

SMITHS

K.L.G.

PLUGS



FOR MOTOR CYCLES

HOW TO MAKE THE BEST USE OF THIS BOOKLET

THIS booklet gives you a complete K.L.G. plug recommendation list for motor cycle engines together with hints on how to maintain K.L.G. Plugs so that they will give thousands of miles of faultless service.

No engine can operate efficiently on the wrong type of plug. No plug can give of its best unless it is maintained in good condition. And remember: no plug—however good—can last for ever. Regular replacement with the correct type of K.L.G.—The fastest Plug on Earth—will improve the performance of every motor cycle and thereby save petrol.

Choosing the Right Plug

Selecting a plug would be a simple matter if size were the only consideration. Unfortunately the running temperature, age and general condition of the engine play an equally big part. A cool running engine may not develop sufficient heat to burn off the oil which will be deposited on a normal type of plug, in which case the plug will cease to function. Cool engines, therefore, may require plugs with a lower heat value—i.e., lower number than the type recommended. Similarly, a hot-running engine may overheat the plugs and cause pre-ignition. In this case, fit a plug with a higher heat value and the trouble will be cured.

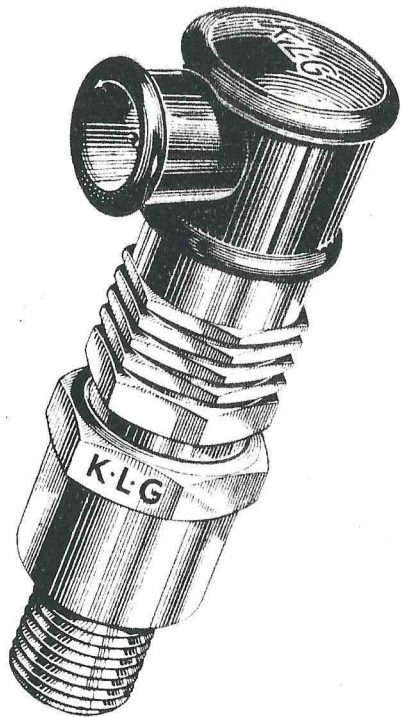
The recommendation list gives the correct plug for normal engine conditions. The K.L.G. Heat Range Chart is reproduced on page 30 for your guidance in cases where engine conditions are not normal.

K.L.G. WATERTIGHT PLUGS

Here is a plug which has been produced especially for motor cycle engines. K.L.G.'s immense experience in the making of screened plugs for the Royal Air Force and American Air Force, has enabled them to make the perfect Watertight Plug. Following aircraft practice, these new plugs have, as an extension to the gland nut a metal sleeve, designed to make a tight snap-on fit with a specially toughened, moulded cap.

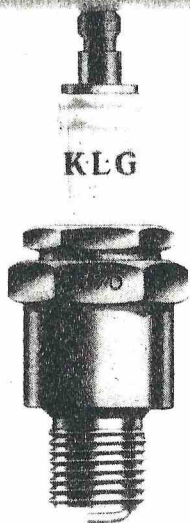
The result is a complete Plug which is waterproof in the fullest sense of the word. Watertight in fact. Dustproof, oilproof, and—with its steel sleeve protecting the insulator—virtually damageproof. A plug that does more than even a K.L.G. has done before—takes in its stride without even a momentary miss, all that the clerk of the weather or a local trials organizer can devise.

The correct type of Watertight Plug for your engine is given in the Recommendation List.



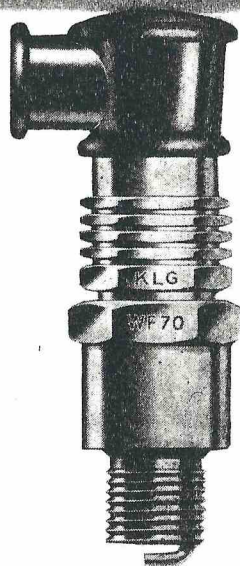
**Still fastest—
now Watertight**

K.L.G. TYPE F.70



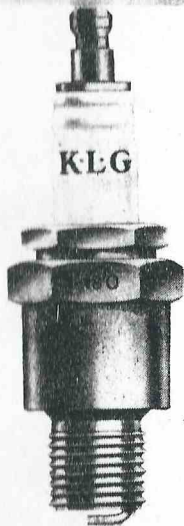
14 m.m. diameter thread, 12.5 m.m. reach. Fitted as original equipment on E.S.2 and Model 18 Norton and 350 c.c. M.A.C. Velocette. Extra long reach version (type FE.70) with a thread reach of 18 m.m. is also available, and it is original equipment on the 16H and Big 4 Norton.

K.L.G. TYPE WF.70



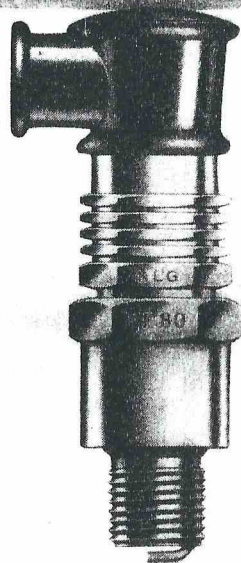
This is the Watertight version of the F.70 and is suitable for all engines for which the F.70 is normally recommended. 14 m.m. diameter thread and 12.5 m.m. reach. Long reach equivalent is type WFE.70.

