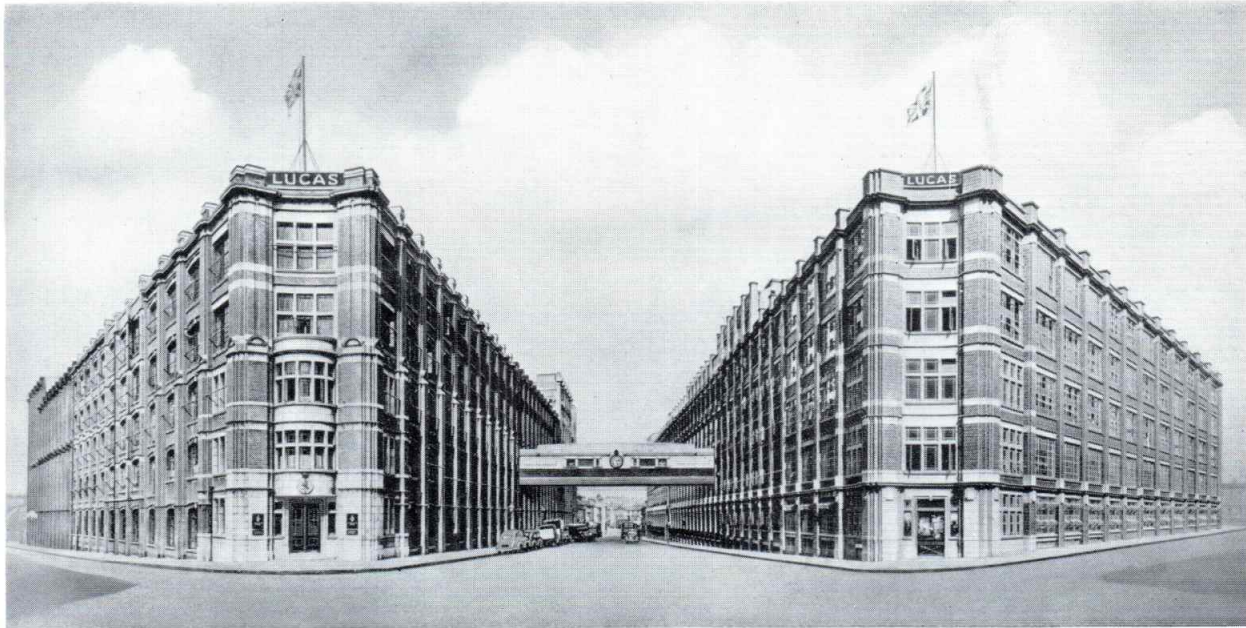
The advertisement features a large, stylized globe on the left side, showing the outlines of continents in a light green color against a darker green background. The globe is partially obscured by the text and mechanical components. On the right side, there is a vertical arrangement of various mechanical parts, including several different models of Lucas magnetos and a circular, serrated metal component. The background is a deep blue gradient. The text 'LUCAS' is in large, bold, yellow letters with a white outline, and 'MAGNETOS' is in similar yellow letters with a white outline. Below this, a black banner contains the text 'FOR 1 to 8 CYLINDER ENGINES' in red. The mechanical components are shown in various orientations, highlighting their design and functionality. The overall aesthetic is that of a mid-20th-century technical or industrial advertisement.

LUCAS MAGNETOS

FOR 1 to 8 CYLINDER ENGINES

The LUCAS Organisation



Head Offices and Works: Great King Street, Birmingham

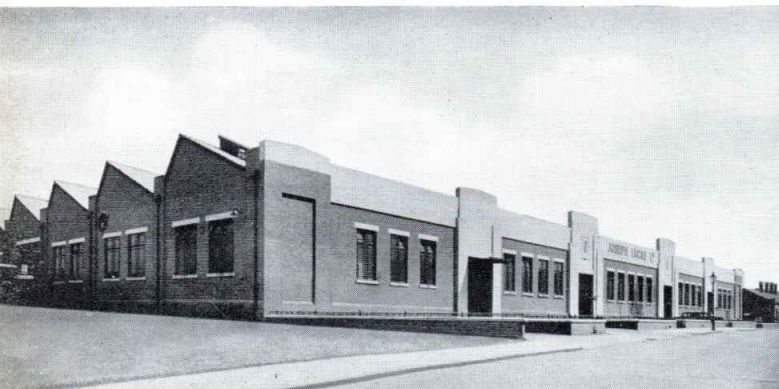
Joseph Lucas Ltd., with Associated Companies, is the premier industrial organisation of its kind in Britain, and manufactures the majority of Electrical and other Equipment for British Cars, Transport Vehicles, Motor Cycles and Tractors.

From the seventeen Lucas plants in Britain, employing 38,000 workpeople, components and accessories go out to every part of the world.

