf.	.035
		1964-68 273 cu. in. Std.	.035
		Hi-perf.	.035
		1960-68 6-cyl. o.h.v.	.035
		1960-68 383 cu. in. 4bbl	.035
		2bbl	.035
		Std.	.035
		1963-65 426 cu. in.	.035
		1959 all excl. D.500	.035
		D.500	.035
		1958 $\frac{3}{4}$ " reach	.035
		1957-58 $\frac{3}{4}$ " reach	.035
		1955-56 all models	.035
CADILLAC		EDSEL	
1957-67 all models	.035	1959-60 V8 332, 352, 361 cu. in.	.035
1949-56 all models	.035	1959-60 V8 282 cu. in.	.035
CHECKER		1959-60 6-cyl.	.035
Marathon	.035	1958 V8	.035
Aerobus	.035	FALCON	
CHEVROLET (including CHEVELLE and CHEVY II)		1965-68 V8 289 cu. in.	.035
6-cyl. engines:—		1963-68 6-cyl. 200 & 240 cu. in.	.035
1963-68 $\frac{3}{4}$ " reach	.035	1960-68 6-cyl. 144 & 170 cu. in.	.035
1959-62	.035	1964 V8 270 cu. in.	.035
1951-58	.035	FORD	
V-8 engines:—		6-cyl. engines:—	
1955-67 265 & 283 cu. in.	.035	1965-68 240 cu. in.	.035
1962-68 327 cu. in. 250 & 275 h.p.	.035	1960-68 200 223 cu. in. Std.	.035
1966-68 396 & 427 cu. in. Std.	.035	Hi-perf.	.035
1961-65 409 cu. in. $\frac{3}{4}$ " reach	.035	1962-65 170 cu. in.	.035
1959-61 348 cu. in. $\frac{3}{4}$ " reach (early 1958		1955-59 223 cu. in.	.035
models only)	.035	V-8 engines:—	
$\frac{3}{4}$ " reach (do not install in early 1958		1958-67 221, 260, 332, 352, 361, 390, 428	
engines)..	.035	Cu. in. Std.	.035
V8 307 cu. in.	.035	Hi-perf.	.035
CHRYSLER		1964-67 289 cu. in.	.035
1966-68 440 cu. in.	.035	1962-68 406 & 427 cu. in., 1968 302	.035
1966-68 V8 383 cu. in. 4bbl	.035	cu. in.	.035
1959-68 383 cu. in. 2bbl	.035	1958-62 272 & 292 cu. in.	.035
1959-66 413 cu. in.	.035	1955-59 all models	.035
1961-64 361 cu. in.	.025	IMPERIAL	
1958 C300	.035	1966-68 440 cu. in.	.035
1957-58 Saratoga & Windsor	.035	1959-65	.035
1956-58 Imperial & New Yorker	.035	1956-58	.035
1955-57 C300	.035	1967 all models	.035
1955-56 Windsor	.035	JEEP	
1955 Imperial & New Yorker	.035	1966-68 V6 Engine	.035
1954 V8..	.035	1965-68 V8 232 cu. in.	.035
COMET		1963-68 Standard Engine	.035
1966-68 V8 390 cu. in., 4bbl 350 h.p.	.030	1963-66 Tornado Engine	.035
1964-68 6-cyl. 200 cu. in.	.035	LINCOLN	
1964-67 V8 289 cu. in., 427 cu. in.	.035	1966-68 462 cu. in.	.035
1964 V8 270 cu. in.	.035	1958-65	.035
1960-65 6-cyl. 144 & 170 cu. in.	.035	1955-57	.035
1968 V8 302 cu. in.	.035	MERCURY	
CONTINENTAL		1958-67 V8 352, 382, 390, 410, 428, 430	
1966-68	.035	Std. 2bbl & 4bbl	.035
1958-65	.035	Hi-perf.	.035
1955-57	.035	1963-65 V8 406, 427 cu. in.	.035
CORVETTE		1961-65 6-cyl. 223-240 cu. in.	.035
1962-67 327 cu. in. Std.	.035	1955-62 V8 292, 312, 268 cu. in.	.035
300-375 h.p. Hi-perf.	.035	1954 o.h.v.	.030
1961 283 cu. in.	.035		
1959, 60, 62, 283 cu. in.	.035		
DESOTO			
1960-61 V8 excl. RAM & Hi-perf.	.035		
RAM & Hi-perf...	.035		
1959 V8 excl. Adventurer	.035		
Adventurer	.035		
1957-58 V8	.035		
1956 V8..	.035		
1946-54 6-cyl.	.035		

AMERICAN CARS

MAKE AND MODEL
**GAP
inch**
METEOR

1962-63 6-cyl.	..	..	MT45P	.035
V8	..	..	MT55P	.035

METROPOLITAN

1960-63	..	..	FE70	.025
1959	..	..	FE50	.025

MONARCH

1959-61	..	..	MT55P	.025
1955-57	..	..	MT45P	.035
1954 o.h.v.	..	..	F50	.030

MUSTANG

1967 V8 390 cu. in.	..	..	MT65P	.035
1964-68 V8 289 cu. in.	..	..	MT65P	.035
1964-65 V8 260 cu. in.	..	..	MT55P	.035
1965-68 6-cyl. 200 cu. in.	..	..	MT55P	.035
1964 6-cyl. 170 cu. in.	..	..	MT45P	.035
1968 V8 302, 427 cu. in.	..	..	MT65P	.035

OLDSMOBILE

1966-68 250 cu. in. 6-cyl.	..	..	FE55P	.035
1964-65 V6	..	..	FS55P	.030
1959-68 V8 330, 371, 394, 400, 425 cu. in.	..	..	FE55P	.035
1961-63 V8 Al.	..	..	FS55P	.030
1957-58 V8	..	..	FS55P	.030
1949-56	..	..	FS45P	.030

PLYMOUTH

1967 225, 318 cu. in.	..	..	FE45P	.035
1967 440 cu. in.	..	..	FS55P	.035
1967 426 cu. in.	..	..	FE65P	.035
1966 426 cu. in.	..	..	FE65P	.035
1966 440 cu. in.	..	..	FS55P	.035
1965-68 V8 273 cu. in. Std.	..	..	FE45P	.035
Hi-perf.	..	..	FE65P	.035
1961 383 cu. in. 4bbl	..	..	FS55P	.035
2bbl	..	..	FS45P	.035
1960-66 313, 318, 361 cu. in.	..	..	FS45P	.035
1963-65 426 cu. in.	..	..	FS55P	.035
1960-68 6-cyl. o.h.v.	..	..	FE45P	.035
1957-59 6-cyl. s.v.	..	..	FS75	.035
1955-57 V8	..	..	FS45P	.035
1958-59 excl. Commando	..	..	FS45P	.035
Commando	..	..	FS55P	.035

PONTIAC

1963-66 V8 421 cu. in.	..	..	FS55P	.035
1959-66 V8 389 cu. in.	..	..	FS55P	.035
1955-66 V8 265, 283, 327 cu. in.	..	..	FS55P	.035
250-275 h.p., 1968 V8 350 cu. in.	..	..	FS55P	.035
1963-66 6-cyl., 1968 250 cu. in. 6-cyl.	..	..	FE55P	.035
1959-62 6-cyl.	..	..	FS55P	.035
1967-68 V8 400, 428 cu. in.	..	..	FS55P	.035

RAMBLER

1966 V8 290 cu. in.	..	..	FE45P	.035
1965-68 6-cyl. 199 cu. in.	..	..	FE45P	.035
1964-68 6-cyl. 232 cu. in.	..	..	FE45P	.035
1960-65 196 cu. in.	..	..	F50	.035
1960-65 s.v.	..	..	F50	.035
1960-64 6-cyl. 196 cu. in.	..	..	F50	.035
1960-65 V8	..	..	F50	.035
1956-59 all	..	..	F50	.035
1954-55 all	..	..	FS50	.030
1967 V8 290, 343 cu. in.	..	..	FE55P	.035

STUDEBAKER

1965-67 6-cyl. 194 & 230 cu. in.	..	..	FE55P	.035
1961-64 6-cyl.	..	..	F50	.035
1958-60 6-cyl.	..	..	FS75	.030
1965 V8	..	..	FS55P	.035

MAKE AND MODEL
STUDEBAKER (continued)

1958-64 V8 259 cu. in.	..	..	F50	.035
1965-67 V8 283 cu. in.	..	..	FS55P	.035
1963-64 V8 289 cu. in. Std. engine	..	..	F50	.035
Jet Thrust	..	..	FS55P	.030
1964 V8 304 cu. in.	..	..	FS55P	.030
1958-62 V8 289 cu. in.	..	..	F50	.035
1951-57 V8 excl. Golden Hawk	..	..	F50	.035

TEMPEST

1966 230 cu. in. 6-cyl. o.h.c.	..	..	FS55P	.030
1964-65 6-cyl.	..	..	FE55P	.035
1963-66 V8 389, 326 & 421 cu. in.	..	..	FS55P	.035
1962 V8 al.	..	..	FS55P	.032
1961 V8 al.	..	..	FS45P	.032
1961-63 4-cyl.	..	..	FS55P	.035
1967 V8 400, 428 cu. in.	..	..	FS55P	.035

THUNDERBIRD

1967-68 V8 390 cu. in.	..	..	MT65P	.035
1966-68 428 cu. in., 429 cu. in.	..	..	MT55P	.035
1958-60	..	..	MT55P	.035
1955-57	..	..	MT45P	.035
1961-66 V8 390 cu. in.	..	..	MT55P	.035

VALIANT & SIGNET

1963-66 6-cyl.	..	..	FE45P	.035
1966 V8 2bbl	..	..	FE45P	.035
4bbl	..	..	FE65P	.035
1960-65 V8	..	..	FE45P	.035
1967 170, 225, 273 cu. in. 2bbl	..	..	FE45P	.035
273 cu. in. 4bbl	..	..	FE65P	.035

COMMERCIAL VEHICLES

MAKE AND MODEL

ALBION

Models requiring 14 mm. plugs, normal (½" reach)	..	..	F50
Models requiring 14 mm. plugs, long (¾" reach)	..	..	FE50
Models requiring 18 mm. plugs	..	..	M50

AUSTIN

A.30 Van, Pickup, Countryman	..	..	FE70
A.40, A.50, Van, Pickup, Countryman	..	..	FE50
A.55 Van, 1958	..	..	FE50
A.55 Van, 101, 152 Series, 1959-on	..	..	FE70
A.70 Van, Pickup, Countryman, Gipsy	..	..	FE50
Champ 5-cwt.	..	..	FE50
Taxi—Petrol	..	..	FE50
1-ton, 30-cwt., 2-ton, 3-ton, 5-ton	..	..	FE50
½-ton Van, 10/12-cwt., J.4 Van, 1960-on	..	..	FE70

BEARDMORE

Taxi (Ford engine)	..	..	FE50
Taxi—Humber	..	..	FE50

BEDFORD

All 14 mm. models to 1960	..	..	FS50
2·6, 3·3-litre models, 1960-on	..	..	FE70
Beagle, 6-cwt., 8-cwt. Vans	..	..	FE70
1596 c.c., 3507 c.c., 4917 c.c.	..	..	FS75
1159 c.c.	..	..	FE125P

BORGWARD

B1250, B1500	..	..	F75
B511, B611	..	..	F70

CITROEN

HZ850, H1200, T23, T45, HY1500	..	..	F70
2CV, Berline 425, H1400	..	..	F75

COMMER

25 cwt. ½" Reach	..	..	F50
25 cwt. ¾" Reach	..	..	FE50
8 cwt. Van, Cob (s.v.)	..	..	F50
Express Delivery Van 1390 c.c.	..	..	FE55P
Cob	..	..	FE55P
2260 c.c., 2266 c.c., 2995 c.c.	..	..	FE55P
4140 c.c., 4250 c.c., 4750 c.c.	..	..	FE55P
1500 c.c., 1600 c.c.	..	..	FE70
Imp Van, 1725 c.c. models	FE65P

D.A.F.

A1100BA, A1300BA, A16BB, T13BA, T1300BA, G1300BA, B1300BA, B1600BB	F70
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DAIMLER (England)

DC27 Ambulance	FE50
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DAIMLER-BENZ

Models requiring 14 mm. plugs	F70
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DENNIS

F15, F24	FE70
F17, Fleet Special	FE50
Vendor Van	F50
Pax, s.v. models	M50
Other 4-cyl. s.v. engines	..	..	M50
Other 6-cyl. o.h.v. engines	..	..	M50
Dennis Fire Engine with Rolls-Royce B80 eng.	FE50
F15 Fire Pump	FE50

D.K.W.