K.L.G. TYPE F.80



14 m.m. diameter thread, 12.5 m.m. reach.
A "sports" type plug for engines which
require a higher heat resisting model than
the F.70. Fitted as original equipment by
the makers of A.J.S., Matchless and Triumph.
Extra long reach version of this is type FE.80.

K.L.G. TYPE WF.80



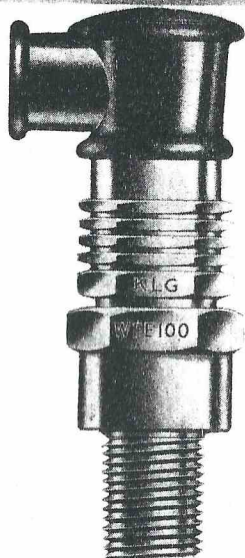
14 m.m. diameter thread, 12.5 m.m. reach.
The Watertight version of the F.80. Long
reach equivalent is type WFE.80, which is
original equipment on the Model "T"
Norton.

K.L.G. TYPE FE.100



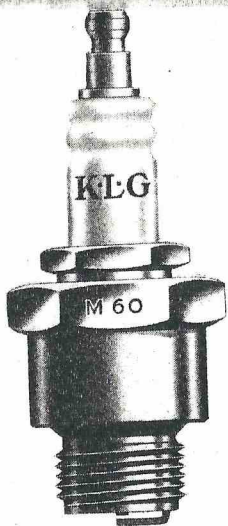
14 m.m. diameter thread, 18 m.m. reach. A long reach "super sports" plug with a high resistance to internal gas heat. This plug is original equipment on the "International" and "Manx" Nortons and the Mk. V. K.T.T. Velocette. The short reach (12.5 m.m.) version of this plug is type F.100.

K.L.G. TYPE WFE.100



14 m.m. diameter thread, 18 m.m. reach. The Watertight version of the FE.100. Short reach equivalent is type WF.100.

K.L.G. TYPE M.60



18 m.m. diameter thread, 12.5 m.m. reach. The model recommended for the majority of motor cycle engines requiring an 18 m.m. plug. Long reach equivalent is type ML.60. The "sports" version with a higher heat resistance is type M.80.

The Watertight Version is type WM.60.

Recommendation List

Make and Year of Model	K.L.G. Plug Type	Water-tight Equivalent
ABERDALE	F70	WF70
A.B.J.	F70	WF70
ACE	M50	WM50
A.J.S.	F80	WF80
350 c.c. Models 16 M, 16 MS.	FE80	WFE80
350 c.c. Competition Model 16-MC	F80	WF80
500 c.c. Models 18, 18 S,	FE80	WFE80
500 c.c. Competition Model 18 C	FE80	WFE80
500 c.c. Twin, Model 20	FE80	WFE80
350 c.c. o.h.c. Model 7R—See special K.L.G. leaflet on racing plug recommendations	F70	WF70
Other o.h.v. models requiring 14 mm.	M60	WM60
Other o.h.v. models requiring 18 mm.	F50	WF50
s.v. models requiring 14 mm. plugs	M50	WM50
s.v. models requiring 18 mm. plugs		
A.J.W.		
"Speedfox" 499 c.c. J.A.P.	M80	WM80
"Greyfox" 494 c.c. J.A.P. twin	M60	WM60
AMBASSADOR		
All models (197 c.c. Villiers engine)	F70	WF70
ANZANI		
o.h.v. models	M60	WM60
s.v. models	M50	WM50
ARIEL		
Model 4G "Square Four"	F50	WF50
Models KH and KG 500 c.c. Twin "Red Hunter"	F70	WF70
Models VH "Red Hunter" 500 c.c. VG	F70	WF70
Model VCH 500 c.c. Competition	F70	WF70
Models NH "Red Hunter," NG, 350 c.c.	F70	WF70
Model VB, 600 c.c. s.v.	F50	WF50
Other models requiring 14 mm. plugs	F70	WF70
Other models requiring 18 mm. plugs	M60	WM60