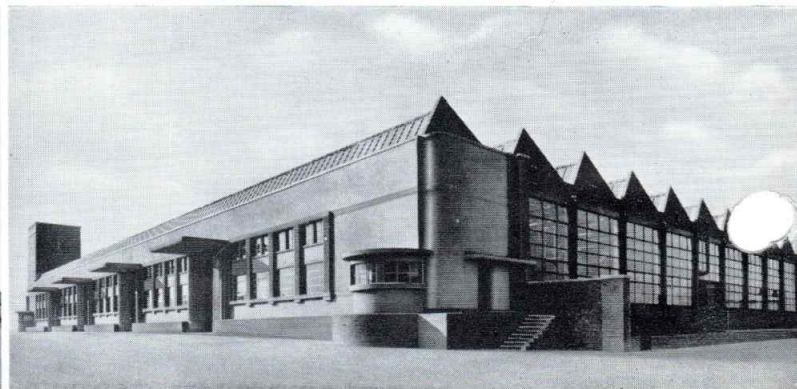
Lucas have never been content merely to sell their products; their quality and performance are backed by a service and spares organisation which operates all over the world.



Great Hampton Street Works, Birmingham



Battery Factory, Formans Road, Birmingham



Branch Factory: Shaftmoor Lane, Birmingham

LUCAS MAGNETOS

A LUCAS MAGNETO is available to meet your requirements.

A great deal of intensive research and development work has gone into the design of each range of magnetos, which are manufactured throughout by skilled workmen using the highest quality materials.

The World's fastest car was provided with Ignition Equipment by the Lucas Organisation, and in motor cycle racing most of the principal successes have been achieved by machines fitted with Lucas Racing Magnetos.

DESIGN



Since the earliest days of magneto design the Lucas Organisation has been involved in the development of high tension ignition equipment. The technical development work carried out in our laboratories has been closely connected with the progress made in the manufacture of special magnetic alloys. These alloys, together with new die-casting techniques, have made possible the production of compact and extremely robust rotating-magnet magnetos.

Our design engineers, backed by this experience, are constantly looking for new ways to improve the performance and reliability of Lucas Magnetos. Some of the design details already built into our magnetos are:

- ★ **Ball or roller bearings**—for both ends of the rotor or armature to ensure long trouble-free life.
- ★ **Vacuum coil impregnation**—full coil protection to tropical testing standards.
- ★ **Self-healing metalised paper 'capacitors'**—on all the newer pattern rotating magnet machines.
- ★ **All magnetos fully oil sealed.**
- ★ **Rigid shock-proof construction**—for universal application.

These features, and new ones under development, ensure that no finer magnetos are available anywhere in the world.

MANUFACTURE

Lucas magneto manufacture is concentrated in a new special purpose production unit. Each magneto is produced to precision engineering standards, by expert craftsmen, from the best available materials. Every stage in the manufacture of each component part is carefully checked by our quality control engineers to ensure the uniformity of production and subsequent dependability upon which the reputation of our equipment rests. This testing is extended to include careful analysis of raw materials and severe functional testing of the magneto during and at the completion of its manufacture.





UNITED KINGDOM OVER 400 MAIN AGENTS

AUSTRALASIA 18

THE AMERICAS 55

EUROPE 32

AFRICA 45

ASIA 28

AVAILABILITY

Lucas Magnetos are available all over the world. Agents and Stockists in Great Britain and Export Agents and Subsidiary Companies in almost all overseas territories provide the closest possible contacts with the magneto user both for initial supplies and spare parts.

Enquiries should be addressed to them, or alternatively to:—

**JOSEPH LUCAS (ELECTRICAL) LTD • GREAT KING STREET
BIRMINGHAM 19**

who will be pleased to deal with Manufacturers in the British Isles.

**JOSEPH LUCAS (SALES & SERVICE) LTD • GREAT HAMPTON STREET
BIRMINGHAM 18**

who are specially concerned with assisting retail trade or individual customers in the British Isles.

**JOSEPH LUCAS (EXPORT) LTD • 46 PARK STREET
LONDON W1 • ENGLAND**

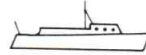
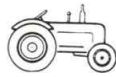
for all Export enquiries.

CONTENTS

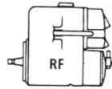
TECHNICAL DATA & ORDERING DETAILS



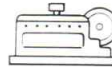
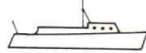
FOR 1, 2 & 4 CYLINDER



SECTION A



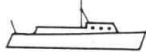
FOR 2, 3, 4 & 6 CYLINDER



SECTION B



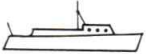
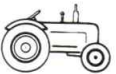
FOR 2, 3, 6 & 8 CYLINDER



SECTION C



FOR SINGLE & TWIN CYLINDER

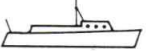


SECTION D

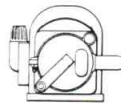
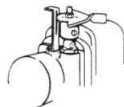
FLYWHEEL



FOR SINGLE & TWIN CYLINDER



SECTION E



IGNITION TIMING CONTROLS

SECTION F



FITTING INSTRUCTIONS

SECTION G

APPLICATIONS, REPLACEMENTS & SPARE PARTS

MOUNTING GUIDE

SECTION H

APPLICATIONS



SECTION J

REPLACEMENTS



SECTION K

SPARE PARTS



SECTION L

SERVICING FOR OLDER PATTERN LUCAS MAGNETOS

SECTION M

GUARANTEE

We stand by all goods of our manufacture. All usual and reasonable precautions have been taken by us to ensure excellence of materials and workmanship, and in the event of any defect in a LUCAS magneto which is not caused by fair wear and tear, misuse or negligence, being disclosed within twelve months of its being put into use, we will either supply new parts or components in exchange for those defective, or repair such defective parts or components, free of charge. We do not undertake to dismantle or reassemble or bear the cost of dismantling or reassembling any such part or component on the vehicle or chassis. This undertaking shall be deemed to exclude any and every other obligation whatsoever, and all liability for any loss or damage howsoever or whensoever caused or arising, except the cost of replacement or repair in accordance with this undertaking.