All models	M60
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DODGE

203, 205, 223, 225, 264	FS50
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MAKE AND MODEL

FIAT

508M, 518C, 518L, 500C	FS50
100, 615 Campagnola	FS50
600, 600D, 1100, T600, T1000, T1300	F70

FORD and FORDSON

Thames 10/12, 15, 30-cwt., 2 & 3-ton (o.h.v.)	..	..	..	FE50
Thames 1½, 2, 3 & 4-ton (o.h.v.) Cost Cutter	..	..	..	FE50
Thames 5, 7/10-cwt. & 2-ton (s.v.)	..	..	..	F50
Thames 5 & 7-cwt. Vans (o.h.v.)	..	..	..	FE70
Thames Traders 4 & 6-cyl., o.h.v.	..	..	..	FE50
Thames V8 engines	..	..	..	M50
Transit	..	..	..	FE65P

FORD (Germany)

FK1000/1, 5 ..	..	..	..	..	F70
1952-63 Taunus 12M	..	..	..	..	F50
1957-63 Taunus 17M	..	..	..	..	F50
FK1250/1·5, 671	..	..	..	..	F50
1964-65 Taunus 17M	..	..	..	..	F75
1966 Transit 45, 60, 65PS	..	..	..	..	F55P

GOLIATH

Express 1100 ..	..	..	..	..	F75
GP700, GP700E, GM700E, GP900E, GM900E	..	..	..	..	M60
Goli, GM500L, GV800A, GV800S	..	..	..	..	M60
GD750—1950-55 ..	..	..	..	..	M60
1949 ..	..	..	..	..	F70

GUTBROD

Heck 504	F50
Heck 604, Atlas 800 and 1000	M60

GUY

1945-57, Otter, Vixen, Wolf	FE50
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JENSEN

Jen-Tug (Ford 10 h.p.)	F50
Jen-Tug (Austin A.40), 1500 c.c. to 1959	FE50
1500 c.c. 1959-on	FE70

KARRIER

CK3, 6-cyl. ..	..	..	..	..	FE55P
QXM and Loadmaster ..	..	..	..	..	FE75
Bantam models, 14 mm. long reach plug ..	..	..	..	..	FE50
Bantam models, 14 mm. normal reach plug ..	..	..	..	..	F50
Other models, 14 mm. normal reach plug ..	..	..	..	..	F50
Ambulance ..	..	..	..	..	FE50
All models, 18 mm. normal reach plug ..	..	..	..	..	M50
Road Sweeper Collector, 1950-56 ..	..	..	..	..	FE70
CK3 Municipal, 1946-51 ..	..	..	..	..	F50
Gamecock, 1952-62 (Mks. I & II) ..	..	..	..	..	FE70
Loadmaster Compressor Refuse Collector, 1954-61 ..	..	..	..	..	FE70
1954-61 ..	..	..	..	..	FE75
Gamecock WA, 1963 ..	..	..	..	..	M50

LAFFLY

BS, BSA, BSE (Hotchkiss 864 engine) ..	..	..	..	..	F50
BS, BSA, BSE (Hotchkiss 486 engine) ..	..	..	..	..	M50
BSS, BSSA, BSSR, BSSRA ..	..	..	..	..	M50
ACL5, ABL5, BS140 ..	..	..	..	..	M50
S15T, V15T, S20TL ..	..	..	..	..	M50

LANCIA

Beta, Appia, Ardea, Jolly ..	..	..	..	..	FE75
Esaro ..	..	..	..	..	F50
Penttiota, Eptaiota, Omicron, Triota and other models requiring 18 mm. plugs ..	..	..	..	..	M30
203, 205, 223, 225, 264 ..	..	..	..	..	FS50

LATIL

Gazogene models ..	..	..	..	..	M50
Other models requiring 18 mm. plugs ..	..	..	..	..	M50
Models requiring 14 mm. plugs ..	..	..	..	..	F50

COMMERCIAL VEHICLES

MAKE AND MODEL

LAUBER

Coach using Chevrolet engine FS50

LEYLAND

Comet, 14 mm. plug FE50
 Lion and Cub M50
 Lynx, cast-iron head M50
 Other models M50

LISTER AUTO TRUCK

... ... M30

LLOYD

1955-61 LT, LTK600 F75

MANDERBACH

$\frac{3}{4}$ -ton (Ford "Taunus" engine) F70

MAUDSLAY

Marathon, (Mk. II o.h.v. engine) F75

MEADOWS ENGINES

EXA, ECA M50
 EWB—14 mm. heads FE50
 18 mm. heads M60
 6PC, 630 M50
 4EL/AV F50

MORRIS

J2, J4, JB, Oxford Van, 1959-on FE70
 J2, $\frac{1}{2}$ -ton Van, 1956-58, LC5 FE50
 5-cwt. Van & Pickup (o.h.v.) 1954-57 FE70
 $\frac{1}{2}$ -ton Mini Van 850 c.c., Minor $\frac{1}{2}$ -ton Van 1000 c.c., Mini Moke, 6-cwt Van FE70
 2, 3 & 5-ton B.M.C. eng. 3995 c.c., 1955 FE50
 All models 1959-66, Minibus FE70
 Morris GPO $\frac{1}{2}$ -ton detector van FE70

OPEL

1955-65 Olympia F70
 Blitz 3-6L, 3.6L, 6-cyl., 3LA, S F75

PEUGEOT

1956-63 F70

PRAGA

LTM F50
 SND, RND, ND (Producer gas) M60
 Other models requiring 14 mm. plugs F20
 Other models requiring 18 mm. plugs M30

RELIANT

S.V. models F50
 O.H.V. models FE70

RENAULT

Fourgon 2102, 2104, 2106 F70 — F55P
 Estafette 2130 12 cwt, 2132 15 cwt, 2134 20 cwt. F70 — F55P

ROVER

See cars.

SCAMMELL

Scarab Mechanical Horse, 1932-57 (3 & 6-ton) M50
 Oilfields 4x2 models M50

SCANIA-VABIS

6 and 8-cyl. requiring 14 mm. plugs F50
 Other models requiring 18 mm. plugs M60

SIMCA

1954-63, 90K, 90R, AM-AN, AP F70

MAKE AND MODEL

SKODA

1957-60, 1201 F70
 1961-65 Combi F75

STANDARD

6-cwt. Van, Pickup & Utilecon FE70
 7-cwt. Van F75
 15x20-cwt. Vans F50
 Atlas, 10-cwt. Van & Pickup, 948 c.c. FE70
 Atlas Major, 1670 c.c. F50

TEMPO VIDAL

1959-on (B.M.C. Engine) FE70
 To 1959 (B.M.C. engine) FE50
 Matador 1400 F75
 A400, Matador (WV engine) F70

THORNYCROFT

Using ER4 engine (Nippy Star, Sturdy Star etc.) M30
 Other Nippy and Sturdy models M30

TRIUMPH

Courier F65P

VOLKSWAGEN

All models F70

VOLVO

B36AV FS50
 B18, B18A, B18D F70

SCOOTERS & MOPEDS

MAKE AND MODEL	
ACHILLES	
Lido	F70
ALCYON	
Models 20, 22 and 23Z	F70
125 c.c., Model 21, 175 c.c., Model 19 (using A.M.C. engines)	F75
250 c.c., o.h.v., A.M.C. engine	F80
Cyclomoteur using 98 c.c. V.A.P. engine	F50
Models using 175 c.c. Surcher engine	F80
S.V. models requiring 18 mm. plugs	M50
350 and 550 c.c.	F80
Velomoteurs 62 and 63	F50
ALMA	
125 and 175 c.c.	F50
ALPINO	
98 c.c. model	F75
Models 'F', 'T' and 'R', 48 c.c.	F75
Scooters, 75 and 125 c.c.	F75
75 and 200 c.c.	FE75
AMSTEL	F75
ANKER	
Ankermatic	F75
AVADA	F70
AVAROS	F70
BATAVUS	F70
BERINI	
M35	F80
M36	F80
M23	F50
M19, M21, M22	F70
M13, 32 c.c., 48 c.c.	F50
BIANCHI	
45 Aquilotto	F50
Falco	F75
78 c.c. Scooter, Berina 125 c.c. Scooter	F75
Orsetto, 50 c.c.	F80
BOND	
P1, P2, P3, P4 Scooter	F80
B.S.A.	
Beagle	T90
Sunbeam B1, 172 c.c.	F80
Sunbeam B2, 249 c.c., B3	F75
Dandy 70 c.c.	F75
CAPRI	
50, 70, 80, 98, 125	F75
CAPRIOL	
124	F75
Capriolo 75—Normal	F75
Sport	F80
Capriolo 'Centro-50'	F70
Capriolo	F80
CAPRONI	
Vizzola 'Cavilux', 'Cavimax'	F80
CECCATO	
48 Romoe, 75, 98	F70
CENTRO	F70
CIMATTI	F70
CYCLONETTE	F70
CYRUS	F70
DAYTON	
'Albatross' 224, 248 and 249 c.c.	F80
'Flamenco' 174 c.c.	F80
DELIUS	
YM100S-K Scooter	M60
Cityfix (Famo 98 M50 engine)	M50
Cityfix (Famo 98 engine)	M30
Elite and Standard (Lutz M58 engine)	F20
VM150	M50
DEM	F75
D.K.R.	
148	F70
173, 197	F80
Dove, Pegasus, Defiant, Manx, Capella	F75
D.K.W.	
Hobby 74 c.c., 50 c.c.	F75
DUCATI	
55E	F75
250 Daytona, 200 Super Sport, 200 Gran Turismo, 80 c.c., 48 c.c.	F80
DUCBOCK	F75
DUNKLEY	
Whippet, Sports, Popular, S65	F50
DURKOPP	
Diana, Diana Sports, Durkopp	F80
Dianette Moped	F75
EMPO	F70
EXCELSIOR	
98 c.c. (Villiers) Autobyk, Universal Skutobyle, and Consort	F75
98 c.c. (Excelsior) Autobyk and Minor	FE75
EYSINK	F70
FLANDRIA	
Majestic, King Sporta	F80
Vedette, Velocette	F50
F.N.	
T52, 49 c.c.	F75
125T, 50 Scooter	F75
FONGERS	F70
GAZELLE	F70
GERMAAN	F70
GILERA	
49 c.c., G50 Scooter	F75
GILLET	
Rene 100, 125 c.c.	F50

SCOOTERS & MOPEDS

MAKE AND MODEL

GLASS

Goggo 123 c.c. (Ilo MG 125V engine)	..	M60
Goggo 147 c.c. (Ilo MG 150V engine)	..	M60

HEINKEL

'Tourist' Scooter, 149 and 174 c.c.	..	F75
'Perle' 48 c.c. .	..	F80

HERCULES

Grey Wolf 49 c.c., Corvette	..	F75
Her-cu-motor Mk. I, II	..	F50

HERVO

..	..	F70
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HOFMANN

Vespa Scooter	..	F70
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HUSQVARNA

Novelette	..	F50
50 c.c. H.V.A.	..	F75

ITOM

Astor Competizione	..	F75
Scooter, Junior	..	F50
'Idial', 48 c.c., Astor, Astor Sport, Esperia	..	F50

JAWA

Robot 99 c.c., Ceseta 172 c.c.	..	F50
Model 550 49 c.c., O5 Manet	..	F75

JAWETTA

..	..	F75
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JUNCKER..	..	F70
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KERRY

Capitano 49 c.c.	..	F75
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LAMBRETTA

1946-47 Model A	..	F50
1948-51 Models B, C, LC	..	F75
1952-on Models D, FD, LD, E, LDA, LDB and		
Moped	..	F80
TV175, TV200	..	FE75
1959-on Li Models—Standard 150	..	FE75
Slimstyle 125, 150, 175, Pacemaker	..	FE75
G.T.200, Cento, J50, J125, L100	..	FE75

LAVERDA

200 c.c. o.h.v. twin	..	FE80
49, 60	..	F80
199 Twin	..	F100
75T, 100T	..	F80
75S, 100S	..	F100

LOCOMOTIEF

B10, B11, B12	..	F50
B8, B9	..	F70
Sachs motor	..	F70
Berini M23 motor	..	F50

MAGNEET

..	..	F70
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MAICO

Wiesel Moped	..	F75
Maicomobil, Maicoletta	..	F80

MANURHIN

Hobby 74 c.c.	..	F75
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MAKE AND MODEL

MARS

50 c.c. Sachs	F75
Stella 175	M60
98S, 98J (Famo 98 engine)	M30
98S, 98J (Famo 98 M50 engine) ..	..	..	..	M50

M.A.S.

175 Zenith, 125 Stella Alpina ..	..	..	F70
175 Sport ..	..	..	F80
125S ..	..	..	FE75

MI-VIAL

125T, N125, NA125, GSa125, GSr125 ..	..	..	F75
M5L125, 125S, 175L, 200, Motocarro ..	..	..	F80
150 ..	..	..	F50
175, S.30 Sport ..	..	..	F100

MONARK

M50, M55, M57 ..	..	..	..	FS20
M10, M20, M40, M41, M45, (JB), M56, M56F ..	..	..	..	F50
M24, M31, M32, M33, M34, M34F, M35, M36, M38, M60, M61, M62 ..	..	..	..	F75

MOTOBECANE

Mobylette, Moby Scooter 125 c.c., D45 Moby-matic, Standamatic, Luxamatic and all 49 c.c. models, 1.5 h.p., 2.5 h.p. ..	..	..	..	F75
Z22, Z23, Z46, Z56 ..	..	..	..	F75
L4C, 147 c.c. ..	..	..	..	FE70

M.V.

425 (13M) 4M Scooter ..	..	..	..	F75
Chicco 150 c.c. Scooter ..	..	..	..	FE70
Autobyk 14 mm. ..	..	..	..	F75

N.S.U.

Prima 150 c.c., 175 c.c. ..	..	..	..	F80
Quickly, Quick 50 ..	..	..	..	F75
Lambretta ..	..	..	..	F80

N.V.

5, 31 c.c. Autoped, Mopedscooter	F50
70 Hobby	F75
80 Progress	M60

PALOMA

49 c.c.—Minor, Dasi, Pal	F75
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PANTHER

Princess	F75
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PARILLA

125 c.c.	FE70
48 c.c.	F50
150 c.c.	FE80

PEUGEOT

Scooter S57C, 125 c.c.	F75
Bima, Leopard, 49 c.c.	F50

PHANOMEN

Bob, 100 c.c. Ahoi, 125 c.c.	M50
Model 71, 123 c.c.	M60
Model 72, 98 c.c.	M50
Model 78, 173 c.c.	F80

PONETTE

..	F50
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PUCH

Scooter and Moped	F75
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SCOOTERS & MOPEDS

MAKE AND MODEL

RALEIGH

Roma, Wisp	F75
Supermatic, Ultramatic	F75
Automatic Runabout	F75

R.A.P.

R.A.P.	F70
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REX

FM31, FM34, FM40, FM50, FM50L1, Luxus	F50
504, VII, Standard, Luxus VI, Luxus VIII, X, XX, 17	F75

RIEDEL

Imme R100	F70
Till, 150 c.c.	F70
Scooter, 150 c.c.	F75

RIXE

T98, T98-50, K98-50	M50
KP125, KT125, KP175, KT175	F75
KT250	M60
KT200—1952	F75
B250/2, Senator (Illo M2×125 engine)	F80

ROYAL NORD

ROYAL NORD	F70
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RUMI

Fo Michino	FE75
Scooters 'Scolattolo' & 'Ecureuil' 125 c.c.	FE75
Supersport 125 c.c.—(1 carburettor)	FE80
(2 carburettors)	FE100
175 Sport	FE100
200 Gran Turismo	FE80

SIMPLEX

11 & 12, M23	F50
S7, S8, S9, S14	F70

SOLEX

SOLEX	F20
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SPARTA

SPARTA	F70
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SUN

Geni	F75
Sunwasp	F80

SUNBEAM

B1, B2, B25	F75
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SUPERIA	F70
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SUZUKI

Suzy 50	FS100
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TERROT

Scooters VMS 2 and VMS 3, 125 c.c., VMS, 100 c.c.	F75
Cyclorette CY, 48 c.c.	F50
Motorette M344, M349, 100 c.c.	F70

TESTI	F70
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TORNAX

S60, K125, K125H, T175, V175, V250	F75
V200, E250, Z250	M60

TRIUMPH

Tigress TSI1, 175	F80
Tigress TW2, TW2S, 250 c.c.	FE75
Tina 100 c.c. short reach plug	F75
T10 Automatic	FE75

MAKE AND MODEL

T.W.N.