Make and Year of Model

	K.L.G. Plug Type	Water- tight Equiva- lent		
BAUGHAN				
o.h.v. models	M60	WM60		
s.v. models	M50	WM50		
BENELLI				
250 c.c., Sports	M80	WM80		
500 c.c., Tourismo	M60	WM60		
BIANCHI				
250 c.c., Normal	F70	WF70		
250 c.c., Sports NE 2	F80	WF80		
500 c.c., Normal	M60	WM60		
500 c.c., Sports	M80	WM80		
BLACKBURNE				
Sports Ulster, 500 c.c. and 250 c.c. ...	F70	WF70		
Other o.h.v. models	M60	WM60		
s.v. models	M50	WM50		
B.M.W.				
Requiring 14 mm. plugs	F70	WF70		
o.h.v. models requiring 18 mm. plugs...	M60	WM60		
s.v. models requiring 18 mm. plugs ...	M50	WM50		
BOND				
Villiers 122 c.c. engines	F70	WF70		
BOWN				
Autocycle (98 c.c. Villiers)	F70	WF70		
BRIGGS & STRATTON				
18 mm. heads	M50	WM50		
14 mm. heads	F570	—		
BROUGH				
S.S. 80, 1939 onwards	F70	WF70		
S.S. 80, prior to 1939	M60	WM60		
S.S. 100, 1934 and onwards	FE70	WFE70		
S.S. 100, prior to 1934	M60	WM60		
680 c.c., o.h.v., 1936	F50	WF50		
B.S.A.				
125 c.c. Model D.1 "Bantam"	F70	WF70		
149 c.c. Models X34-0, X35-0, X36-0, X37-0	M60	WM60		
249 c.c. Models B33 Blue Star, B33-3, B34-2, B34-3, B35-2, B35-3, B36-2, B36-2, B18	M60	WM60		
250 c.c. Models B20, B21, C10, s.v. ...	F50	WF50		
250 c.c. Model C11 o.h.v.	F70	WF70		
349 c.c. Models R34-4, R35-4, R36-4, R36-19, L32-3, L32-5	M60	WM60		
B.S.A.—continued				
349 c.c. Models B23, B25, B26, B36-20 Blue Star, R34-5, R34-6, R35-5, B35-17, R36-17	F70 F50 F70 FE70	WF70 WF50 WF70 WFE70		
349 c.c. Model M19				
350 c.c. Models B31, B32				
350 c.c. Model B32 Gold Star				
498 c.c. Models J12, J34-11, J35-12, J35-15, J36-12, J36-15, S31-9, S33-7, W33-7, W34-8, W34-9, Blue Star, W35-7, W35-8			M60	WM60
494 c.c. Models Q36-7, Q36-21, Blue Star	F70 F70 FE70 F50	WF70 WF70 WFE70 WF50		
500 c.c., o.h.v., Models B33, B34, M33 500 c.c., o.h.v., Model B34, Gold Star...				
500 c.c., s.v., Model M20				
500 c.c., o.h.v., Model A7, Twin and Star Twin	F70 F50	WF70 WF50		
600 c.c., s.v., Model M21				
650 c.c., o.h.v., Model A10, Twin Golden Flash	F70	WF70		
CALTHORPE				
350 c.c. and 500 c.c., 1936-8	F70 M50 ML60 M60	WF70 WM50 WML60 WM60		
Ivory Minor, P.L.				
Ivory, o.h.v.				
Other models taking 18 mm. plugs ...				
CLEVELAND			M50	WM50
CONDOR				
s.v. models requiring 18 mm. plugs ...	M50	WM50		
o.h.v. models requiring 18 mm. plugs...	M60	WM60		
s.v. models requiring 14 mm. plugs ...	F50	WF50		
o.h.v. models requiring 14 mm. plugs ..	F70	WF70		
CORGI				
98 c.c. Spryt engine	FE70	WFE70		
COVENTRY EAGLE				
N25, N35, N50	M60	WM60		
Other models—see J.A.P., etc.				
COVENTRY VICTOR				
Up to 1939	M50 F50	WM50 WF50		
1946 onwards				
CSEPEL				
100 c.c. model	F50	WF50		
125 c.c. model	F70	WF70		
CUSHMAN				
18 mm. heads	M50	WM50		
14 mm. heads	F50	WF50		

Make and Year of Model

CYC-AUTO

98 c.c. Scott engines	F70	WF70
98 c.c. Villiers engines, 14 mm. ...	F70	WF70
98 c.c. Villiers engines, 18 mm., short reach	M50	WM50
98 c.c. Villiers requiring 18 mm. plugs, long reach	ML50	—

C.Z.

98 c.c. models	M50	WM50
125 c.c. models	F70	WF70
175 c.c. models requiring 14 mm. plugs ...	F50	WF50
175 c.c. models requiring 18 mm. plugs ...	M50	WM50
250 c.c. models requiring 14 mm. plugs ...	F70	WF70
250 c.c. models requiring 18 mm. plugs ...	M50	WM50
350 c.c. models	F70	WF70
500 c.c. models	F70	WF70

DELLA FERRERA

M60 WM60

D.K.W.

500 c.c., Twin Two-stroke, 1938 onwards and 350 c.c., SB.350	F70	WF70
500 c.c., Twin Two-stroke, prior to 1938 ...	M60	WM60
EB.300 Super Sports	M80	WM80

DOT

Villiers 197 c.c. engines	F70	WF70
----------------------------------	-----	------

DOUGLAS

Bantam 5X, 5X1 (Villiers engines) ...	ML30	WML30
250 c.c., Golden Star Y	F50	WF50
348 c.c., Sports	F70	WF70
350 c.c. models, Mk. III, Plus 80, Plus 90 ...	F70	WF70
500 c.c., o.h.v. models	M60	WM60
600 c.c., o.h.v. models	F70	WF70
600 c.c., s.v. models	M60	WM60
Vespa Scooter	F50	WF50

E.M.C.