COPYRIGHT.—All rights reserved. No part of this publication may be reproduced without permission.

Section A

LUCAS

SR

MAGNETOS

LUCAS SR MAGNETOS



Universal Application on

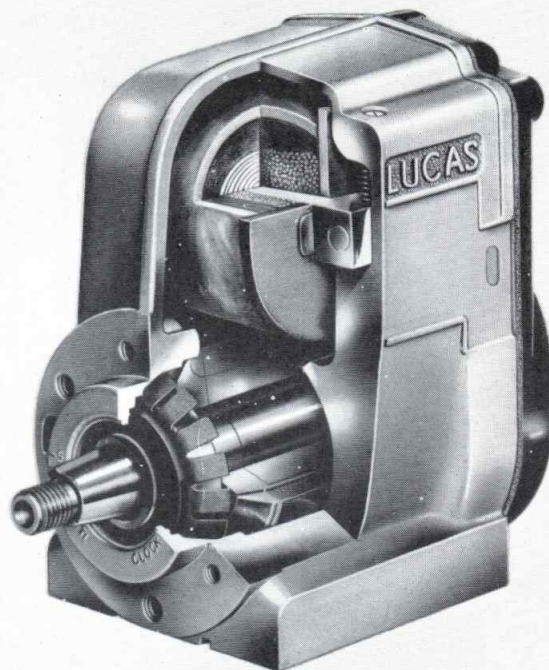
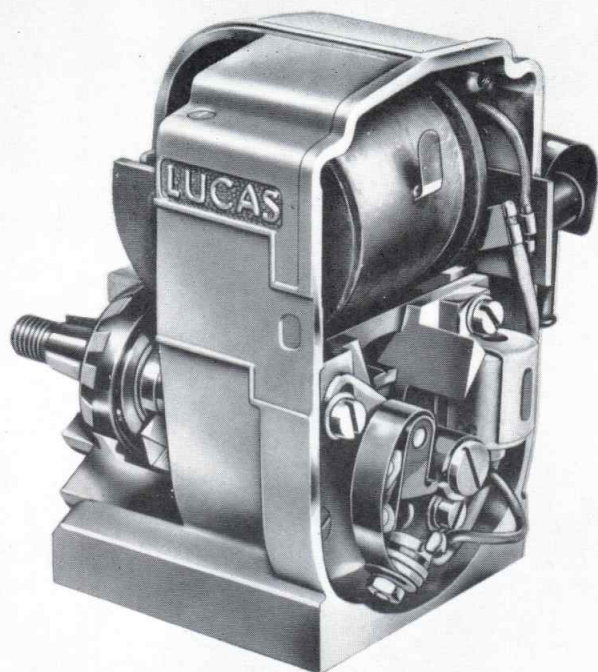
1, 2 & 4 CYLINDER

- AGRICULTURAL
- INDUSTRIAL
- MARINE ENGINES

Special Application on Racing Motor Cycles



LUCAS SR MAGNETOS



INTRODUCTION

The Lucas SR Magneto is the result of many years of experience and embodies many individual refinements, which place it in a class of its own for efficiency and long lasting trouble-free performance.

These SR Magnetos can be supplied in single, twin or four cylinder versions, with clockwise or anti-clockwise rotation.

A complete range of detachable flanges and base plates makes this magneto adaptable to ALL common flange and base mountings. A fixed dog impulse starter is available for use where a large number of similar engines have to be equipped. For general replacement purposes an **adjustable dog impulse starter** will be supplied; this, with the adjustable tripping ring, makes possible the exact replacement of an existing magneto. A special impulse unit with fixing studs and a central locating boss is available where gear or sprocket drive is required.

GENERAL FEATURES

The SR Magneto, which is of the rotating magnet type, is small and lighter than most comparable types.

Special attention has been paid to weather proofing, so that the unit is entirely suitable for operating in any climate.

Being of the rotating magnet type the SR Magneto has several inherent advantages:

The vacuum impregnated coil is of robust construction and, since it does not rotate, can suffer no damage due to centrifugal action on the windings. Vacuum impregnation ensures long life under arduous climatic conditions and seals the windings against atmospheric humidity. No slip rings or carbon brushes are necessary, thus reducing maintenance requirements.

A distributor type contact breaker is fitted, which ensures ease of setting and complete reliability for high and low speed operation.

—continued



LUCAS SR MAGNETOS

Contact points are of tungsten for general use, while platinum points are available for Marine Finished and Racing magnetos.