Fips	F50
Contessa & Tessy	F80

TOMOS

.	F70
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TYphoon

.	F70
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UNION

Sachs Engine	F70
Pluvier M23 motor	F50

V.A.P.

.	F50
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VELOCETTE

Viceroy	FE70
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VESPA

Grand Sports Models 1M, 2M, 3M, 4M, VS5, 1609S and Messerschmitt	FE70
90, 90SS	F80
Sportique	F75
All other 150 & 125 c.c. models	F75
98 c.c.	F50
180SS	FE80
Sprint, GL	F75 or F70

VICTORIA

M50, M51, Nicky, Scooterette, Vicky III and IV	F70
48 c.c., Peggy, Tory Avanti, Preciosa	F50
Vicky I and II, 38 c.c.	F75
V35 Bermeister, KR25	F70
KR26 Aero	F70
KR100, V99 BL Fix	F80
KR25HM, KR26N Aero-Sport	F75
KR125 Bi-Fix, KR21 Swing	F70

VINCENT

Firefly	F50
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YAMAHA

MJ2	F80
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ZUNDAPP

KS75	F100
Bella 150, Bella 200	F75
Falconette	F70

MOTOR CYCLES

MAKE AND MODEL

ADLER

M100, M125, M150, MB150, Junior	..	F80
M200, MB200, MB201, M2011, M250, MB250,		
Favorit	..	F80
MB250S	..	F220

A.M.C. ENGINES

..	..	FE70
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AERO CAPRONI

Capriolo 75 c.c.	..	F50
Capriolo 75 c.c. Sport	..	F80
Capriolo 150 c.c.	..	F75

ARMACCHI

175 c.c. Ala, Bianci, Ala Rossa Sport, Ala D'Or		
Chimera	..	FE75
250 c.c. Ala D'Or 4T	..	FE80
250 c.c. Ala Azzurra, Ala Verde, Chimera	..	FE75

AJAX

98 c.c. N.S.U. engine	..	M60
350 c.c. model 8	..	FE75
250 c.c. model 14	..	FE75
650 c.c. Twin model 31	..	FE75

A.J.S.

248 c.c. model 14, Tourist, 14 CSR	..	FE80
248 c.c. model 14SC, Scrambles	..	FE100
250 c.c. model 14	..	FE75
348 c.c. model 8, Light	..	FE80
347 c.c. models 16, Trials, 16 Sceptre	..	FE80
349 c.c. model 7R, Racing	..	on request
489 c.c. model 18	..	FE80
497 c.c. model 18SC, Scrambles	..	FE100
498 c.c. model 20	..	FE80
646 c.c. models 31, 31 DL De Luxe, 31 CSR	..	FE80
646 c.c. models 31 CS, Scrambles	..	FE100
350 c.c. models 16M, 16MS, to 1950	..	F75
350 c.c. models 16M, 16MS from 1951	..	FE75
350 c.c. Comp. models 16MC, 16MCS from 1949, 18 Statesman, 16 C, 33, Experts	..	FE75
350 c.c. 7R	..	on request
350 c.c. model 8	..	FE75
500 c.c. models 18, 18S to 1950	..	F75
500 c.c. models 18, 18S from 1951	..	FE75
500 c.c. Comp. models 18C, 18CS from 1949	..	FE75
500 c.c. Twin, model 20	..	FE80
592 c.c. model 30	..	FE80
650 c.c. Twin model 31, 31 Swift, 33 SCR	..	FE75
Other o.h.v. models, 14 mm. plug	..	F75
Other o.h.v. models, 18 mm. plug	..	M60
Other s.v. models, 14 mm. plug	..	F50

ALDBERT

160T, 175T	..	F70
160S	..	F80

ALLSTATE (SEARS)

810. 94150, 810. 94151 125 c.c.	..	F50
810. 94190, 810. 94141 125 c.c.	..	F50
810. 94160, 810. 94161 175 c.c.	..	F50
810. 94170, 810. 94171 175 c.c.	..	F50
810. 94180, 810. 94181 250 c.c.	..	F50
810. 94182, 810. 94220 250 c.c.	..	F50
810. 94200, 810. 94221 250 c.c.	..	F75
810. 9422 250 c.c.	..	F75
810. 8952, 810. 9409 250 c.c.	..	F50
810. 9439 250 c.c.	..	F50
810. 8951 250 c.c.	..	F80

AMBASSADOR

..	..	See Villiers
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A.M.C. (France)

125, 150, 175 o.h.v.	..	F75
150, 175, 250 c.c. Sport	..	F80

MAKE AND MODEL

ANZANI

242 c.c. Twin 2-stroke	..	..	F75
150 c.c. and 200 c.c.	..	..	F75
322 c.c. Twin 2-stroke	..	..	F75

ARIEL

Leader TS Twin Arrow	..	..	FE80
197 c.c. L.H. Colt	..	..	FE75
347 c.c. 'N.H.' Red Hunter to 1955	..	..	F75
347 c.c. 'N.H.' Red Hunter from 1956	..	..	FE75
497 c.c. 'V.H.' Red Hunter to 1952	..	..	F50
347 c.c. 'H.T.' Red Hunter from 1957	..	..	FE75
497 c.c. 'V.H.' Red Hunter H.T. and H.S. 1953-58	..	..	FE75
497 c.c. 'K.H.' Red Hunter Twin Cyl. to 1952	..	..	F50
498 c.c. 'K.H.' Red Hunter 1953-58	..	..	FE75
497 c.c. 'K.H.A.' Twin cyl. with Alloy Head	..	..	FE75
498 c.c. H.T. and H.S.*	..	..	FE75
498 c.c. 'K.G.' Fieldmaster	..	..	FE75
598 c.c. s.v. 1936-51	..	..	F50
598 c.c. s.v. 1952-54	..	..	FE50
598 c.c. s.v. with Alloy Head, 1955-56 model VB	..	..	FE75
600 c.c. o.h.c. 4-cyl. 1934-36	..	..	F75
646 c.c. F.H. Huntmaster Twin	..	..	F75
997 c.c. Square Four to 1952	..	..	F50
997 c.c. Square Four 4G, 1953-58	..	..	FE75
O.H.V. Single cyl. models 18 mm. plug	..	..	M60
Pixie	..	..	T90

*For competitions apply for special recommendations.

BENELLI

1950, 250 c.c. and 500 c.c., Normal	..	..	M60
Leoncino 125 c.c., Letizia 98 c.c.	..	..	F70
Two-stroke requiring 18 mm. plug	..	..	M60
Model 125S	..	..	F70
Leonessa 250 c.c.	..	..	FE80

BIANCHI

125 and 250 c.c.	..	..	FS50
250 c.c. Sports model	..	..	FS75
500 c.c.	..	..	M60
71 c.c. Gardina, 125 c.c. Mendola	..	..	F75
Bernina 123 c.c., Tonale 175 c.c.	..	..	F75
48 c.c. Aquilotto Normale	..	..	F75
48 c.c. Falco Sports	..	..	F80

B.M.W.

R24, R25, R25/1, R25/2, R25/3, R26, R27, R50, R50S, R51, R51/2, R51/3, R60, R66, R67, R67/1, R67/2, R68, R69, R69s	..	..	F80
R4, R11, R16	..	..	M60
R2, R3, R6, R12, R20, R23, R25, R35, R36, R37, R61, R71, R75	F75

BRIDGESTONE

All Models	F80
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BROCKHOUSE

Indian 'Brave', Corgi	FE70
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B.S.A.

B40, 350 Star	FE70
Rocket Gold Star	FE80
D1 Bantam—to 1954 (Iron Heads)	F50
1954-61 (Alloy Heads)	..	..	F70
D3 Bantam Major, D5, D7, Bantam Super	..	..	F75
C10, 250 c.c. s.v.—to ZC101377 (Iron Heads)	..	..	F50
From ZC101378 (Alloy Heads)	..	..	FE50
C11, C11G, C12, 250 c.c. o.h.v.	..	..	F75
C15, 250 Star	..	..	FE70
B31, 350 c.c. o.h.v., B33, 500 c.c. o.h.v.	..	..	F75

MOTOR CYCLES

MAKE AND MODEL

B.S.A. (continued)

M20, 500 c.c. s.v.—To ZM106000 (Iron Heads) .. .	F50
From ZM206001 (Alloy Heads) .. .	FE50
M21, 600 c.c. s.v.—To ZM21800 (Iron Heads) .. .	F50
From ZM218001 (Alloy Heads) .. .	FE50
M33, 500 c.c., o.h.v. .. .	F75
A7, 500 c.c., Twin, Star Twin, A10 Golden Flash 650 c.c. .. .	F70
SS80 250 Sports Star, D10 Bushman .. .	FE75
C15S 250 Scrambles .. .	FE80
B40, SS90 350 Sports Star, A65R .. .	FE75
A50C, 500 Cyclone, A65 Star .. .	FE75
B44 VE & GP Victor .. .	FE125P
A7, Shooting Star, A10 Cast-iron .. .	F75
A10, A7 Alloy, Bantam D10 Models, D14/4 .. .	FE75
Royal Star, A50, A50C, A65 .. .	FE75
Wasp A50W, A65L 1966-67 .. .	FE80
Lightning A65L to 1965, Victor Roadster .. .	FE75
Thunderbolt A65T, S15S Sportsman .. .	FE75
Hornet A65H .. .	FE80

Competition Models:

Spitfire Mk. II Special A65SS .. .	FE80
125 c.c. Bantam; 150 c.c. Bantam Major .. .	F70
B32, 350 c.c.; B34, 500 c.c. (Alloy Heads) .. .	FE75
Earlier B32 and B34 (Iron Heads) .. .	F75
C15T, Barracuda .. .	FE70

350 and 500 c.c. Gold Star:—

Recommendations on request according to tune and Fuel.

BUCKER

TZ 175, Ilona II .. .	F75
TZ 200, Ilona I—to 1952 .. .	F80
TZ 125, TR 125 H .. .	F80
Mofa .. .	M60

BUYDENS

175 c.c. two-stroke (Ydral engine) .. .	F80
250 c.c. (Ilo M2×125 engine) .. .	F80

BULTACO

200, Sherpa "N", Sherpa "T", Sherpa "S" .. .	FE65P
Compera, Mercurio .. .	F75
Tralla 102 .. .	F80
Metralla 62 .. .	FE75
Senior 200 .. .	FE70
Matador .. .	FE65P
Junior 74 c.c... .. .	F80
250 .. .	FE75

CECCATO

125 and 175 Tourer, 200 c.c. Sport .. .	F70
100 Lusso, 175 Sport .. .	F80
75 and 125 Super Sport .. .	F100

CSEPEL

100 and 125 c.c., 250 and 350 c.c. .. .	F50
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D.K.W.

18 mm. .. .	M60
RT3, RT100, RT125, NZ350 .. .	F75
RT200VS, RT127, RT200/2, RT250/2 RT350 .. .	F80

DOUGLAS

150 c.c. .. .	M30
250 c.c. 14 mm. .. .	F50
350 c.c. Mark V, Dragonfly .. .	F75
350 c.c. Comp. model .. .	F75
350 c.c., 80 plus; 90 plus .. .	F80

MAKE AND MODEL

DUCATI

Puma .. .	F75
100 Sport, 200 Elite, 125 Monza, 200 Super Sports, 200 Grand Sports .. .	F80
55E, 55R, M55 .. .	F75
T50, T3, 65T, 65TL, 65TS, 65S .. .	F70
98T, 98TL .. .	F75
98S .. .	F80
125 T .. .	F75
125 TV, 175 Silverstone Super .. .	F80
125S .. .	F100
175T .. .	F75
175S, Cruiser Muletto .. .	F80

DURKOPP

MF100 .. .	M30
M125, MD150, MD200 .. .	FS75

E.M.C.

350 c.c. 'Split-Single' two-stroke .. .	FE75
250 c.c. E.M.C.—Puch, Touring .. .	F75
125 c.c. E.M.C.—Puch, Racing model:—	
Recommendation on request according to tune and fuel.	

EXCELSIOR

122 c.c. Villiers eng. Universal 18 mm. plug .. .	M60
122 c.c. Villiers eng. Universal & Condor .. .	F75
147 c.c. Villiers eng. Pioneer Courier & Condex .. .	F75
148 c.c. Excelsior eng. Courier & Convoy .. .	FE75
197 c.c. Villiers eng. Roadmaster & Autocrat .. .	F80
244 c.c. and 246 c.c. Excelsior eng. Talisman Twin and Talisman Sports .. .	FE75
Super Talisman Twin .. .	FE75

FICHTEL & SACHS

Sachs 150, 175 .. .	M60
Sachs 100 .. .	M50
Sachs 50 .. .	F70
Famo 98—14 mm. heads .. .	F50
18 mm. heads .. .	M30
Famo 98 M50 .. .	M50
Stamo 98, 120, 160, 250, 300, 360 .. .	M50

FLANDRIA

125, 175, 200, 250 c.c. .. .	F75
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F.N.