346 c.c., 2-stroke	FE70	WFE70
---------------------------	------	-------

EVINRUDE

Speed Bike, 1932-7	M60	WM60
---------------------------	-----	------

EXCELSIOR (BRITISH)

125 c.c. models	ML50	—
150 c.c. Pioneer Model	ML50	—
250 c.c. Meritor Model	ML50	—
250 c.c. Manxman Models	FE70	WFE70
350 c.c. Manxman Models	F70	WF70
500 c.c. Manxman Models	F70	WF70

EXCELSIOR (British)—continued

98 c.c. Autobyk de Luxe and Super Models	FE70	WFE70
122 c.c. Universal Models (Villiers engines) requiring 18 mm. plugs ...	M60	WM60
122 c.c. Universal Models (Villiers engines) requiring 14 mm. plugs ...	F70	WF70
197 c.c. Roadmaster Models (Villiers engines) requiring 18 mm. plugs ...	ML60	WML60
197 c.c. Roadmaster Models (Villiers engines) requiring 14 mm. plugs ...	F80	WF80
244 c.c. Talisman Twin Model	FE50	—
EXCELSIOR (AMERICAN)	M50	WM50

F.N.

o.h.v. models requiring 18 mm. plugs ...	M60	WM60
o.h.v. models requiring 14 mm. plugs ...	F70	WF70
s.v. models requiring 18 mm. plugs ...	M50	WM50
s.v. models requiring 14 mm. plugs ...	F50	WF50
Tricar	F50	WF50

FRANCIS BARNETT

Stag 44, Red Stag F/46 and G46 Models	F70	WF70
Powerbike (own engine) requiring 18 mm. plugs	ML30	WML30
Powerbike (own engine) requiring 14 mm. plugs	FE30	—
Powerbike (98 c.c. Villiers) requiring 18 mm. plugs, short reach	M50	WM50
Powerbike (98 c.c. Villiers) requiring 18 mm. plugs, long reach	ML50	—
Powerbike (98 c.c. Villiers) requiring 14 mm. plugs	F70	WF70
Merlin (122 c.c. Villiers) requiring 18 mm. plugs	M60	WM60
Merlin (122 c.c. Villiers) requiring 14 mm. plugs	F70	WF70
Falcon (197 c.c. Villiers) requiring 18 mm. plugs	ML60	WML60
Falcon (197 c.c. Villiers) requiring 14 mm. plugs	F80	WF80

GILERA

498 c.c. s.v. and 498 c.c. o.h.v., 1933-4 ...	F70	WF70
500 c.c., 350 c.c., 174 c.c., 1934	M60	WM60
Saturno—Tourismo, 500 c.c.	F80	WF80
Saturno—Sports, 500 c.c.	F80	WF80
Nettuno—Tourismo, 250 c.c.	F80	WF80
Nettuno—Sports, 250 c.c.	F80	WF80
Mercurio, 500 c.c.	M80	WM80
Mercurio, 600 c.c.	M80	WM80

GILLET

100, 125 and 250 c.c., Two-stroke ...	F50	WF50
250 c.c., o.h.v.	F70	WF70
175-350 c.c., Two-stroke	M50	WM50

Make and Year of Model

	K.L.G. Plug Type	Water- tight Equiva- lent
GILLET—continued		
350-500 c.c., s.v.	M60	WM60
350-500 c.c., o.h.v.	M60	WM60
14 mm. diameter o.h.v.	F70	WF70
14 mm. diameter s.v.	F50	WF50
GUZZI		
500 c.c., Sports 15, 1933-34	M80	WM80
250 c.c. model	M30	WM80
Condor, 500 c.c.	F80	WF80
Albatross, 250 c.c.	F80	WF80
Airone, 250 c.c.	M60	WM60
GTV, 500 c.c.	M60	WM60
GTS	M60	WM60
Ardetta	M60	WM60
Egretta	M60	WM60
Motolelario R.	M80	WM80
Motocario R.	M80	WM80
HAMLET	M30	WM30
HARLEY-DAVIDSON		
989 c.c. and 1208 c.c.	A30	—
Model WLDR	M80	WM80
Other models	M50	WM50
HENDERSON		
H.R.D. —See Vincent H.R.D.	M50	WM50
H.U.C.		
197 c.c. Villiers	F80	WF80
HUSQVARNA		
120 c.c. Model 24	M60	WM60
345 c.c. Models TVA, 355V	M60	WM60
491 c.c. Sports Model	M80	WM80
Other models	M50	WM50
INDIAN		
500 c.c. Scout, 37 ; Scout Super, 1265 c.c.	M60	WM60
Other models taking 18 mm. plugs	M50	WM50
Models taking 14 mm. plugs	F50	WF50
4 cylinder, 1938 model	F70	WF70
INVACAR		
Models requiring 18 mm. plugs	M60	WM60
Models requiring 14 mm. plugs	F80	WF80
JAMES		
4-stroke Models, o.h.v.	M60	WM60
4-stroke Models, s.v.	M50	WM50
Superlux Autocycle (98 c.c. Villiers)	M50	WM50
requiring 18 mm. plugs	M50	WM50
Superlux Autocycle (98 c.c. Villiers)	F70	WF70
requiring 14 mm. plugs	F70	WF70