Regular sparking performance is obtained from a minimum of 100 revolutions per minute of the magneto shaft, to well over 4,000 r.p.m.—whilst 8,000 r.p.m. can be obtained in special circumstances. The magneto is therefore ideally suited for both fast and slow running engines.

All steel parts of the magneto are plated and treated with a zinc chromate solution, to prevent any risk of corrosion.

Ventilation is supplied by holes cut in the base of the unit whilst, in the four cylinder version, an extra *fully shrouded* breather hole is moulded in the distributor cover.

The “**Alnico**” magnets, used in the rotor, ensure a powerful high tension spark and do not lose their strength through ‘ageing’.

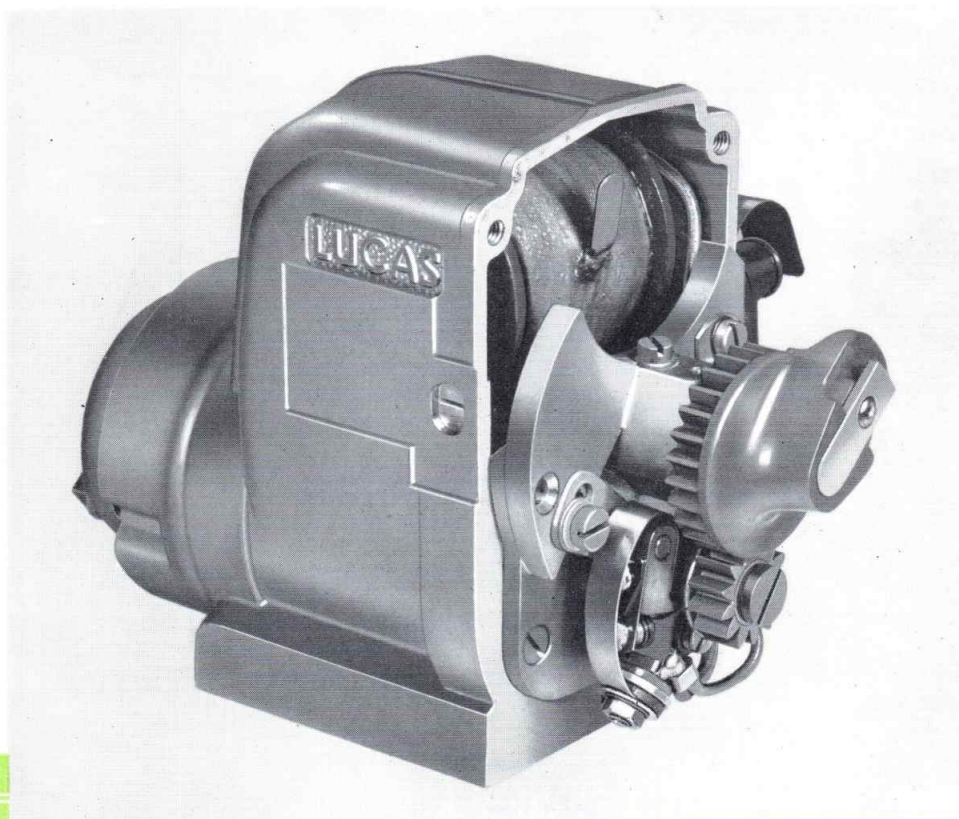
The **rotor** is supported at *both ends* on high grade ball bearings which are packed with special grease to give very long trouble-free operation.

The **capacitor** is of an entirely new design, being of the ‘self healing’ type, wound with metalised paper; this ensures that the magneto is free from any trouble caused by condenser failure.

The **cam** is of microporous sintered iron, impregnated with high grade lubricant; it requires no maintenance until after about 500 hours running. This material permits the use of exceptionally accurate cam tolerances and gives increased resistance to wear.

Cutouts can be supplied on either side of the body. The *cutout* is so wired that it is impossible to receive a shock due to faulty insulation. A terminal is incorporated in the cutout so that a panel mounted cutout switch can be used.

All these important design features are combined to form an extremely robust and reliable unit. Great care has been paid to the construction of the SR Magneto—it is an outstanding example of good electrical design coupled with a completely modern appearance which blends harmoniously with the very latest in engine development.



LUCAS SR MAGNETOS



S. R. MAGNETO



S. R. MAGNETO
with detachable
flange



S. R. MAGNETO
with impulse starter



S. R. MAGNETO
with impulse starter
and detachable
base plate

ORDERING DETAILS

This list shows the basic magnetos, without impulse starter, base plate or flange.

Combinations designed to suit specific engine mountings are given in the Mounting Guide (pages H1 to H8).