M60, M67, M70 .. .	M60
M90 .. .	M30
Model 20 and Series III Luxus .. .	F75
450 c.c. model .. .	M60
250 Twin .. .	F75

FRANCIS BARNETT

175 c.c. model 79 Light Cruiser .. .	FE75
148 c.c. Villiers eng. Plover H40, H41, J40, J41, K40 and K41 .. .	ML30
98 c.c. Villiers eng. Snipe and Powerbike J49 .. .	M50
K49 and J50 .. .	
122 c.c. Villiers eng. Snipe and Merlin J48, K48 and L51 .. .	M60
122 c.c. Villiers eng. Merlin and Kestrel N51, O52, 53, 57, 59, 61, 63, 66 and 69 .. .	F70
197 c.c. Villiers eng. Falcon O54, 55, 58, 60, 62, 64, 65, 67, 70 and 72 .. .	F80
147 c.c. Villiers eng. Kestrel and Plover 69, 73 and 78 .. .	
225 c.c. Villiers eng. Cruiser 68, 71 and 75 .. .	F80
249 c.c. A.M.C. eng. Cruiser 80 .. .	FE75
Falcon, Villiers 10E engine .. .	F80
Falcon Model 87 (199 c.c. A.M.C.) .. .	FE75
Cruiser Model 84 (249 c.c. A.M.C.) .. .	FE75
Trials Model 85 (249 c.c. A.M.C.) .. .	FE75

MOTOR CYCLES

MAKE AND MODEL

FRANCIS BARNETT (*continued*)

Plover Model 86	..	..	FE75
Fulmar	..	..	FE75
New 150 Model 96 (149 c.c. A.M.C. 15T)	..	..	FE75
Plover Model 95 (149 c.c. A.M.C. 15T)	..	..	FE75
Fulmar Model 88 (149 c.c. A.M.C. 15T)	..	..	FE75
Sports Fulmar Model 90 (149 c.c. A.M.C. 15T)	..	..	FE75
Cruiser Twin Model 89 (250 c.c. Villiers 4T Twin)	..	..	F80
Sports Cruiser Twin Model 91 (250 c.c. Villiers 4T Twin)	..	..	F80
Trials Model 92 (246 c.c. Villiers 32A)	..	..	F80

GARELLI

94 c.c.	..	..	..	F75
49 c.c.	..	..	..	F75

GEIER

125 c.c. and 175 c.c.	..	..	..	F75
100K (Ilo FM100 engine)	..	..	..	M60
100K (Famo 98 engine)	..	..	..	M30
100K, VM100 (Famo 98 M50 engine)	..	..	..	M50
200 (Ilo M200 engine)—up to 1952	..	..	..	F75

GILERA

124 c.c., 125 c.c., 150 c.c., 175 c.c., B300, Jubilee 500VT	..	..	..	F75
Mercurio $\frac{1}{2}$ " reach	..	..	..	F75
Mercurio $\frac{3}{4}$ " reach	..	..	..	FE75
250, 500 Standard	..	..	..	M60
500 Sports	..	..	..	FS75
G150 Sports, Cast Iron Head	..	..	..	F75
G150 Sports, Alloy Head	..	..	..	FE75
B300 Short reach	..	..	..	F75
B300 Long reach	..	..	..	FE80
98 c.c. Long reach	..	..	..	FE75

GILLET

125 c.c. Utilitaire; 150 c.c. Standard	..	..	..	F75
250 c.c., two-stroke	..	..	..	F50
250 c.c., four-stroke	..	..	..	F75
300 c.c.	..	..	..	F50
350 and 500 c.c.	..	..	..	M60
125 c.c. two-stroke	..	..	..	F70

GNOME ET RHONE

350 c.c., o.h.v., 100 c.c.	..	..	..	M50
R3, R4, 125 c.c.	..	..	..	F80
L53, 175 c.c.	..	..	..	F75
R1, R2	..	..	..	F75

GORICKE-WERKE

Go 98 (Famo 98 engine)	..	..	..	M30
Go 98 (Famo 98 M50 engine)	..	..	..	M50
Go 100K, Go 100TN	..	..	..	M60
Go 125K	..	..	..	F80
Go 175	..	..	..	F80

Also see engine make.

GREEVES

Recommendations on request

HARLEY-DAVIDSON

Model K	..	..	..	..	F80
Model S, 125 c.c.	..	..	..	..	F50
1952 models requiring 14 mm. plugs	..	..	..	..	F50
E, EL, F, FL, requiring 18 mm. plugs—Front	
FLHF, FLH, FL	FS75
G, GA, WL, U, UL	M50

HECKER

K125, K175K	F75
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MAKE AND MODEL

HERCULES

Corvette	FS75
Prior, 47 c.c., 215, 216, 217, 218	F70
312, 314, 322	F50
317, 321, (Ilo M200 engine) 1952	..	..	..	..	F80
316 ..	..	..	..	..	M50
315 ..	..	..	..	..	M60
350, S204, S35/4, K125, K125/7	..	..	..	..	F50
S5.500, S125 ..	..	..	..	..	M50
MF2 (Famo 98 engine)	M30
MF2 (Famo 98 M50 engine)	M50

Also see Sachs Engines.

H.M.W.

H.M.W.	F50
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HOFFMAN

MF10/98 (Famo 98 engine)	M30
MF10/98 (Famo 98 M50 engine)	M50
175 Krad, MR125, HWL125	F80
MHF125 ..	..	..	..	..	F75
MR120-2 Krad ..	..	..	..	..	M60
Gouverneur 250 and 300 c.c.	..	..	..	..	F80
200 (Ilo M200 engine)—1952	..	..	..	..	F80

HONDA

P50, C50, C100, C102, C110, C114 ..	..	..	..	..	T90
C105, CD105, S65, C65, CR93, PC50 ..	..	..	..	..	T90
Monkey and Trials Bike ..	..	..	..	..	T90
C200 ..	..	..	..	..	TW270
S90, CM90, C92, CB92, C95, CB160, C72, CE90, CS125 Twin ..	..	..	..	..	TW275
CB72, CS72, CL72, C77, CB77, CS77, CD175 ..	..	..	..	..	TW275
CB450, CB250 ..	..	..	..	..	FE80
CA77, CAS77, CA72, CAS72 ..	..	..	..	..	TW275
CA95, CS92, CT200 ..	..	..	..	..	TW275
CIII ..	..	..	..	..	T90

HOREX

Resident 250 and 350 ..	..	..	..	..	FE100
Rebel 50 ..	..	..	..	..	F75
1954-55, Imperator, Regina 250, 350, 400 ..	..	..	..	..	FE80
1951-53, Imperator ..	..	..	..	..	F80
1952-53, Regina ..	..	..	..	..	F75
Regina Sport ..	..	..	..	..	F100
1948-51 SB.35 Regina ..	..	..	..	..	FE80
S2, S3 ..	..	..	..	..	M60

HUMMEL

Sitta 100, 120 ..	..	..	..	..	M60
Sitta 125 ..	..	..	..	..	F75
Sitta 200 1952 ..	..	..	..	..	F80

HUSQVARNA

Appollo, two-stroke ..	..	..	..	..	M50
170SV, 180SV, 190SV, 25SV, 30SV, 31SV, 35SV, 50SV, 61SV, 110SV, 112SV, 120SV, 130SV, 36SV, 40SV ..	..	..	..	..	M50
30TV, 50TV, 50TVA, 50TVB, 50TVX ..	..	..	..	..	M60
35TV, 110TV, 112TV ..	..	..	..	..	FE70
Silverpiller ..	..	..	..	..	FE80

INDIAN

Arrow, Scout, "Chief 74", "Chief 80"	..	..	..	..	FS75
Blackhawk ..	..	..	..	..	FS75
Brave, Pinto G1, Scooter SC1, Pathfinder G2	..	..	..	..	FE70
Mohawk G80, Trials G3C, Forty Five G15 ..	..	..	..	..	FE70
Woodsman, Arrow G2CS, Westerner G80CS ..	..	..	..	..	FE80
Typhoon G80 TCS, Apache G12CS ..	..	..	..	..	FE80
Apache $\frac{1}{2}$ " Reach ..	..	..	..	..	F80
Apache $\frac{3}{4}$ " Reach ..	..	..	..	..	FE80
Trailblazer, Tomahawk, Fire Arrow ..	..	..	..	..	F75
Fire Arrow Hound ..	..	..	..	..	F75

MOTOR CYCLES

MAKE AND MODEL

I.L.O.

F48	F75
F60 Famo, F60H, F60R, 80, 33/80, 33/100 ..	M30
FM48	M30
FM100, FM100V, FM100KV, FM120V, FM120KV, FM100/120 ..	M60
FP50, G50	F70
L200V	M30
LSu100	M60
LE145, LE175, LE200(BK)	M50
LE2×200(BK), LE250G3R, LE250DS	M60
LEGR200	M50
LEGR2×200, LEGR250, LEGR2×250	M60
M125V, M175, M175V	F75
M200—1952	F80
M250, M2×125	F80
MG100, MG125, MG125E, MG125EF, MG125VF	F75
MG125ER, MG125E/H, MG125EL, MG125V, MG150V	M60
MG150, MG175, MG175F, MG175S, MG175T, MG175TF, MG175V	F75
MGDY200, MGT200, MGT250	M60
MSL123	M30
MSL145	M50

JAMES

98 c.c. Villiers eng. Comet, Commodore, Comet Mk. II, Comet De Luxe and Comet 100 ..	F75
122 c.c. Villiers eng. Cadet Comp. and Cadet Mk. II	F75
147 c.c. Villiers eng. Cadet and Cadet 150 ..	F80
149 c.c. A.M.C. eng. Flying Cadet	FE75
172 c.c. A.M.C. eng. Cavalier	FE75
197 c.c. Villiers eng. Captain, Captain Comp., Colonel Commando, Cotswold, Captain 200, Commando 200 and Cotswold 200	F80
224 c.c. Villiers eng. Colonel and Colonel 225 ..	F80
249 c.c. A.M.C. eng. Commodore, Cavalier ..	FE75
249 c.c. A.M.C. eng. Commodore Trials	FE80
250 c.c. Villiers twin	F80
New 150, Model M16, 149 c.c., A.M.C. 15T eng. Captain Model L20, 199 c.c. A.M.C. 20T eng.	FE75
Captain from Sept. 1959-on, 199 c.c. A.M.C. eng.	FE75
Captain Model L20S, 199 c.c. A.M.C. 20S eng. Sports Super Swift Model M25S, 250 c.c. Villiers 4T Twin-eng.	FE75
Trials Commando Model M25T, 246 c.c. Villiers 32A eng.	F80

J.A.P.

S.V. to 1350 c.c. except 500 c.c. Twin	M50
O.H.V. models, 14 mm.	F75
O.H.V. models, 18 mm.	M60

JAWA

500 c.c.	FS50
1954-on 125 c.c., 150 c.c., 200 c.c., 250 c.c.	
350 c.c.	F75

Other models—14 mm. F50

KAWASAKI

85J1, 85J1T, 85J1TR, 125B8	FS75
120C, 125BSM, 150B8S, 175F1TR, 175F1 ..	F75
175F2, 85J1	F75
250A1, 250A1SS, 350A7 Avenger	F80
650 W1 Commander	FE75

AER MACCHI

Corsaro 150, Zeffiro 125 and 150, Monsone 125 ..	F75
125 U, C, M, N, S	F75
Chimera 175	FE80
250 c.c. 2-cylinder	F75
Autocarro MB1, Motofurgoncino MB8	F75

MAKE AND MODEL

MAICO

M125, M126, M150, M151, M153, M175, M175-1, M200	F75
M175-S11, M200-S11, MB200, M250-S	F80
M175-SS	F220
Blizzard M250-S1, M250-S11, M277-S	F75
Taifun -350 and -400	F80
Gelände-Sp (trials) -175, -250, -277	F220
Mobil MB-151, MB-175	F70
Mobil MB-200	F80
Maicoletta -175, -250, -277	F80
Wiesel -50	F75
F100 (Famo 98 engine)	M30
F100 (Famo 98 M50 engine)	M50
Typhoon Scrambler	F80

MATCHLESS

S.V. Models 14 mm.	F50
1946 350 c.c.	F50
1946 500 c.c.	F75
1947-49 All models Cast-Iron Heads	F75
1950-64 all models Alloy Heads except Scramblers and Racers	FE70
1964 on G3C, Maestro, G80 Major	FE75
1964 on G12 Majestic, G15, G15CSR, G3C Trials	FE75
1964 on G3 Mercury, G12CSR Monarch	FE80
1964 on G2CSR Monitor Super Sports	FE80

M.M.

51 AS, 54A, CTS Spinta	FE80
51AS Spinta	FE100
500VL, CT, 51A	FE75
Motocarro	F80
47D	F80
47A, 47C	F70
47AS	F100

MONDIAL

48, 125, 160, 175	F75
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MONTESSA

D51	F50
Brio 80, Sports 125 c.c.	F80
Brio 80, 125 c.c.	F75
Brio 90, 125 c.c.	F80
Impala Sport	F80

MORINI

125T & S, 175T, Briscola	F80
175 G.T., 98 4T	FE80
175 Settebello, Re Bello	FE100

MOTOBECANE

Velomoteur	F50
S.V. 14 mm.	F50
Other models 14 mm.	F75
350 c.c. 2-cyl. long reach plug	FE80

MOTO-GUZZI

Galletto-Airone N	FS50
Airone Sports, Falcone	F80
Astorre, Super Alce	FS50
Aldetta Egretta Airone PE250S, V, GTV	M60
Zigolo, Cardellino	F75
Lodola, Stornello	FE70
Galletto 175	FE50

M.V. AUGUSTA

83 c.c., 99 c.c.	F80
125T, 150T	F70
125S, 150S, 175, CS	F80
175CST, L	FE50
235 c.c.	FE75

MOTOR CYCLES

MAKE AND MODEL

NORMAN

See Villiers

NORTON

Model 16H, 500 c.c. s.v.	FE70
Big Four 596 c.c. s.v.	FE70
Model 18 490 c.c. o.h.v.—30, 40 Cast-Iron	F75
30, 40 Alloy	FE80
ES2, 88, 7, Cast-Iron	F75
ES2, 88, 7, 99 Alloy	FE70
19R, 19S, 50, 77, 500T	FE70
650-Dominator	FE75
1964-on, all models except Atlas	FE75
Atlas 750 c.c.	FE80

N.S.U.

25 10SL	F75
Fox, Super Fox 125 c.c., Super Lux 200 c.c.,	
Max 250 c.c., Super Max 250 c.c., 300 c.c. (o.h.c.)	F75

PANTHER

65, 75, 100, 100S and 120S	F70
60, 70 and 100	F70
Stroud, Mk. II and Mk. III	F70
10/3, 10/4, 25, 35, 45, 50, 120	F75

PARILLA

125, 150	F75
125S, 175S, 250S	F80
98, 250T	F75
250C	FE80

PEUGEOT

150 c.c., P155, P156	F70
175 c.c.	F50
250 c.c. 2-cyl. 256	F75
175 c.c. 176 Grand Sport	FE80

PUCH

60 c.c., 125 c.c., 175 c.c., 250 c.c.	F75
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RABENEICK

LM100E (Famo 98 engine)	M30
LM100E (Famo 98 M50 engine)	M50
KM100	M60
SM125, SM175	F75
SM500	F70
Binetta (47 c.c. Sachs engine)	F75

Also see Ilo Engines.