JAMES—continued

Comet Models (98 c.c. Villiers) requiring 18 mm. plugs, short reach	M50	WM50
Comet Models (98 c.c. Villiers) requiring 18 mm. plugs, long reach	ML50	—
Comet Models (98 c.c. Villiers) requiring 14 mm. plugs	F70	WF70
Cadet Models (122 c.c. Villiers) requiring 18 mm. plugs	M60	WM60
Cadet Models (122 c.c. Villiers) requiring 14 mm. plugs	F70	WF70
Captain Models (197 c.c. Villiers) requiring 18 mm. plugs	ML60	WML60
Captain Models (197 c.c. Villiers) requiring 14 mm. plugs	F80	WF80
Competition Model (122 c.c. Villiers) ...	F80	WF80
Competition Model (197 c.c. Villiers) ...	F80	WF80
J.A.P.		
125 c.c., Two-stroke	F50	WF50
500 c.c. Vertical Twin	FE70	WFE70
Models 2A, 4C, 6 and 55	FE50	WFE50
Model 5	FE20	—
Model 4/2	M60	WM60
Other o.h.v. models requiring 14 mm. plugs	F70	WF70
Other o.h.v. models requiring 18 mm. plugs	M60	WM60
Other s.v. models requiring 14 mm. plugs	F50	WF50
Other s.v. models requiring 18 mm. plugs	M50	WM50
JAWA		
99 c.c. Robot Model	F50	WF50
175 c.c. Model	M60	WM60
250 c.c. Model	F80	WF80
350 c.c. Twin Model	F80	WF80
JEANETTE		
120 c.c. Scooter	F50	WF50
J.M.B.		
3-wheeler	M50	WM50
JOHNSON		
All models	M50	WM50
LAUSON		
Model TLC	TF550	—
LEVIS		
247 c.c. 4-stroke models requiring 18 mm. plugs	M60	WM60
247 c.c. 4-stroke models requiring 14 mm. plugs	F70	WF70
247 c.c. 2-stroke models	ML60	WML60
Other models requiring 18 mm. plugs	M60	WM60
Other models requiring 14 mm. plugs	F70	WF70

Make and Year of Model

K.L.G.
Plug
Type

Water-
tight
Equiva-
lent

LION RAPIDE—See Villiers Engines

M.A.G.

o.h.v. models	M60	WM60
s.v. models	M50	WM50

MANET

90 c.c., 1947	F70	WF70
---------------	-----	------

M.A.S.

Vacchi	M60	WM60
1937-40	M80	WM80

MATCHLESS

350 c.c. Models G3 L, G3 LS	F80	WF80
350 c.c. Competition Model G3 LC	FE80	WFE80
500 c.c. Models G80, G80 S	F80	WF80
500 c.c. Competition Model G80 C	FE80	WFE80
500 c.c. Twin, Model G.A.	FE80	WFE80
Other o.h.v. models requiring 18 mm.	M60	WM60
Other o.h.v. models requiring 14 mm.	F70	WF70
Other s.v. models requiring 18 mm.	M50	WM50
Other s.v. models requiring 14 mm.	F50	WF50

MILLER

200 c.c.	M60	WM60
125 c.c.	M60	WM60
Normal, 1937-40	F80	WF80

MONTESA

98 and 125 c.c. models	F50	WF50
------------------------	-----	------

MONTGOMERY—See Villiers and J.A.P.

MORGAN

Model F, 3-wheeler (Ford 8 or 10 engine)	F50	WF50
Model D, 3-wheeler (V twin engine)	F70	WF70
Other models using 18 mm. plugs	M60	WM60

MORINI

125 c.c. model	F80	WF80
----------------	-----	------

M.V.

125 c.c. model	F70	WF70
----------------	-----	------

NEW HUDSON

Autocycle (98 c.c. Villiers) requiring 18 mm. plugs, short reach	M50	WM50
Autocycle (98 c.c. Villiers) requiring 18 mm. plugs, long reach	ML50	—
Autocycle (98 c.c. Villiers) requiring 14 mm. plugs	F70	WF70

NEW IMPERIAL

Unit Plus 40, 46, 46DL, 36L (246)	F50	WF50
Other models requiring 14 mm. plugs	F70	WF70
Other models requiring 18 mm. plugs	M50	WM50

NIMBUS

F70	WF70
-----	------

NORMAN

Model C Autocycle (98 c.c. Villiers) requiring 18 mm. plugs, short reach	M50	WM50
Model C Autocycle (98 c.c. Villiers) requiring 18 mm. plugs, long reach	ML50	—
Model C Autocycle (98 c.c. Villiers) requiring 14 mm. plugs	F70	WF70
Models D and D/DL (98 c.c. Villiers) requiring 18 mm. plugs, short reach	M50	WM50
Models D and D/DL (98 c.c. Villiers) requiring 18 mm. plugs, long reach	ML50	—
Models D and D/DL (98 c.c. Villiers) requiring 14 mm. plugs	F70	WF70
Models B1 and B1/DL (122 c.c. Villiers) requiring 18 mm. plugs	M60	WM60
Models B1 and B1/DL (122 c.c. Villiers) requiring 14 mm. plugs	F70	WF70
Models B2 and B2/DL (197 c.c. Villiers) requiring 18 mm. plugs	ML60	WML60
Models B2 and B2/DL (197 c.c. Villiers) requiring 14 mm. plugs	F80	WF80