Magneto Model	No. of Cylinders	Rotation	Service No.	*Mounting No.	Magneto Model	No. of Cylinders	Rotation	Service No.	*Mounting No.
SR1	1	C	42289	1	†§SR2	2	AC	42303	2
SR1	1	C	42288	2	§SR2	2	AC	42280	3
SR1	1	C	42287	3	†‡SR2	2	C	42306	3
SR1	1	AC	42284	1	†‡SR2	2	AC	42307	3
SR1	1	AC	42283	2	†§SR2	2	AC	42282	3
SR1	1	AC	42281	3	SR2	2	AC	42343	3
†SR1	1	C	42295	2	SR4	4	C	42290	3
†SR1	1	AC	42296	2	SR4	4	AC	42291	3
†SR1	1	C	42308	3	†SR4	4	C	42314	3
†‡SR2	2	C	42302	2					

* See Mounting Guide (Page H1) † Marine Finish ‡ Half Engine Speed § Engine Speed || 90° Twin

SPECIAL NOTES.

1. All these basic magnetos have the cutout button located on the left hand side viewed from the driving end. **Magnetos can be supplied with the cutout mounted on the opposite side if requested.** If it is found necessary to change the position once the magneto is in service, this can be done by ordering Parts Set No. 491264. (See page G6.)
2. Single cylinder magnetos have vertical central H.T. outlets but, where space is limited, special shallow H.T. covers are available having horizontal outlets either left hand (Part No. 490862), or right hand (Part No. 490860), viewed from the driving end.
3. Where no impulse is employed it may be necessary to increase the taper size of the magneto shaft to enable the original driving member (e.g., gear or sprocket) to be fitted. A sleeve for this purpose (Part No. 492583) is available.
4. A synthetic rubber impulse starter dust cover (Part No. 492050) may be used to advantage for certain applications.
5. Where it is necessary to attach a gear to an impulse starter having normal driving dogs, a longer impulse starter fixing nut (Part No. 492991) will be required.



LUCAS SR MAGNETOS

BASE PLATES AND FLANGES

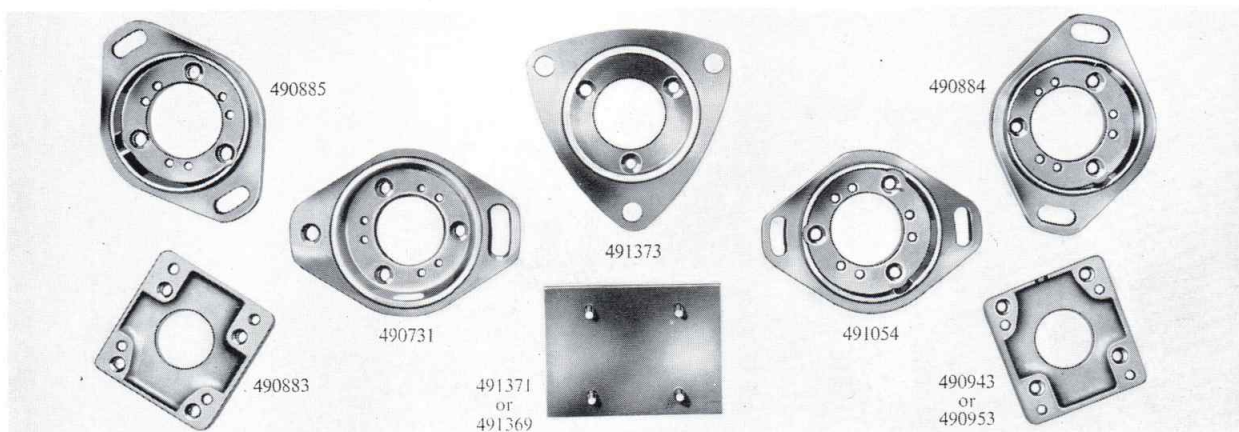
The new Lucas SR Magneto has been designed to fit all normal base and flange mountings.

The basic magneto is of 35 mm. spindle height and a variety of detachable base plates enable any spindle height up to 45 mm. and any type of fixing to be accommodated.

Separate flanges, which are designed to suit machines used with or without an impulse starter, can be supplied to suit any normal application.

Full details of the more common type of flange and base plate available are shown in the Mounting Guide (pages H1 to H8) and some typical examples are shown below.

Flanges or base plates to suit special applications can be supplied on demand.



BASE PLATES

Type	Service No.
10 mm. B.S.I.	490943
10 mm. S.A.E.	490953
10 mm. 8-hole, English	490883
3 mm. 1.968" centres	491369
3 mm. 2.204" x 1.653" centres	491371
10 mm. 6 fixing holes	491513

ORDERING DETAILS

FLANGES

Type	Service No.	Type	Service No.
Upright, English	491054	Upright, as English, but smaller spigot and larger fixing slots	492635
18° offset, English	490884	Upright, as English, but larger spigot and longer fixing slots	492636
30° offset, English	490885	18° offset to left, English	492639
British, horizontal	491309	30° offset to left, English	492640
American, horizontal	491310	B.S.I. G type (three slots)	492906
English, 3-hole	491373		
S.A.E.	490731		

IMPULSE STARTERS

Two types are available—the SR Fixed Dog Impulse, for use where a large number of similar machines are to be equipped, and the SR Adjustable Dog Impulse, by means of which any lag angle or dog position can be set. Full details of these impulses are given on pages F1 and F2 of the Timing Controls Section.