ROYAL ENFIELD

350 c.c. Clipper and G, 248 c.c. Clipper and Crusader and J2 500 c.c., 248 c.c. Olympic	F75
Continental, Continental G.T.	F80
Ensign, R.E., Prince	F50
350 c.c. Bullet, 500 c.c. Bullet, $\frac{1}{2}$ " reach	F75
$\frac{3}{4}$ " reach	FE70
Meteor Minor Sports	FE70
Super Meteor, Meteor Minor to Engine No. SMCA7027	F75
From Engine No. SMCA7028-on	FE70
700 c.c. Meteor Twin, 500 c.c. Twin $\frac{1}{2}$ " reach	F75
700 c.c. Constellation	FE70
Trials Works Replica	F75
249 c.c. Turbo Twin	F80
736 c.c. Interceptor	FE75

SAROLEA

Simoun	F80
Model AS, 350 c.c. s.v.	F50
T. Shoco, 500 c.c.	M50
B35, 50BL, Sports and Vedette, 350 c.c. o.h.v.	F80
T6 Tourist, 50T6, 50TL6	F50
S6 Super Sport 50, SL6, 600 c.c., o.h.v. & s.v.	F70
50LW Bluebird, 125 c.c.	F75

MAKE AND MODEL

SUZUKI

50 c.c. M15, M15D, M30, M31	FS100
M12 Super Sport	FS100
80 c.c. K10, K11 Sport, K15	FS100
125 c.c. S31	FS100
125/150 c.c., S30/S32	FS100
250 c.c. T10 Twin	F100
250 Super Six	F80
U50	

TRIUMPH

Bonneville (T120), T120R, TR7A	FE75
Speed Twin (5TA)	FE75
Twenty-One (T21)	FE75
1956-62 Tiger 110 (Alloy Heads)	FE75
1954-55 Tiger 110 (Iron Heads)—Without air-filter	F100
With air-filter	F80
Thunderbird (6T), Speed Twin (5T), Tiger Cub (T20), Terrier (T15), Super Cub, Sports Cub, 3T	F75
1951-62 Thunderbird 6T (Alloy Heads)	FE75
1951-62 Tiger 100 (Alloy engines), Tiger T90	FE75
1946-50 Tiger 100 (Iron engines), TS20	F80
1956-66 Trophy (TR6)	FE75
1955-58 Trophy (TR5) Alloy	FE80
1951-54 Trophy (TR5) Alloy	FE80
1949-50 Trophy (TR5) Cast Iron	F75
350 c.c. De Luxe (3T) Tiger 85	F70

Grand Prix and T100C racing models:

Recommendations on request according to tune and fuel.

VELOCETTE

350 and 500 Scrambler, Endurance	FE80
Valiant, Vogue	T90
LE200 and LE149	T90
Viper 350 c.c., Venom 500 c.c.	FE80
1954-66 MSS Alloy Head	FE70
1951-60 MAC Alloy Head	FE70
Viper-Special, Veeline	FE80
Viper-Sports, Clubman	FE75
Venom-Sports, Special	FE75
Venom-Veeline, Clubman	FE80

VILLIERS ENGINES

75 c.c. Mk. 7	F20
75 c.c. Mk. 7/1	F50
98 c.c. Junior	F50
98 c.c. Mk. 1F	F75
98 c.c. Mk. 2F	F75
98 c.c. Mk. 4F	F75
98 c.c. Mk. 6F	F75
122 c.c. Mk. 10D	F75
122 c.c. Mk. 11D Comp.	F75
122 c.c. Mk. 12D	F75
122 c.c. Mk. 13D	F75
122 c.c. Mk. 8D, 9D	F75
147 c.c. Mk. 8C	M50
147 c.c. Mk. 24C	M60
147 c.c. (Mk. 24C) Invalid Chair	M60
147 c.c. (Mk. 26C) Invalid Chair	M60
147 c.c. Mk. 29C	F80
147 c.c. Mk. 30C Fan cooled	F80
148 c.c. Mk. 31C	F80
148 c.c. Mk. 12C	ML30
172 c.c. Sports	ML30
173 c.c. Mk. 2L, 3L	F80
197 c.c. Mk. 6E	F80
197 c.c. Mk. 7E	F80
197 c.c. Mk. 8E, 10E, 11E	F80
197 c.c. Mk. 9E and 35F, 45F	F80
225 c.c. Mk. 1H	F80
246 c.c. Mk. 2H	F75
246 c.c. Mk. 31A, 32A, 31A/3S, 31A/4S	F80
246 c.c. Mk. 33A, 34A, 36A	FE80

MOTOR CYCLES

MAKE AND MODEL

VILLIERS ENGINES (continued)

249 c.c. Mk. 2T Twin, 35A, 37A	..	..	F80
249 c.c. Mk. 14A, 17A, 18A	..	..	ML30
324 c.c. Mk. 3T Twin 4T Twin	..	..	F80
353 c.c. Mk. 28B	..	..	F80

YAMAHA

YE, YDS1, YL-1E, YA-5	..	..	F75
YA1	..	..	FS50
YA-2, YA-3	..	..	F50
MF2K, MF3D, U-5, YF1, YG-1, YA-6	..	..	F80
YG-1K, YDT-1, YL-1, YGS-1, YL-2, YL2-C	..	..	F80
YCS-1, YJ1, U7, YG-1TK, YG-1SK, YGS-1T	..	..	F80
YD3, YM-2C, YR-1, YJ-2, YDS-3, YM-1	..	..	F80
YDS-2, YDS-3C, YDS-5	..	..	F80

ZUNDAPP

Comfort	..	..	F75
KS601, KS600, DB200, DB201, DB202	..	..	F70
Combinette	..	..	F70
175S, 200S, 201S, 250S	..	..	F80

MARINE—OUTBOARD ENGINES

AMANDA

100 c.c., 200 c.c. $\frac{1}{2}$ " reach	..	..	F50
$\frac{3}{4}$ " reach	FE70

APEX

J.A.P. Engines	F50
R.C.A. Engines	F75
50, 75, 80, 85	F50

AEROJET

..	FS75
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AILSA CRAIG

59-6 c.c. 2 stroke engine	F80
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AIRBOY

Model 20 and 40	FS50
Model 50	FS75

ALBIN-HUSQVARNA

3.5 h.p.	F50
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A.P.

Minor	F50
Plus	F50
Compact	F50

ATCO—Boat-impeller

AB 2 $\frac{1}{4}$	F50
AB 5 $\frac{1}{2}$	M60
79	M60
147	..	..	..	..	M60

AQUAJET

Mk. IV	..	..	..	..	F50
Minor	..	..	..	..	F50
Super Minor	..	..	..	..	F50

AQUAPLANE

105 Super Sports	..	..	..	..	FE75
105 Competitor	..	..	..	..	FE80
105 Utility Sports	..	..	..	..	FE75
204 Super Sports	..	..	..	..	FE75
204 Competitor	..	..	..	..	FE80

MAKE AND MODEL

ARCHIMEDES

A1, A2, A3, B1, BSL, BSP, BSMM, B2, B3, B6	..	..	M60
B20, S20	..	..	F50
B22, B23, M1, S35, S50, S80	F50
A30A	F50
A60A	F75
A4	M30
AB20, AB35, AB40, AB50	F50

ASPIN

5.5 h.p.	F50
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ATLAS

Skipper	FS50
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BERMUDA

2/40	FE70
2/40 Military version	FE75
Sportsman Skeeman	FE75

BROOKLURE

..	FS75
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BUNDY

500 c.c.	F75
300 c.c.	FS50

BUCCANEER

All models to 1959	FS75
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BIANCHI

125 c.c.	FS50
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BRIT

Minor BM	F50
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BRITISH ANZANI

Minor	F50
Pilot, 1, 2, 3, 4	F50
Seamaid Jet 3	F50
Super Single	M30
Seasprite, Supertwin	..	..	..	..	F75
65	..	..	..	..	FS50
400	..	..	..	..	F75
Magnatwin, Fleetwin	..	..	..	..	F75
Unitwin	..	..	..	..	F75
Triton	..	..	..	..	FE70
18 h.p.	..	..	..	..	F70

BRIGGS & STRATTEN

Series 601, 603, 801, 805, 807, 807, 6B,
8B	FS50
18 mm. Plug	M50

BRITISH SEAGULL

All Models	M50
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BROCKHOUSE ENGINEERING

Swordfish 14 mm.	FE50
Swordfish Britannia 18 mm.	M60

CAL-JET

Econjet, Ramjet	FS50
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COVENTRY CLIMAX

FWM 750 c.c.	FE70
FWA Mk. IIIF.P.F. Vertical Outboard	FE80

CHAMPION

A, 1B, R1C, S1C, S1D	..	..	..	..	M30
2B, 3B, D1C, D1D, D3D, S2C, S2D	..	..	..	..	M30
D2C, D2D, D1E, 1J, 2J, 1K, 2K, 4K, 1L, 4L	..	..	..	..
2M, 2L-HD, B1F, D1F, S1F, 2G, M2G, 2H	..	..	..	..	M30
2MM, 2N	..	..	..	..	M30
3G, 1H, M1G, D1G, S1G	..	..	..	..	F50
D4G, M4G, S4G	..	..	..	..	F70

MARINE—OUTBOARD ENGINES

MAKE AND MODEL

CHAMPION (*continued*)

3M-GS, 4M-GS, 3MM-GS, 4MM-GS, 3N-S, N-D	..	..	..	FS50
6M-GS, 6M-HD, 6MS-GS, 6MM-GS, 6M-D, 6N-MS	..	..	..	FS50

COVENTRY VICTOR

14 mm. $\frac{3}{4}$ " reach	..	..	..	FE50
14 mm. $\frac{1}{2}$ " reach	..	..	..	F50
18 mm.	..	..	..	M50

COMMODORE

2 h.p. . . . .	..	..	..	F50
7 $\frac{1}{2}$, 10 h.p. . . . .	..	..	..	F70
18, 40 h.p. . . . .	..	..	..	FS100

CORSAIR

All 3-6, 4, 5, 7 $\frac{1}{2}$ h.p. models . . . . .	..	..	..	F50
1953-56 10 h.p. . . . .	..	..	..	F50
1956 30 h.p. . . . .	..	..	..	FS75

CRESCENT

Marin 4, 18 h.p., 25 h.p.	F80
Marin 8, Marin 9	F75
15 h.p., 22 h.p., 45 unit	F80

DUSELLA

70 c.c., 3 h.p.	F50
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EXCELSIOR

.	FE70
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ELCO

14 mm.	FS50
18 mm.	M50

ELGIN

58321, 58241, 58331, 58241 and 59241, (2 h.p.) 6001, 58563, 59501, 59521, 59541, (5-5 h.p.) 6002, 6003, (3 $\frac{1}{2}$ h.p.) 6006, (6 h.p.) 6009, 6010 (7 $\frac{1}{2}$ h.p.)	F50
59701, 59721, 59731, 58741, 59741, 59751, 58791, 58341, 59791, (7 $\frac{1}{2}$ h.p.) 59011, (8 h.p.) 59891, (10 h.p.) 58902, 58912, 58941, 58961, 58971, 18951, 18801, 58891, 59561, 59881, 58991, (12 h.p.) 59601, 59861, 59871, (25 h.p.) 59421, 59431, 59621, 59631, 59801, 59811, (30 h.p.) 59402, 59403, 59412, 59413, 59441, 59451, 59831, 59821, 59901, 59911 (35 h.p.) 6012, (12 h.p.) 6025, 6028, 6032, (25 h.p.) 6040, 6043-6047, (40 h.p.) 6060-6063, (60 h.p.) 6013, 6014, 6015, (14 h.p.) 6033, 6035, (27-7 h.p.) 6034, 6036, 6037, 6038 (28 h.p.) . . . . .	..	..	..	F70
59661, 59671, (18 h.p.) 594001, 594011, 594021, 594031, 59461, 59471 (40 h.p.) . . .	..	..	..	FS75
6005 (6 h.p.), 6008 (7 $\frac{1}{2}$ h.p.) . . . . .	..	..	..	FS100
6052, 6053, (43-7 h.p.) 6072, 6073, (75-2 h.p.) 6054, 6055, 6057, 6056, (45 h.p.) 6074, 6075, 6076, 6077 (75 h.p.) . . . . .	..	..	..	F50
ELGIN (Canada)				FS100

ELTO

Foldlight, (2 $\frac{3}{4}$ h.p. Fisherman, Lightwin, Imperial Service "A", Super "A", Fifetwin, (8-5 h.p.) Senior Speedster, (13-7 h.p.) Single, Supersingle (2-2 h.p.) . . . . .	..	..	..	M50
Special Speedster (9 h.p.) . . . . .	..	..	..	M30
Speedster 1949 (12 h.p.), Sportster (5 h.p.) . . .	..	..	..	FS75

EVINRUDE

Big Twin 1951-55 (25 h.p.), Fleetwin 1950-58 (7 $\frac{1}{2}$ h.p.), Fastwin 1950-52 (14 h.p.), 1955-57 (15 h.p.) Super Fastwin 1953-54, Lightwin 1952 (5-2 h.p.), Sportsman 1958-51 (1 $\frac{1}{2}$ h.p.), Sportwin 1948-51 (3-3 h.p.)	FS75
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MAKE AND MODEL

EVINRUDE (*continued*)

Big Twin 1956-67 (30-40 h.p.), Speeditwin 1962-64 (28 h.p.), Lark 1956-67 (30-40 h.p.), Four-Fifty (50 h.p.), Starflite (70-90 h.p.), Speedifour 1964-67 (75 h.p.), Yachtwin 1964-67 (3 h.p.), Sportfour 1964-67 (60 h.p.), Skitwin 1965 (33 h.p.)	FS100
Fastwin 1958-67 (18 h.p.), Ducktwin (3 h.p.), Lightwin 1953-67 (3 h.p.), Fisherman 1964-67 (5 $\frac{1}{2}$ h.p.), Sportwin 1956-67 (10 h.p.), Angler 1965-67 (5 h.p.) . . . . .	..	..	..	FS100 or FS75
Ranger (1-1 h.p.) . . . . .	..	..	..	F50
Zephyr (5-5 h.p.) . . . . .	..	..	..	FS75

FIRESTONE

All 3-6, 4, 5, 7 $\frac{1}{2}$ h.p. models . . . . .	..	..	..	F50
1953-56 10 h.p. . . . .	..	..	..	F50
1956 30 h.p. . . . .	..	..	..	FS75
1960-62 models (2 h.p.)	F50
7 $\frac{1}{2}$, 8 and 12 h.p., 25, 30 h.p.	F70
40 h.p.	FS100
Featherweight V 1966	FS20

FERRIER

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FLAGSHIP

150, 220, 240, 310	FS75
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FORD & LINCOLN

Consul & Zephyr models	FE50
8 & 10 h.p. Units	F50
V8 14 mm. plug	F50
V8 18 mm. plug	M30

GARELLI

Garijet	F75
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GARDNER

.	M30
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GALE

Buccaneer 3, 5, 15, 25 h.p.	FS75
Buccaneer 35, 40, 60 h.p., Sovereigns 35, 40, 60 h.p.	FS100

GUPPY

.	FS50
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HUSQVARNA

.	F75
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J.L.O.