NORTON

Model 18, 490 c.c., o.h.v.	F70	WF70
Model E52, 490 c.c., o.h.v.	F70	WF70
Model 16H, 490 c.c., s.v., up to 1947	M80	WM80
Model 16H, 490 c.c., s.v., from 1948	FE70	WFE70
Big 4, 596 c.c., s.v., up to 1947	M80	WM80
Big 4, 596 c.c., s.v., from 1948	FE70	WFE70
Model 30, 500 c.c., "International" and "Manx"	FE100	WFE100
Model 40, 350 c.c., "International" and "Manx"	FE100	WFE100
Model T, 500 c.c.	WFE80	WFE80
Model 7, 500 c.c. twin "Dominator"	F70	WF70

N.S.U.

Sports	M60	WM60
Other models taking 18 mm. diameter plugs	M50	WM50
o.h.v. 14 mm. diameter	F70	WF70

N.U.T.

o.h.v. models	M60	WM60
s.v. models	M50	WM50

Make and Year of Model

	K.L.G. Plug Type	Water- tight Equiv- alent
O.E.C.		
o.h.v. taking 14 mm. plugs	F70	WF70
o.h.v. taking 18 mm. plugs	M60	WM60
Other models—see Villiers, J.A.P., Blackburne		
OGAR		
Standard, 7 h.p., 1939	M80	WM80
Elan, 9 h.p., 1939	M80	WM80
O.K. SUPREME		
Models taking 18 mm. plugs	M60	WM60
Models taking 14 mm. plugs	F70	WF70
PANTHER (P. & M.)		
Redwing 85 Model	ML60	WML60
Other o.h.v. models requiring 18 mm. plugs	M60	WM60
Models 65 - 65 de luxe, 250 c.c. ...	F70	WF70
Model 75, 350 c.c.	F70	WF70
Model 80, 500 c.c.	F70	WF70
Model 100, 600 c.c.	F50	WF50
Stroud Competition Model, 250 c.c. ...	F70	WF70
Stroud Competition Model, 350 c.c. ...	F70	WF70
PEUGEOT		
18 mm. s.v. models	M30	WM30
18 mm. o.h.v.	M60	WM60
14 mm. s.v.	F50	WF50
14 mm. o.h.v.	F70	WF70
PREMIER	M50	WM50
PUCH		
Models requiring 18 mm. plugs	M60	WM60
Models requiring 14 mm. plugs	F70	WF70
RALEIGH		
3-wheeler, 742 c.c., 1934-5	ML30	WML30
o.h.v. models	M60	WM60
s.v. models	M50	WM50
RAYNAL		
Autocycle (98 c.c. Villiers) requiring 18 mm. plugs, short reach	M50	WM50
Autocycle (98 c.c. Villiers) requiring 18 mm. plugs, long reach	ML50	—
Autocycle (98 c.c. Villiers) requiring 14 mm. plugs	F70	WF70

ROYAL ENFIELD

Models to 1939 requiring 18 mm. plugs	M50	WM50
Models to 1939 requiring 14 mm. plugs	F50	WF50
125 c.c. Model RE	F20	—
346 c.c. Model G	F70	WF70
350 c.c. Standard Bullet Model	F70	WF70
499 c.c. Model J.2	F70	WF70
500 c.c. Twin	F70	WF70
RUDGE		
250 c.c. Rapid	F70	WF70
499 c.c. Ulster, to 1938	F70	WF70
499 c.c. Ulster, 1939 only	FE70	WFE70
349 c.c., 499 c.c. T.T. Replica, 499 c.c. Silver Vase Special and 499 c.c. Special Other models	M80	WM80
	M60	WM60
SANGLAS		
350 c.c.	F70	WF70
SAROLEA		
350 c.c., s.v.	F50	WF50
350 c.c. o.h.v. and 600 c.c. o.h.v. ...	F70	WF70
SCOTT		
500 c.c. Twin 2-stroke, up to 1947 (Note—Use M30 for running in) ...	M50	WM50
500 c.c. Twin 2-stroke, from 1948 ...	F50	WF50
SEILING		
307 c.c.	M80	WM80
SERTUM		
Goliath and Batua	M80	WM80
Models requiring 14 mm. plugs	F70	WF70
SOCOVEL—See under Villiers Engines		
SORIANO		
Two-stroke, 1942	F70	WF70
S.O.S.		
249 c.c. model	F70	WF70
STEVENS		
500 c.c. o.h.v.	F70	WF70
SUN		
Autocycle (98 c.c. Villiers)	F70	WF70
98 c.c. Motor-cycle (Villiers)	F70	WF70
122 c.c. Motor-cycle (Villiers)	F70	WF70
SUNBEAM		
Models S7 and S8, 500 c.c. twin ...	FE70	WFE70
Other models requiring 14 mm. plugs	F70	WF70
Other models requiring 18 mm. plugs	M60	WM60