ORDERING DETAILS — SR MAGNETO FIXED IMPULSE STARTERS

Impulses per Rev.	Rotation	Drive Details	Part No.	Special Notes	Impulses per Rev.	Rotation	Drive Details	Part No.	Special Notes
1	AC	1" Dogs	47526	Dog angle pre-set at 125°	2	C	5/16" Dogs	47547	Dog angle set on horizontal
2	AC	1" Dogs	47527						
1	C	1" Threaded Studs	47537	For Gear or Sprocket Drive	2	AC	5/16" Dogs	47555	Dog angle set at 145°
1	AC	1" Threaded Studs	47533		2	AC	5/16" Dogs	47561	Dog angle set at 25°
2	C	1" Threaded Studs	47539		2	C	5/16" Dogs	47560	Dog angle set at 60°
2	AC	1" Threaded Studs	47538		1	C	5/16" Dogs	47542	Dog angle set at 108°
1	C	1" Dogs	47534	Dog angle set at 125°	1	AC	5/16" Dogs	47543	Dog angle set at 108°
2	C	1" Dogs	47540	Dog angle set at 125°	2	C	Special Dogs	47550	—
2	C	1" Dogs	47528	Dog angle set at 150°	2	AC	Special Dogs	47551	—
					1	AC	1/4" Plain Pins	47546	—

ORDERING DETAILS — ADJUSTABLE IMPULSE STARTERS

IMPULSE UNIT

Impulses per Rev.	Rotation	Part No.
1	C	47530
1	AC	47535
2	C	47531
2	AC	47536

Impulse Unit Part No. includes all necessary parts *except* driving plate.

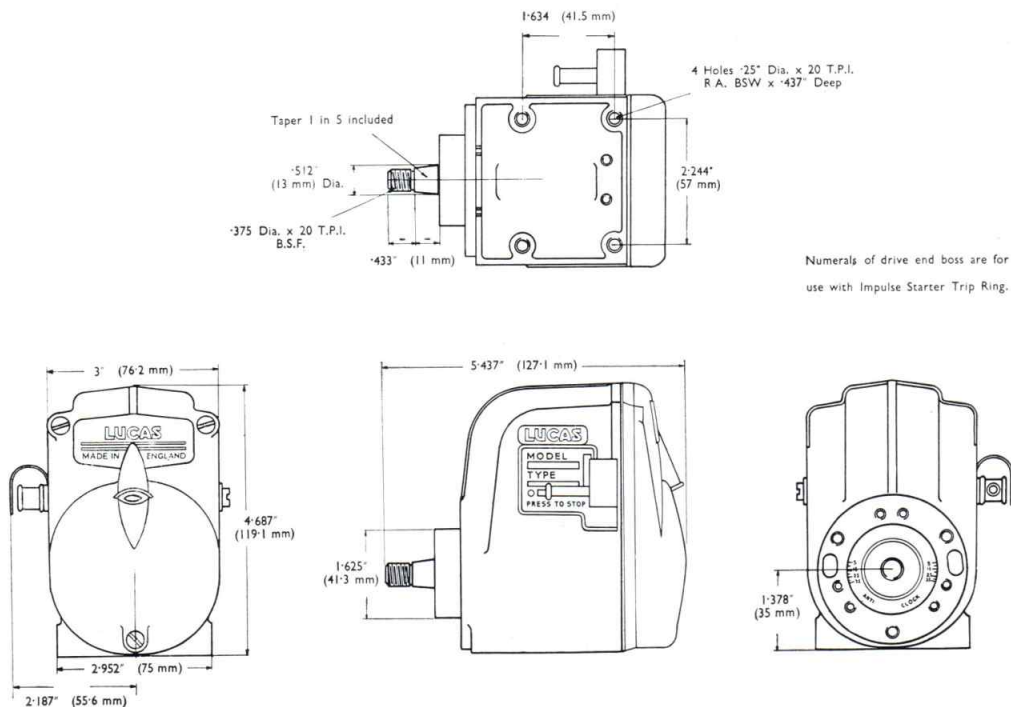
DRIVING PLATES

Drive Details	Part No.
1/4" Dogs	491075
5/16" Dogs	490986
1/4" Extended Dogs	491076
5/16" Extended Dogs	491311