Nautilo 75 (3 h.p.)	F80
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Nautilo 100 (5 h.p.)	M60
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JOHNSON

AD series (7 $\frac{1}{2}$ h.p.), CD series (5 $\frac{1}{2}$ -6 h.p.), FD, FDE, FDEL, FDL series (15-18 h.p.), HD series (2 $\frac{1}{2}$ h.p.), JH & JW series (3 h.p.), LD (5 h.p.), MD20, MS20 (1 $\frac{1}{2}$ h.p.), MQ series (9 $\frac{1}{2}$ h.p.), OD, ODL series (10 h.p.), TD, TN, TS series (5 h.p.)	FS75
RD, RDE, RDL, RDLS, RDS, RJ, RJE, RJEL, RK, RKL, RX series (25-40 h.p.), V4, V4H, V4A, V4AL, V4S, V4M, VX, VXH, VXL series (50-90 h.p.) . . . . .	..	..	..	FS100
AT10 to AT39 (5 h.p.), DS37, DS38 (2 h.p.), DT10 to DT39 (5 h.p.), HA10, HA39 (2 $\frac{1}{2}$ h.p.), HD, HS series (2 $\frac{1}{2}$ h.p.), J80 (1-7 h.p.), LS37, LS38 (2 h.p.), LT10 to LT39 (5 h.p.), MD, MS series (1 $\frac{1}{2}$ h.p.), 100, 110 (1-7 h.p.), 300 (3-7 h.p.) . . . . .	..	..	..	FS50
V4 1966, ML, V100, Golden Meteor . . . . .	..	..	..	FS100

KELSTON

100 c.c. . . . .	..	..	..	F75
125 c.c. . . . .	..	..	..	FE70

MARINE—OUTBOARD ENGINES

MAKE AND MODEL

K.S.

KS 34B Canoe Motor	F50
Dinghy Motors A & B	F50

LAUSON

LAUSON	FS50
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MALLARD

75 c.c., 104 c.c.	FE50
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MEDINA

7·5 h.p.	F75
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MAJESTIC

1952 M-2-L, M-4, LGS, M-2-LL, M-2-N	..	M30
M-6-LLGS, M-6-NGS	..	FS50

MARINER

M1G, M4G	F50
M2G	..	..	..	M30

MARTIN

20 (2½ h.p.), 100 (10 h.p.)	..	..	..	FS75
60 (7·2 h.p.), 66 (7·2 h.p.), 75 (7½ h.p.)	..	..	..	FS50
60 High-Speed (7½ h.p.), gasoline	..	..	..	FS75

McCULLOCH

1964-67 Models 3½, 7½ h.p.	..	..	..	F50
Manual: 28, 45 h.p., OX 450 (45 h.p.)	..	..	..	FS100
590/630	..	..	..	FS100

MERCURY

K1 (2·5 h.p.), K2, K3 (3 h.p.), K4, K5 (6 h.p.), KB1 (2·9 h.p.), KB1A (3·1 h.p.), KB2, KB3, (3·2 h.p.), KB4 (5·8 h.p.), KB5 (6 h.p.), KB4-1 (5·8 h.p.), KD3 (3·2 h.p.), KD3S (3·2 h.p.)	..	..	..	FS50
MERC.39 (3·9 h.p.)	..	..	..	FS50
KG7, KH7, KG7H (10 h.p.), KG4H (7·5 h.p.), KG9, KG9H (25 h.p.)	..	..	..	FS75
MARK SERIES 20 (16 h.p.), 25 (25 h.p.), 28 (22 h.p.), 58 (45 h.p.), 30, 30H (31 h.p.), 35A (35 h.p.), 50, 50H (25 h.p.), 50, 55 (40 h.p.), 75 (60 h.p.), 78 (70 h.p.)	..	..	..	FS75
MERC Series 200 (20-22 h.p.), 250 (25 h.p.), 300 (35 h.p.), 350 (35-40 h.p.), 400 (45 h.p.), 450 (45 h.p.), 600 (60 h.p.), 700 (70 h.p.)	..	..	..	FS75
MERC 500 (50 h.p.), 600 (60 h.p.), 850 (85 h.p.), 1000 (100 h.p.)	..	..	..	FS100
MERC 800E (80 h.p.)	..	..	..	FS100
MERC 800 EL (80 h.p.)	..	..	..	FS100

NEPTUNE

OB1, 2, 2C, 3, 4, 5, 31, 32, 51, 63	..	..	M30
101, 189, 139, 1A39, 10A1 (1½ h.p.)	..	..	FS50
111, 11A1, 15A1 (1½ h.p.)	..	..	FS20
104, 106, 113, 114, 116, 539, 938, 1010, 1110, 4A39, 5A39, 9A39, 10A4, 10A6, 11A3, 11AA3, 11AA10, 10A10 (9½ h.p.), 11A6, 11AA6 (6 h.p.), 15A3, 15AA3 (3½ h.p.), 15A6, 15AA6 (6 h.p.), 15A9, 15AA9 (9½ h.p.), 17A1, 17A2, 17A3, A1, AA1, AA1a, A2, AA2, AA4, AA6, AA10 (10 h.p.)	..	..	FS75

PERKINS

6 h.p.	..	..	..	..	..	FS50
16 h.p.	..	..	..	..	..	F70
40 h.p.	..	..	..	..	..	F75
1961 35 h.p. (14 mm. head)	..	..	..	..	..	F75
1962 4½ h.p.—6½ h.p.	..	..	..	..	..	FS50
18 h.p.	..	..	..	..	..	F70
30 h.p.—40 h.p.	..	..	..	..	..	F75

PENTA

U2, U2M, U21, U21F, U21S, 3 h.p., 7 h.p.	..	M30
U21 Racer, U22, S2, 1-2	..	..
Z2	..	..
PA20	..	..

MAKE AND MODEL

PENTA (*continued*)

PA80, PA120, PA120B	..	..	..	F50
PB200, PB250	..	..	..	F50
PB400, PB500	..	..	..	F50
P200A, P300A, P600A	..	..	..	F75
PA120, PA120C, PL150	..	..	..	F75
BB30B, MB18B, BB100	..	..	..	F75
MB16, MB36, BB25, BB30, BB70	..	..	..	FS75
30 h.p. 18 mm.	..	..	..	M60
Aquematic 80, 90	..	..	..	FS75
Aquematic 100, 95	..	..	..	F55P
Aquematic 110—Normal	F55P
Ski-ing	F80
BB30F, MB18F, AQ60F, all paraffin	F50

PETER PAN

1·5 h.p.	FS20
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PUFFIN

75 (2½ h.p.)	FE50
105	FE50
105 De Luxe (5 h.p.)	FE50

SCOTT (McCULLOCH)

1959-60 12, 25, 40 & 60 h.p.	FS75
3·6, 6, 7½ & 10 h.p.	..	..	..	..	F50
1961, 43·7, 75·2 h.p.	..	..	..	..	FS100
14·1, 27·7 h.p.	..	..	..	..	FS75
7·5 h.p.	..	..	..	..	F50
1961-62 Scotty (3·5 h.p.)	..	..	..	..	F50
Royal Scott Manual (45 h.p.)	..	..	..	..	FS100
Sports Scott (28 h.p.)	..	..	..	..	FS75
Fleet Scott & Power Scott (14 h.p.)	..	..	..	..	FS75
Fishing Scott (7·5 h.p.)	..	..	..	..	F50

SCOTT-ATWATER

All 3·6, 4, 5, 7½ h.p. models, 1953-58	..	..	..	..	..
10 h.p. models	..	..	..	..	F50
1955, 30 h.p., 1956, 33 h.p.	..	..	..	..	FS75
1958, 22-25 h.p., 40 h.p., 60 h.p.	..	..	..	..	FS75

SEA-BEE

Tempest, Hurricane	..	..	..	..	FS50
Minor 80, 5	..	..	..	..	F50

SEA KING

1950-63, all 1½-25 h.p. models	..	..	..	..	FS100
All 35-60 h.p. models	..	..	..	..	FS100
1964-66 3½, 5, 8, 9 h.p.	..	..	..	..	F70
20-80 h.p. 1966	..	..	..	..	FS100

SEARS

1964-65 6003 (3½ h.p.), 6010, 6012 (7½ h.p.), 6004 (6 h.p.)	..	..	..	..	F50
6015 (14 h.p.), 6037, 6038 (28 h.p.)	..	..	..	..	FS75
6056, 6057, 6058 (45 h.p.), 6076, 6077, 6078 (75 h.p.)	..	..	..	..	FS100
5927 (12 h.p.)	..	..	..	..	F70
5941 (35 h.p.)	..	..	..	..	FS100

SEA CHIEF (ELK)

J.A.P. Engines	F50
R.C.A. Engines	F75
Excelsior Engines	FE70

TIDEMASTER

..	F50
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VIKING

3	FS75
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VINCENT

75 c.c., 100 c.c., 200 c.c. Twin	F75
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MARINE—INBOARD ENGINES

MAKE AND MODEL

EVINRUDE

DU series	FS100
CU, SU series	FE70
HU series	FS55P
KU Series	FS75

EXCELSIOR

EXCELSIOR	FE50
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FELTHAM

FELTHAM	M50
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FENN & WOOD

FENN & WOOD	F50
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FLAGSHIP

FLAGSHIP	85, 90, 100, 118, 145, 150, 185, 220, 240, 283, 310, 327	FS75
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FORD

14 mm. $\frac{1}{2}$ " reach	F50
Consul, Zephyr	FE50
105E, 109E, 112E, 115E, 122E	FE70
122E, G.T.	FE75

GYRO

GYRO	350, 700	M60
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GARDNER

GARDNER	M30
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GRAY

Lugger Light Four-69, Sea Scout Four-91, Four-45	FS20
Lugger Four-22, Four-52, Four-112, Six-51, Six-121, Six-186, Six-330	M30
Lugger Four-40, Four-75, Four-85, Four-85td, Four-140, Four-162, Six-91, Six-244	..	..	..	..	M30
Six-226, Six-330	..	..	..	..	M30
Express Sea Scout-91	..	..	..	..	FS30
Express Four-112	..	..	..	..	M30
Express Four-52, Six-427, Super Six-427, Super Six-363, Six-71, Six-77, Compact 80, Six-111	..	..	..	..	M30
Phantom Four-75, Four-86, Four-85, Four-162	..	..	..	..	M30
Model 70, 100, 109, 109TD, 110, 116, 118, 120, 122, 135, 150, 136, 165, 175, 185, 205, 620, 750	..	..	..	..	M30
Fireball Four-50	..	..	..	..	FS50
Fireball Four-90	..	..	..	..	M30
Fireball V8, models 135, 160, 170, 175, 188, 195, 215, 220, 225, 238	..	..	..	..	FS75
Fireball V8C, 138, 138B, 178, 178B, 188, 215 225, 238, 280, 310	..	..	..	..	FS75
Fireball V8CF & V8CH, 175, 195, 220, 238, 260	..	..	..	..	FS75
Fireball V8A-136, V8A-160	..	..	..	..	F75
Rolls-Royce	..	..	..	..	FE70

HALL SCOTT

LM-6A	..	..	..	..	M30
170, 171, 112, 114-2, 123-2, 129-2, 132-1, 133-5, 157, 158DD	..	..	..	..	M30
Explorer 200-0, 231-3, 230, 231	..	..	..	..	M30
Fisher Jr. 178-1, 179	..	..	..	..	M30
Invader 168, 169	..	..	..	..	M30
Invader 183, 184, 186, 187-3	M30
Navigator 115-2, 117-2, 164-5, 163S	M30

HIRTH

HIRTH	5 h.p.	M60
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INTERCEPTOR

Normal operation	MT55P
Continuous (Hi-Speed)	MT65P
390	MT65P

MAKE AND MODEL

J.A.P.

34 c.c. two-stroke air and water-cooled	..	..	F50
Petrol models 2A, 2S, 4F, 4/2, 4, 3, 5, 6, 55	..	..	FE50
1950-on	..	..	F50

JOHNSON

DU Series	..	..	..	..	FS100
CU, SU Series	..	..	..	..	FE50
HU Series, TU Series	..	..	..	..	FS55P
KU Series	..	..	..	..	FS75

KERMATH (U.S.A. and Canada)

Sea Chief 4 Fisherman, Cub, Flyer, Sea Cub, Sea Flyer	..	..	..	..	FS50
Sea Chief 4 High-Speed, Sea Chief 6 & 8, Victor	..	..	..	..	FS75
Sea Chief 4 Super Speed, Mercury, Zephyr	..	..	..	..	F50
Canadian	..	..	..	..	M30
Sea Farer 14 mm. heads	..	..	..	..	FS50
Sea Farer Special, Sea Rover Special	..	..	..	..	FS75
Sea King—U.S.A. models	..	..	..	..	FS50
Sea Captain: 14 mm. heads	..	..	..	..	FS50
Model V8—14 mm. heads	..	..	..	..	F50
18 mm. heads	..	..	..	..	M30
Sea Mate, Sea Prince, Sea Prince Special, Sea Mate Special, U.S.A. models	..	..	..	..	FS75
Canadian models	..	..	..	..	FS50
Sea Master, Sea Hawk, Sea Wolf (Canadian)	M30
Sea Pup One-18, Two-34, Sea Twin (10 h.p.)	FS50

KOHLER

Model L60	FS50
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KELVIN BERGIUS

33 h.p. Twin Screw	M60
Poppet Valve models	M30
Ricardo range	M30

LEHMAN ECON-O-POWER

Ford, Edsel, Lincoln, Mercury—14 mm. heads	..	..	..	..	F50
Chevrolet eng. & Series J	..	..	..	..	FS50
Falcon/Comet eng.	..	..	..	..	MT45P
Willys eng.	..	..	..	..	FS50
Buick 340-401, 425	..	..	..	..	FS55P
80	..	..	..	..	FE65P

MEADOWS

Kittiwake 12/22 h.p.	..	..	..	..	M30
Kingfisher 9.5/33 h.p.	..	..	..	..	F50
Shearwater, Cormorant	..	..	..	..	M60
Other 14 mm. models	..	..	..	..	F50
Other 18 mm. models	..	..	..	..	M60

MORRIS

Vedette Mk. I, II, III	..	..	..	..	M30
Vedette Mk. IV and V	..	..	..	..	F50
Navigator Mk. I	..	..	..	..	M30
Navigator Mk. II and III	..	..	..	..	F50
Commodore Mk. I and II	..	..	..	..	M30
Commodore Mk. III	..	..	..	..	F50

1957-on see **Newage B.M.C.**

MANGOLETSI

70	..	..	..	..	FE70
90, 100	..	..	..	..	FE75
89, 110, 120, 150	..	..	..	..	FE65P

MERCRAUISER

110 h.p., 120 h.p., 140 h.p., 150 h.p., 160 h.p.	..	..	..	..	FE70
190, 225 h.p.	..	..	..	..	FS75
Model 310, 315	FE80
MCM 170 292 cu. in.	FE75
80	FE65P

NORMAN

Models requiring 14 mm. plugs	F75
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MARINE—INBOARD ENGINES

MAKE AND MODEL

NORSEMAN

Colt, Elf, Z-drive FS50

ONAN

MCK, MKH, MAJ F70
MUK, MGO FS75
MPG FS75

PARSONS

Prawn, Scampi F50
Sea Consul, Sea Zephyr FE50
Models requiring 18 mm. Plugs M30
Sea Zephyr (high compression version) FE75
Sea Urchin FE70

PETTERS

950RMR FE70

PACEMAKER

Models 185, 230 FS75
Model 280 FE70

PALMER

PB, PAL, LH, PH45, PH75, PH120, PH135,
PH150 M30
SK, GW, LLH, ZR, PNR, PH134, 1H160 M30
YT, HH, BH, BHT, BHV, 25 M30
134, 230, 339, 404, 240, 264, 308, 461, V 345
V549—Normal Service FS75
Light Service FS50
PW27 M30
PB-V-215, V8 model F75

R.C.A.