Make and Year of Model	K.L.G. Plug Type	Water- tight Equiva- lent
SWALLOW		
Gadabout (Villiers engines) requiring 18 mm. plugs, short reach ...	M50	WM50
Gadabout (Villiers engines) requiring 18 mm. plugs, long reach ...	ML50	—
Gadabout (Villiers engines) requiring 14 mm. plugs ...	F70	WF70
TANDON		
Mile Master and De Luxe (122 c.c. Villiers) requiring 18 mm. plugs ...	M60	WM60
Mile Master and De Luxe (122 c.c. Villiers) requiring 14 mm. plugs ...	F70	WF70
TRIUMPH		
350 c.c. Model 3T ...	F70	WF70
500 c.c. Speed Twin Model ...	F70	WF70
500 c.c. Trophy Model ...	F70	WF70
500 c.c. Grand Prix Model ...	F70	WF70
500 c.c. Tiger 100 Model ...	F80	WF80
650 c.c. Thunderbird Model ...	F80	WF80
Model 3HW (ex. W.D.) ...	F70	WF70
Other models requiring 14 mm. plugs ...	F70	WF70
Other o.h.v. models requiring 18 mm. plugs ...	M60	WM60
Other s.v. models requiring 18 mm. plugs ...	M50	WM50
T.W.N.		
B200L, S350, 1937-8 ...	F50	WF50
BD250, B350, 1939-40 ...	F70	WF70
VELOCETTE		
G.T.P., 250 c.c., 2-stroke, 1935-47 ...	F70	WF70
M.A.C., 350 c.c., o.h.v., 1935-50 ...	F70	WF70
M.O.V., 250 c.c., o.h.v., 1935-47 ...	F70	WF70
M.S.S., 500 c.c., o.h.v., 1935-48 ...	F80	WF80
K.T.S., 350 c.c., o.h.c., 1935-47 ...	FE80	WFE80
K.S.S., 350 c.c., o.h.v., 1935-48 ...	FE80	WFE80
K.T.T., 350 c.c., Mk. IV and Mk. V (early models) ...	M100	WM100
K.T.T., 350 c.c., Mk. V (later models) ...	FE100	WFE100
149 c.c., Model LE Twin ...	TEN L30	—
VELO SOLEX		
45 c.c. model ...	F50	WF50

VESPA—See under Douglas

VILLIERS (ENGINES)

98 c.c. models requiring 14 mm. plugs	F70	WF70
98 c.c. models requiring 18 mm. plugs (12.5 mm. reach) ...	M50	WM50
98 c.c. models requiring 18 mm. plugs (18 mm. reach) ...	ML50	WML50
122 c.c. models requiring 14 mm. plugs	F70	WF70
122 c.c. models requiring 18 mm. plugs	M60	WM60
148 c.c. models requiring 18 mm. plugs (12.5 mm. reach) ...	M50	WM50
148 c.c. models requiring 18 mm. plugs (18 mm. reach) ...	ML50	—
172 c.c. models ...	ML60	WML60
197 c.c. models requiring 18 mm. plugs	ML60	WML60
197 c.c. models requiring 14 mm. plugs	F80	WF80
249 c.c. models ...	ML50	—
346 c.c. models ...	ML50	—

VICTORIA

KR20, KR25, KR35 ...	F70	WF70
----------------------	-----	------

VINCENT

Grey Flash, 499 c.c. ...	F70	WF70
Meteor, 499 c.c. ...	F70	WF70
Comet, 499 c.c. ...	F70	WF70
Rapide, 499 c.c., from 1946 ...	FE70	WFE70
Rapide, 998 c.c., from 1946 ...	FE50	WFE50
Rapide, 998 c.c., to 1940 ...	F70	WF70
Black Shadow, 998 c.c. ...	FE50	—
Black Lightning, 998 c.c. ...	FE50	—

WOLF. See Villiers Engines

WOOLLER

... ..	F70	WF70
--------	-----	------

ZEHNDER

... ..	M50	WM50
--------	-----	------

ZENITH

750 c.c., s.v., Jap Twin ...	F70	WF70
Other models, 18 mm. plugs (or see Villiers engines)	M50	WM50

ZUNDAPP

1935 onwards, o.h.v. ...	F70	WF70
1935 onwards, s.v. ...	F50	WF50
Prior to 1935 ...	M60	WM60

K.L.G. Racing Plugs

K.L.G. RACING & SERVICE DEPARTMENTS

TYPE NO.	HEAT AND OIL RESISTANCE
731 689 646 690 F.220	Highest heat and lowest oil resistance.
	Lowest heat and highest oil resistance.

THREAD DIAMETERS & REACHES

All these models have 14 m.m. diameter threads and 12.5 m.m. thread reach.

Long reach versions (18 m.m. reach) are available and are denoted by adding the letters LR to the above type numbers (e.g. 689-LR is the long reach version of the 689), except F.220, the long reach version of which is FE.220.

GAP SETTING

All K.L.G. Racing Plugs are manufactured with a gap setting of .012"—.015" (12 to 15 thousandths of an inch).

DETACHABILITY

Type F.220 is detachable. The other models are non-detachable.