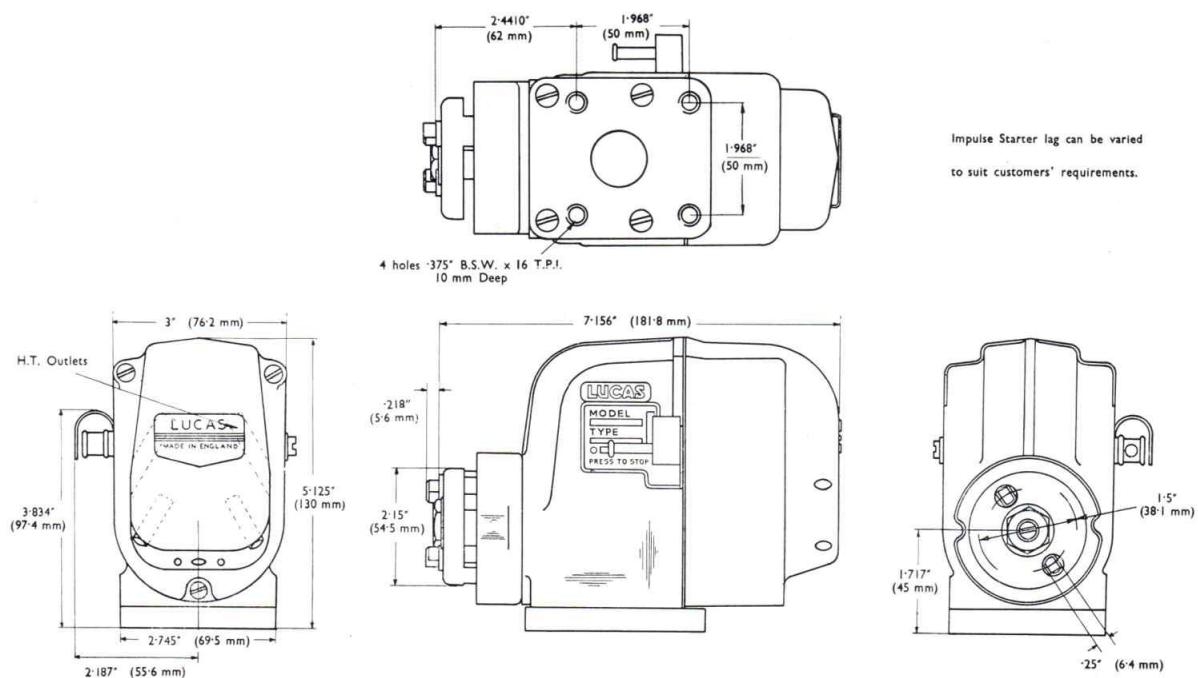
N.B. Fixed or adjustable Impulses to suit special applications can be supplied on demand.

LUCAS SR MAGNETOS

S.R. MAGNETO—with 35 mm B.S.I. Base

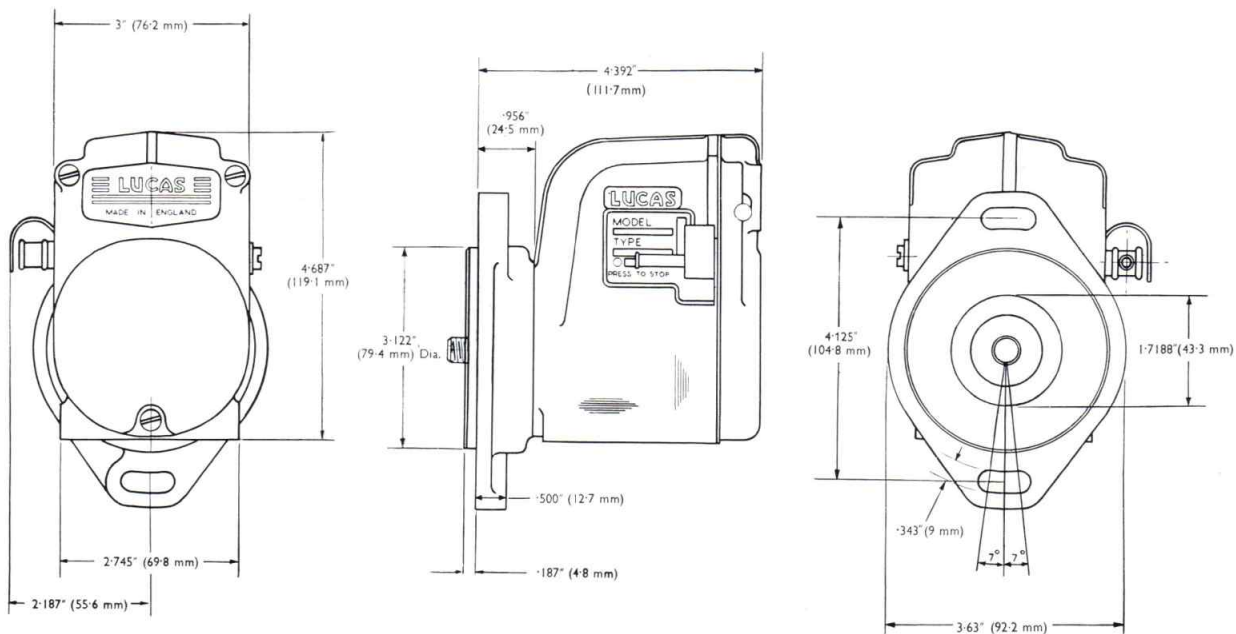


S.R.4. MAGNETO—with 45 mm S.A.E. Base and Impulse ($\frac{1}{4}$ " Driving Dogs)