Dolphin Mk. III, IIISA, IV, V FE75
V8 Marine engine FE70

RENAULT

Peche F50
Sporte F75

ROOTES

Alpine, Super Snipe, Imp FE65P

SABENA

Jaguar engine FE55P

STUART-TURNER

1·5 h.p., 4 h.p., 8 h.p., 14 mm. heads F50
1·5 h.p., 4 h.p., 8 h.p., 18 mm. heads M30

SEAFARER

Mk. II, Mk. III FE70

SOLO

2½ h.p. . . . F75

TAUNUS (FORD—Germany)

17M F55P
20MTS F65P

THORNEYCROFT

18 mm. . . . M30

UNIVERSAL

N, NB, GLS M30
AFT, AFTL, Twin Blue Jacket, AM, Blue
Jacket Six, AMS, AMSR, All American Six,
BFA, BFAM, BFAR, BFMAR, Blue Jacket,
Flexifour, BF, CE, CERGC, GCE, GCER, Cruiser-
eight; FA, FAM, FAR, FAMR, Flexifour; HC,
HCS, HCSR, Cruiser Six, LC, LCE, LCER, Sea
Lion Eight, LH, LHS, LHSR, Sea Lion Six,
LSG, LSGM, LSGMR, LSGR, Super Four; WM,
WMG, WMGR, Fisherman M30
BN, BNM, BNR, BNMR, Utility Four M30

MAKE AND MODEL

UNIVERSAL (*continued*)

UJ, UJ4 (after Aug. 1959) FS50
HF, HFR, HFVD FS50
OK, OKR, OKH, OKHR, OKVD, OKHD,
Explorer Six; OL, OLH, OLR, OLHR, OLVD,
OLHD, Master Six (after Aug. 1959) FS50
Z, ZH, ZHR, ZR, ZVD, ZHVD, Super Six,
Comodore, ZS, ZSH, ZSR, ZSHR, ZSVD,
ZSHVD, Super Six Stevedore, Z, Super Six
Express FS75
V8EV, EV15, EV20, EV25, EV30 F50
V8 NKEV, 277 h.p., Big King MT65P
V8 LEV, LEVH, 188 h.p., Little King FS75
Colt, Z drive, Elf FS50
Super Sabre FS55P

VIKING

BV, BVK, BVR F75

VOLKSWAGEN

. . . . F70

VOLVO PENTA

C5, C10, C23 M30
BB30B, MB18B, BB100, V8 F75
BB25, BB70, MB16, MB36, AQ80, AQ90 FS75
AQ95, AQ100 F55P
AQ150 FS55P
B16A, B16C FS50

WEST BEND

Shark-O-Matic FS100

WILLIAMS

Trollabout, Mk. 1, Mk. 2 FS20
Troolking Mk. 3, Trollcruiser Mk. 4, Trollmaster
Mk. 2, Mk. 12 FS50

WORTHAM BLAKE

Fisherboy Mk. 2 F50
Fisherboy Mk. 3 FE70
Classic Fisherboy FE70
Dolphin Sprite FE50

WATERMOTA

18 mm. K1, K2 M50
Ford s.v. engine, Villiers Mk. 15 engine F50
Ford 105E, 109E engine FE70
Triumph TR2, TRF engine F75
Excelsior engine FE70

FARM TRACTORS

ALLIS-CHALMERS

D-19 Petrol FE50
H3 D-10, D-12, D17 FS50
D-17½" reach FE50
WD45 FS55P
B, C, CA, D14, 1B FS50
RC, S, WC, WD, WF FS50

BOLINDER-MUNKTELL

1954-56, MST-121 FS50
1954-59, MST-721 FS50
ST-247 Penta B18C F70

BREDA

8T F75

CASE

AB, S, SC, SO, S1 FS50
18 mm. engines M50

FARM TRACTORS

MAKE AND MODEL

FERGUSON

TEK20, TEP20, Model 35	..	..	..	F50
T.V.O., TED20, TEE20	..	..	..	FE20
TEL20, TER20, Model 35 VO & LO	..	..	..	FE20
TEH20, TEJ20, TEM20, TES20	..	..	..	FE20

FIAT

600, 601, 602	M30
25C, 25R	M30

FORDSON

8N Petrol	F20
8N Kerosene	FS50

FRAZER

Crawler	M30
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GUTBROD

R3, RR4	M60
Terra-Clinton	F50
Terra-T-110	F70

INTERNATIONAL

Model 3414, B44	F50
Cadet	..	..	..	FS50

IRUS-WERKE

U1200	..	..	..	M60
U600, U900, U1200, U300	..	..	..	M50
F1, F2, F3, Solo	..	..	..	F50

JOHN DEERE

3010, 4010 (Petrol), A, AH, AI, AN, ANH, AO, AR, AW, AWH, B, BN, BW, BNH, BWH, G, GH, GN, GW, H, HN, HNH, HWH, 50, 60, 70, 520, 620, 720, 530, 630, 730	..	..	..	M30
Petrol starting engs.: 70D, 80, 720D, 730D, 820, 830, 840	FS50
Series 420, 430, 440, 1010, 2010	F50

KENT

10 h.p. Ford eng.	F50
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KOCH, HANS

HAKO-HAMSTER, BOSS, TRAC	M50
REKORD, BOY	M50

LATIL

..	M30
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MASSEY-HARRIS

780	FE50
750	F50
Austin eng.	FE50
Morris eng.	M50
Ferguson eng.	FE20
20, 20K, 21, 22, 22K, 23, 30, 30K, 33, 44, 44K	..	..	..
55	..	..	..	M30
55K, 81, 82, F124, F140, 162, 202, 203, M290, M330	..	..	..	M30
101, 201 requiring 18 mm. plugs	..	..	..	M60
101, 201 requiring 14 mm. plugs	..	..	..	FS50
101 Junior, 102 Junior & Poney models	..	..	..	M30
101 Super, 102 Super & Model S Power Unit	..	..	..	FS50
Models using Chrysler engine	..	..	..	FS50

NUFFIELD

ETD, ETC, M4, PM4, M3V	..	..	..	FE20
Mini Tractor	..	..	..	FE50

SOLO

1962-64 140 c.c.	..	..	..	F75
70 c.c., 125 c.c., 98 c.c.	..	..	..	F70

VOLVO

T22, T24, T25, T31, T32, T33, T34	..	..	..	F50
C43—T23, D4B—T32	..	..	..	FS50
C4F—T21, T22, D4F—T31	..	..	..	FS20

FARM—GARDEN MACHINERY, LAWN MOWERS, STATIONARY AND MISCELLANEOUS ENGINES

MAKE AND MODEL

AGRICAT

Type B	..	..	..	M30
Type C	FS50

ALLEN

See under engine used.

ALLEN & SIMMONDS

Horticulito Mk. 7	F20
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ALLIS-CHALMERS

Power Units: B15 & W15	FS20
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ASPERA

AH47, AH58	FS75
AH51, Lawson 4 cycle Engine, AH81	FS50
Power 2 cycle Engine	FS50

ATCO

Cylinder Mowers:—				
All 2 Stroke Models except 34 c.c. eng.	..	..	..	M30
34 c.c. engine	..	..	..	F50

All 4 Stroke Models to 1961 (Villiers eng.)	..	..	..	F20
All 4 Stroke Models from 1961 (Suffolk eng.)	FS50

Rotary Mowers:—

W2, W3, W4	F50
W6, W7	F50
W8, W9	FS50

AUTOCULTO

Mk. 5	F50
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AUTOGARDENER

..	F50
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AUTOSCYTHE

1½ h.p., 2½ h.p.	M30
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AVELING BARFORD

See under engine used.

AUSTIN

14 mm. plugs— $\frac{3}{4}$ " reach	FE50
$\frac{1}{2}$ " reach	F50

BACOR

Roller Mower 34 c.c.	F55P
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BAMFORD

Petrol & Paraffin engines	M30
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BARFORD

See under engine used.

BEAVER

Motorscythe	F55P
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B.M.C. (INDUSTRIAL)

4 Litre	FE50
1500 c.c. to 1958	FE50
1500 c.c. 1959 on	FE70

BOLENS

Garden Tillers:—

1941-42 models 6B, 8B, 9A, 9B, 10B, 11A, 12A	FS75
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Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

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Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm. plugs M60

Other models, 18 mm.

FARM—GARDEN MACHINERY, etc.

MAKE AND MODEL

BROOMWADE

Compressor—14 mm. plug	F50
18 mm. plug	M30

B.S.A.

2-stroke 80 c.c.	F50
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O.H.V. engines

120 c.c., 200 c.c.	F50
250 c.c. Twin	F75

Calor Gas

120 c.c., 220 c.c.	FE70
320 c.c., 420 c.c.	M60

Petrol

120 c.c., 150 c.c., 220 c.c. ..	..	..	..	FE50
119 c.c. ..	..	..	..	FE50
50 c.c., 65 c.c., 80 c.c., 90 c.c. ..	..	..	..	F50
Chore Horse ..	..	..	..	FS50

BUDA

4B-153, 4B-182, 6B-273, M-707, M-766 ..	FS20
6B-230 (Petrol) ..	FS20
GF-6, GF638, GL-6, K Series 325, 369, 381, 393, 428, L-468, L-525 (Petrol), H Series 173, 119, 205, 217, 260, 298, 326, HP Series 205, 217, 234, 360, 298, 326, 351; J-214 ..	M30
LO-468, LO-525 ..	FS75
2MO-323, 3MO-485, 4MO-645, 6MO-779, 6MO-893, 6MO-672, 6MO-970, 8MO-1125, 8MO-1290, 8MOS-1290 ..	M30

CATCHPOLE

See under engine used.

CASE COMBINES

K & M Series ..	..	..	..	M30
V Series, SP-9, and w/SE Eng. ..	..	..	..	FS50
SP-12 and DE Eng. 18 mm. heads ..	..	..	..	M30
Models: 75, 77, 88, 100, 120, 150, 301, 302, 600, 800, 1010 ..	..	..	..	M30
Model 1000 ..	..	..	..	FS75
Balers NL, NCM, NC, MT & NT, 130, 135, 140, 160, 177, 200 ..	..	..	..	M30
NAP-2 ..	..	..	..	FS50
E. Elevator & C. Forage Harvester ..	..	..	..	M30
Windrowers 820, 840, 850 ..	..	..	..	M30

CHRYSLER

8-cylinder engines

IND12A, IND19B, IND52 ..	..	..	..	FS50
IND18A, IND19A, IND20A ..	..	..	..	FS20
IND23A, IND24A ..	..	..	..	FE20
IND53 ..	..	..	..	FE50
IND54 ..	..	..	..	FS75
IND56, IND56A ..	..	..	..	FE50
H318, HB318, HC318, HT318 ..	..	..	..	FS55P
H361, H383, H413 ..	..	..	..	FS55P
HB413, HC413, HT413 ..	..	..	..	FE70

6-cylinder engines:

IND5A, IND6A, IND7A, IND8A, IND13, IND13A, IND14, IND14A, IND15, IND15A, IND16A, IND30, IND31, IND32, IND33, IND38, IND908A, IND931—Normal Service..	..	..	..	FS20
Heavy Service ..	..	..	..	FS50
H170, HB170, HC170, H225, HB225, HC225 ..	..	..	..
Normal Service..	..	..	..	FE70
Light Service ..	..	..	..	FE45P

CLINTON

2-cycle models ..	..	..	..	FS20
D35, D55, D65 and other 4-cycle models ..	..	..	..	FS50
100, 190, 400, 401, 404–409, 411, 414, 415, 426, 429, 435, 1600, 1690, 2100, 2190, 2500, 2590, 2790, 3100, 3190, 4100, 4190 ..	..	..	..	F50
VS41 ..	..	..	..	FS50

MAKE AND MODEL

COVENTRY CLIMAX

F, FF, FP ..	..	..	..	F50
FW, FSM, SM, Z, FTD, TSM ..	..	..	..	FE50
FWA, FWB ..	..	..	..	FE80
FWE, Imp ..	..	..	..	FE75
FWMP ..	..	..	..	FE70

CONVEYANCER

Industrial trucks:—				
G4—24, 16 h.p. Morris engine ..	..	..	..	F50
TC6 Standard engine ..	..	..	..	F50
Other models, 18 mm. plug ..	..	..	..	M50
Models 1, 1B, 11, 1V, G4—15, G5—16 ..	..	..	..	FE50

COVENTRY VICTOR

Industrial engines:—				
Midget models MA1, MW1, MA2, MW2 ..	..	..	..	F50
'N Type', models AN2, WN2, AN3, WN3, AN4, WN4 ..	..	..	..	F50
'Neptune', AC2, WC2, AC3, WC3, AC4, WC4 ..	..	..	..	F50
Models using 18 mm. plug ..	..	..	..	M30
K Type ..	..	..	..	FE80

DANARM

See Villiers & J.A.P. Engines				
Own Engine	FS50

DENNIS

Lawnmower 14 mm.	F50
Lawnmower 18 mm.	M30

DISSTON CHAIN SAWS

..	FS75
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DORMAN

4J0RX, 4JUL	M30
4MRM, 5MRWM, etc.	M30

DOUGLAS

450, 540 and 630 c.c. Single Cylinder s.v. (Alloy Heads)	FE50
450, 540 and 630 c.c. Single Cylinder s.v. (Iron Heads) ..	..	..	..	F50
Industrial trucks:— 600 c.c. s.v. twin ..	..	..	..	F20
Stamo 30, 50, 75, 76 ..	..	..	..	F75

FICHTEL & SACHS

Stamo 100, 161, 201, 281, 400, 100/3 ..	..	..	..	M60
Stamo 100, 161, 201, 281, 400, 100/3 ..	..	..	..	M60

FORD

Models: 91, 120, 134, 172 ..	..	..	..	F50
144, 170 ..	..	..	..	MT45P

HIRST

Hand truck, Power Pak, B.S.A. Engine ..	..	..	..	FE50
Works truck, Ford engine ..	..	..	..	F50
Forager '10' and '20' ..	..	..	..	F50

HOME-LITE

Lighting Plants: 8, 15, 20, 23, 24, 32, 34, 35	FS75
Motor Mowers: 'Yard Trac'	FS50
M26	FS75

HONDA

G20, G30, G45	F75
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ILO

L77, RM77, 1958–64	F70
LH60, 1962–64	F20
L101, L151, L152, L252, L375, 1958–64	M60
FP50, G50, G50 Piano, 1963–64 ..	..	..	..	F70
V50 Piano, 2,5 PS, 1962–64 ..	..	..	..	F80

FARM—GARDEN MACHINERY, etc.