PRICE

Types 731, 689, 646, 690—25/- each.

Type F.220—12/6 each. (Long reach versions are the same price as these normal reach models.)

RACING, TRIALS, HIGH SPEED TOURING, ETC.

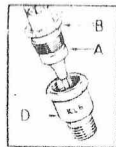
Racing, trials, sustained high speed work or any case where engines are specially tuned or "hotted up" in any way, necessitates the use of special types of plugs.

Details of the correct type of K.L.G. to use in these cases will willingly be furnished on request. Please write or telephone the Racing and Competitions Department, K.L.G. Sparking Plugs, Ltd., Putney Vale, London, S.W.15 (Telephone Putney 8111).

K.L.G. SERVICE DEPARTMENT

Although all K.L.G. enquiries are now directed to the Head Office at Cricklewood Works, London, N.W.2, the well known K.L.G. Service Department still operates at the K.L.G. Factory in Putney Vale, London, S.W.15 (Telephone: Putney 8111 and there, it is ready to give personal attention and advice to customers who wish to bring in their motor cycle or car for a plug overhaul.

Instructions FOR CLEANING K.L.G. PLUGS



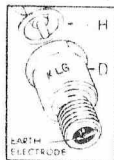
Most K.L.G. plugs are of the detachable type and can be cleaned easily and efficiently by hand. It is best to clean them every 5,000 miles (more frequently if the engine is oily). To take the plug to pieces, the Gland Nut (B) should be unscrewed from the Body (D), so that the insulated Electrode Assembly (A) may be withdrawn.

If the 'Corundite' insulation is oily, first wash it in petrol or paraffin; then with fairly coarse glass paper, remove the carbon deposit and wash again. The firing point (F) should be cleaned with a fine emery cloth.



The Plug Body (D) should be scraped clean internally with a knife or wire brush, paying particular attention to the Earth Electrodes and finally rinsed in petrol.

The Internal Washer (H) should be lightly smeared with thin oil. Make sure that it is properly seated in the Plug Body before re-inserting the Central Electrode Assembly. Screw up the Gland Nut and tighten sufficiently to give a gas-tight joint.



Now adjust the gaps in accordance with the engine makers' instructions—normally .015". Always remember the golden rule: *never try to move the central electrode. It is embedded in 'Corundite' which cannot bend. Move the earth electrodes only.*

Instructions for fitting

1

Make quite sure before you fit plugs that they are the correct type for the engine as quoted in this recommendation list.

2

See that each plug is fitted with its external seating-washer.

3

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, nothing more is needed. Over-tightening will only cause damage.

HEAT RANGE CHART

Heat Value and Highest Oil Resistance	18 m/m Diameter Thread					14 m/m Diameter Thread				12 m/m Diam. Thread			10 m/m Diam. Thread			7 (20 mm) ALUM. Thread			C (Gal) Type
	Normal Reach	Long Reach	Extra Reach	Small Hexagon	Long Barrel	Normal Reach	Long Reach	Extra Reach	Short Reach	Normal Reach	Normal Reach	Long Reach	Normal Reach	Normal Reach	Long Reach	Normal Reach	Long Reach	Long Barrel	
Lowest Heat Value and Highest Oil Resistance						F 20		FE 20	TFS 20				TEN 20S			A 10	AL 20		C 20
↑ Oil Heating occurs fit a plug with higher heat value		M 30 WM 30	ML 30 WML 30	TME 30	SM 30 TMB 30		FLB 30x FL 30	FE 30	TFS 30				TEN L20						
		M 50 WM 50	ML 50		SM 50 TMB 50	F 50 WF 50	FL 50	FE 50	TFS 50		TW 50		TEN 50 TEN 50S		TEN L50 P TEN L 50			TAB 60	
		M 60 WM 60	ML 60 WML 60		TMB 60			FE 60											
↓ Oil Chilling occurs fit a plug with lower heat value						F 70 WF 70		FE 70 WFE 70	F 70										
Highest Heat Value and Lowest Oil Resistance		M 80 WM 80				F 80 WF 80		FE 80 WFE 80					TEN L80						
		M 100 WM 100	ML 100 WML 100			F 100 WF 100		FE 100 WFE 100											

PRICE LIST

Thread Diameters	Plug Types	Price
22 m/m. (7/8")	A10, A20, A30, AL20, TAB60	5/-
18 m/m.	M30, M50, M60, M80, ML30, ML50, ML60, SM30, SM50 TMB30, TMB50, TMB60, TME30 WM30, WM50, WM60, WM80, WML30, WML60 RM60 !	5/- 8/6 7/6
14 m/m.	F20, F50, F70, F80, FL50, FE20, FE30, FE50, FE60, FE70, FE80, FS70 TFS20, TFS30, TFS50, WF50, WF70, WF80, WFE70, WFE80 FLB30x F100, FE100 WF100, WFE100	5/- 8/6 7/6 10/6 12/6
12 m/m.	TW50	5/-
10 m/m.	TEN20, TEN50, TEN-L30, TEN-L50, P TEN-L50	5/- 7/6
Waterproof Covers	" P " Type " S " Type " S " Type with suppressor fitted	2/- 3/6 4/6