MAKE AND MODEL

ILO (continued)

M50, 1,8 3,6 PS, 1960–62 MM25, MM40	..	F75
TS 50 4,3 PS, 1960–62	..	F80
R49 1,3 PS; Ilomatic 1–2,7 PS 1962–64	..	F75

INTERNATIONAL

Power Units:

U1, 1U4, 1U6, U2, U2-A, U2-4, U6	M50
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J.A.P.

Models 2A, 2S, 4F, 4/2, 4/3, 5, 6 and 55, 34 c.c. 80 c.c., 125 c.c. petrol engines from 1950	..	F50
Before 1950	..	FE50
Models on previous page using paraffin	..	F75
Before 1950	..	FE75
Other models using 18 mm. plugs	..	M50
Model 0, 34 c.c.	..	F55P
Model 34, 34 c.c.	..	F55P
Model 89, 80 c.c.	..	F55P
Model 80, Type 2, 80 c.c.	..	F55P
Model C80B, 80 c.c.	..	F55P
Model RS80, 80 c.c.	..	F55P
Model S80, Type 2HC, 80 c.c.	..	F55P
Model S80, Type 33, 80 c.c.	..	F55P
Model S80, Type 35, 80 c.c.	..	F55P
Model 16V, 160 c.c.	..	F55P
Model 16H, 160 c.c.	..	F55P
Model 2S, 98 c.c.	..	F50
Model 2SB, 98 c.c.	..	F50
Model 3, 150 c.c.	..	F50
Model 38, 150 c.c.	..	F50
Model 4F, 186 c.c.	..	F50
Model 4/2, 245 c.c.	..	F50
Model 4/3, 288 c.c.	..	F50
Model 5, 412 c.c.	..	F50
150 c.c. Cultivator	..	F75
550 c.c. OHV	..	FE70
2 Stroke engines	..	F50 or F55P
4 Stroke engines	..	F50
Also see Villiers		

JO-BU

Senior, Junior, Scrub Saw	..	..	F20
Viking, "93" Super	..	..	F50
"93", "D94" ..	..	..	F70

JOHN DEERE

Combines 11A, 12A, 25, 30, 40, 45, 18 mm. head	M30
14 mm. head Hercules eng.	..
14 mm. head, Own eng.	..
55 using Hercules eng., 14 mm. heads	..
using Own eng. (Petrol)	..
65 using Hercules eng.	..
using Own eng.	..
95 ..	..
Forage Harvester 8, 12, 62, 64, 72, 74	..
Beet Harvesters 200, 200A ..	..
Balers 14T, 114, 116, 214, 323:	
Using Wisconsin eng.	..
Using Continental eng.	..
Using Own eng.	..
Cotton Picker, Model 8 ..	..
Model 99 (Petrol) ..	..
Windrowers—Wisconsin eng.	..
Own eng.	..
105 Combine ..	..

JOHNSON

Utilimotor	..	..	M50
1½" Pump Unit, model 2, J.A.P. eng.	..	..	F50
1½" Pump Unit, model 2A, J.A.P. eng	..	..	FE50
2" and 3" Pump Unit	..	..	M50
4" Pump Unit (Ford engine) ..	..	..	F50
Iron Horse ..	..	..	FS50
3" Pump model 3L, Mud Pump, Lister eng.	..	..	M30
Electrical unit ..	..	..	FS70

MAKE AND MODEL

K.E.F.

See under engine used.

LANDMASTER

See under engine used.

LAWNBOY

Mower B & S engine	FS50
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LISTER

G1, GK1, G2, GK2 and F, Types A 3½ h.p., B 5½ h.p., D 1½ h.p.	M30
Trucks using 18 mm. plugs (J.A.P. eng.)	M30
Trucks using 14 mm. plugs (J.A.P. eng.) ..	..	..	..	F20
Models G1, GK2, G2, ACL, C3 ..	..	..	..	M50
Models ABL, ACL, AFL, AGL, AHL, and all other models using 18 mm. plugs ..	..	..	..	M30
Monarch Pump ..	..	..	..	F20
Elevator (B & S Eng.), Mounthill Geared Eng.	..	..	..	FS50
Shearer ..	..	..	..	F50

LLOYD

See under engine used.

MASSEY-FERGUSON

S.P. combines 20, 21, 26, 27, Super 26, Super 27	..	..	..	..	FS50
60, 70, 80, 90 ..	..	..	..	..	FS50
Combine 890, Chrysler engine ..	..	..	..	..	FS50
S.P. Corn Picker & Clipper combines ..	..	..	..	..	M30
Combine 222 ..	..	..	..	..	M30
Combine 750 ..	..	..	..	..	FE20
Baler 701 (Standard Motors V.O. engine) ..	..	..	..	..	FE20
Baler (4-cyl. Coventry Victor engine) ..	..	..	..	..	F50
Combine 1·5 & 4 litre Austin engine ..	..	..	..	..	FE50

MEADOWS

12 h.p. ..	..	..	..	..	M30
22 h.p., 12/40 ..	..	..	..	..	F50
30/100	M30
100 h.p.	M30

MORRIS

MEB/4A, MEB/5A	FE20
16 h.p.	F50
T.V.O.	F20

PEGSON

Rammer	M30
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PENTA

Portable Compressor	M50
Models using 18 mm. plug	M30
Models using 14 mm. plug	F50

Engines and Compressors:

A2, A4, C, DC6, E, F, K11, K21, L2, L4, L6 ..	..	..	..	..	M60
F1, Portable Compressor ..	..	..	..	..	M50
Other models requiring 18 mm. plugs	M30
Models requiring 14 mm. plugs	F50

PETTER

1948-on	FE50
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PINNOCK

Rotary Mowers	FS50
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QUALCAST MOWERS

12" Powered Panther 34 c.c.	F55P
18" Rotacut	F55P
16" Commando	F55P
14" Royal Blade ..	..	..	..	..	F55P
¾" Reach Plug models ..	..	..	..	..	FS50

Also see under Suffolk & engine used.

FARM—GARDEN MACHINERY, etc.

MAKE AND MODEL

RANGER

16" and 24" Easimow M30

RANSOMES (SIMMS & JEFFRIES)

M.G5, 6, 7 M30

Also see under engine used.

RENAULT

1950–51, R3042, R3043 F50

1957–61, E30 F50

1963, Super 7 F70

ROLLS-ROYCE

Nat. Gas Engine $\frac{3}{4}$ " reach FE30
B40, B60, B80 FE50

ROTARY HOE

See under engine used.

ROYAL ENFIELD MOWER

14 mm. plug F20

18 mm. plug M30

98 c.c. to 1953, 148 c.c. and 225 c.c. T/S models M30

98 c.c. models, 1953–on F55P

125 c.c. T/S model F55P

SCAMMELL

Trailer Pump, 14 mm. plug FS75

Trailer Pump, 18 mm. plug M50

Wheelbarrow Fire Pump M30

SCOTT

98 c.c. single-cylinder F20

300 c.c. single-cylinder M30

SHAY (ROTOSCYTHE)

All 2 Stroke engines F50 or F55P

Also see under engine used.

SOLO

Motor Mower, Sprayer Port 70, Chain Saw 626 F75

STIHL

Chain Saw F55P

STUART-TURNER

Lighting Plants & Industrial Engines:—

Using 18 mm. plugs M30

Using 14 mm. plugs F50

SUFFOLK

Lawnmower Pony F20

Also see under Qualcast & engine used.

SUNBEAM

Hedge Trimmer F50

Sheepshearer F50

TEAGLE

49 c.c. Hedgecutter FS20

Also see under engine used.

TANGYE

Engines M60

TELES

See under engine used.

VALOR

See under engine used.

MAKE AND MODEL

VICTA

See under engine used.

VILLIERS

Marvil, 11C, 25C, 28C, Midget Mk. I M30

Mk. 15, 15/2, 15HS, 50 c.c., 75 c.c., 150 c.c. F50

507H-1, 515V, 515H, 4/44, J8, J34, L34 F50

2 Stroke Engines:—

Midget 2, 3, 4, 5 M30

7F/1, 8F/1, 8F/2, 8F/3 M30

11C, 25A, 25C, 26A, 27B, 28B, 28C M30

4 Stroke Engines:—

7, 7/1, 9, 10, 10/1, 10/2 F50

12, 12/1, 12/2, 15, 15/2 F50

20, 25, 40 F50

VINCENT

Power Units F50

VOLKSWAGEN

1192 c.c. F70

1131 c.c. F50

WACKER

Road Rammer F75

WARSOP

Road Breaker M50

Road Drill M30

Road Rammer M30

WAUKESHA

6BA, 6BL, 6BM, 6BK, 6BZ M50

6BZ 14 mm. Heads FS50

Severe Service FS75

CFR (Fuel Testing) M30

6EK, 6EL M50

FC 14 mm. heads FS50

18 mm. heads M30

Severe Service FS75

FCL, FCS 18 mm. heads M50

14 mm. heads FS50

Severe Service FS75

FL, FLJ, FS (18 mm.) M50

6GAK, 6GAL, 130GL, 130GS M30

135GKB, 135GSB, 135G, 140G, 141G, 145G, 135GK, 135GZ F70

140GK, 145GK, 140CZ, 145CZ, 18 mm. heads M30

140GK, 145GK, 140CZ, 145CZ, 14 mm. heads F70

140GZB, 140GKB, 145GZB, 145GKB, 14 mm. heads F70

140GS, 145GS, 180–GKB, 195–GKA, LRORB M30

180GL, 185GL, 190GL, 190GLB, WAKC M50

185GLB, 195GL, 195G, 195GK, 180GS, 185GS M50

H–540, H–570, H–844, H–884 FS75

ICK 18 mm. heads M50

14 mm. heads F70

6LRO 18 mm. heads M50

6MK, 6ML, 6MS, 6MZ Series 61000: 18 mm. heads M50

6MKR, 6MZA, 6MZR M50

6MZA 14 mm. heads FS50

6NK, 6NKR M50

6QB, 6QL, 6RB, 6GRBR, 6SRKR, 18 mm. heads M50

6SRKR 14 mm. heads FS50

6SRL before eng. No. 268868 M50

6SRS 18 mm. heads M50

6TL, 6TS, VLRO, VRZ, VRZG, 6WAK, 6WAL M50

6WAK 14 mm. heads FS50

6ZKA, 6–90, 6–110, 6–125 M50

WEBB

See under engine used.

WOLSELEY

See under engine used.

GO-KARTS

MAKE AND MODEL

ASPERA

AH58, AH81 FS75

BRIGGS & STRATTEN

6BS FS75

CLINTON

A40, E65, A400, A490, GK590, 990 . . . FS50

GARELLI

38-49 c.c.m. F75

KOMET

K77 Magnum on request

LAUSON

H25 FS75

LAVALETTE

. F80

LIBERIA

. FS75

MC CULLOCH
MC6, MC10 FS75

PARILLA

BA13 on request

PEUGEOT

BB F80

MAKE AND MODEL

POWER PRODUCTS

AH51, AH82 FS100

Super AH58, Type 1297, 1298, 1300, 1301 . . . F100

AH58, Type 1290, 1291, 1292, 1293 . . . F100

AH58 FS100

AH61 type 1299 FS75

RUMI

100, 125 c.c. TT FE80

SOLO FS100

STIHL F80

VAP F80

VILLIERS

6F, 2L, 3L F80

WEST BEND

Series 390 F70

Series 510, 580, 645, 700 FS75

WISCONSIN FS75

YDRAL F75

ZURCHER F75

Discontinued Plugs and their Replacements

Discontinued	-	Replacement
DF50	-	F50
DF75	-	F75
DF80	-	F80
DFE50	-	FE50
DFE75	-	FE75
FA50	-	F50
FA50H	-	F50
FA70	-	F70
F50H	-	F50
F75H	-	F75
FE30	-	FE20
FE70A	-	FE70
FE75H	-	FE75
FE100 3pt	-	FE100
F80 3pt	-	F80

Discontinued	-	Replacement
F100 3pt	-	F100
FE50H	-	FE50
FS70	-	FS50
FS75H	-	FS75
FS100H	-	FS100
TENL50	-	T70
TFS20	-	FS20
TFS30	-	FS30
TFS50	-	FS50
M30H	-	M30
M60H	-	M60
TENL30	-	T30
TENL70	-	T70
TENL100	-	T90

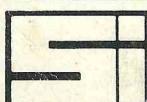
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*F65P	L87Y	AE32	HN
F75	L7, L85, L86	AE3	HN
FE50	N8	AG5	CLNH
*FE55P	N11Y, UN12Y	AG42	CLNY
FE70	N6, N5, N84	AG3, AG4	HBLN
FE75	N4	AG2	HLN
*FE65P	N9Y, N10Y	AG32	HLNY
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