LUCAS SR MAGNETOS

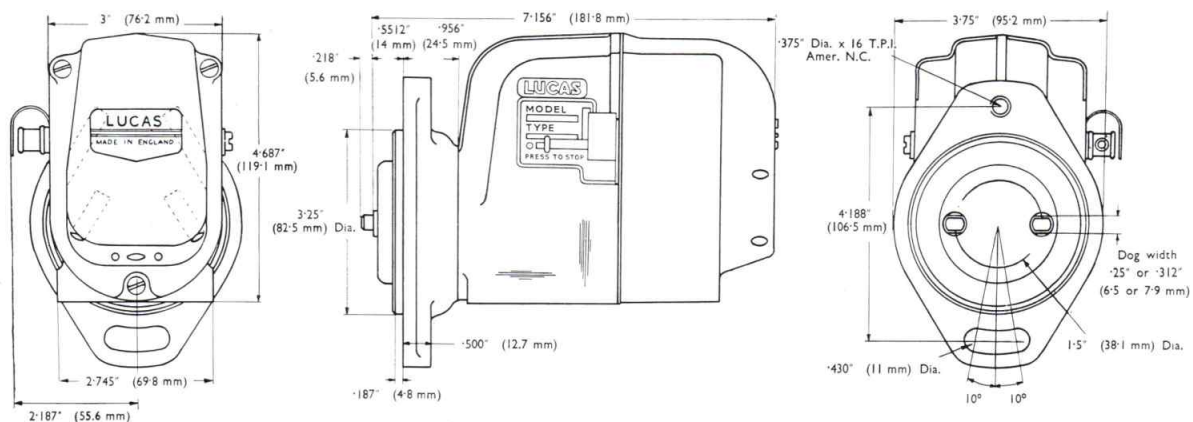
SR MAGNETO—with Upright English Flange



S.R.4. MAGNETO—with S.A.E. Flange and Impulse Starter ($\frac{1}{4}$ " or $\frac{5}{16}$ " Driving Dogs)

L.T. Switch Terminal and push cutout is shown here on the right hand side. Magnetos may be supplied with this on the left hand side if required.

Impulse Starter lag can be varied to suit customers' requirements



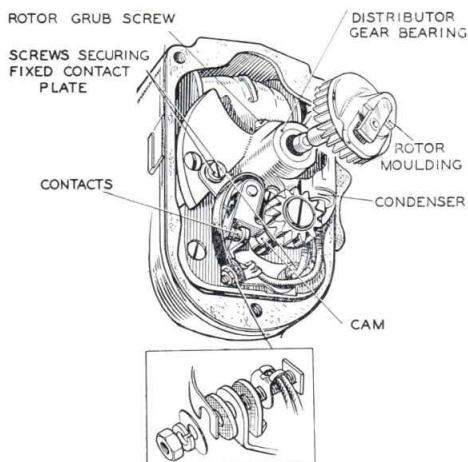
LUCAS SR MAGNETOS

MAINTENANCE

LUBRICATION

Every 150 running hours, remove the moulded cover of twin and four cylinder magnetos and add a few drops of thin machine oil to the oil well on the top of the distributor gear bearing.

After every 1,000 hours' running, remove the moulded cover, slacken the nut securing the end of the contact breaker spring and lift off the spring and contact breaker lever. Smear the pivot pin with a *small* quantity of Mobilgrease No. 2 or equivalent.



REFITTING HIGH TENSION CABLE

Occasionally inspect the cables from the moulded cover to the sparking plugs; replace any which have the insulation cracked or damaged with 7 mm. neoprene covered ignition cable.

Unscrew the appropriate cable fixing screw and pull out the old cable. Cut the new cable to correct length without cutting back the insulation; push the cable well home into the recess in the cover and tighten the screw which pierces the insulation, makes contact with the wire core and locks the cable in place.

TAKE GREAT CARE TO PREVENT OIL OR GREASE GETTING ON OR NEAR THE CONTACTS.

The magneto should be overhauled every two years, and the ball bearings cleaned and re-packed with high-melting-point grease. At the same time the spring of the impulse starter must be lubricated with thin machine oil and the sintered iron cam lubricated with medium engine oil.

The oil should be given time to soak into the cam, and the cam wiped dry on completion.

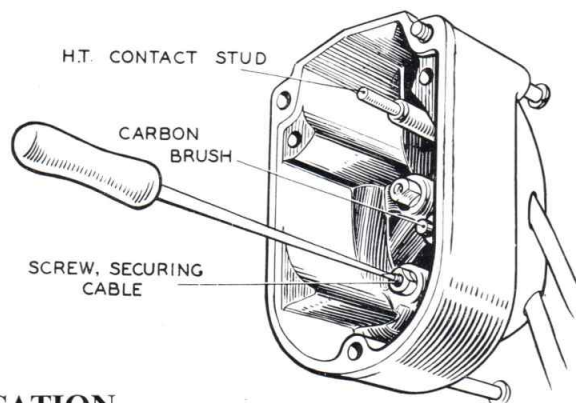
CLEANING AND CONTACT ADJUSTMENT

Wipe the inside of the moulded cover thoroughly with a soft, dry cloth. Clean the electrodes and see that the carbon brush and the brass contact stud are clean and move freely in their holders.

If the contacts are burned or dirty, remove the arm carrying the moving contact and polish them with very fine carborundum stone, or fine emery cloth, and wipe away any dust with a petrol-moistened cloth. On multi-cylinder machines the moulded fabric gear must be removed and the screws holding the fixed contact loosened, before the moving contact can be taken off.

Reset contact breaker gap to .010" - .012" (0.25 - 0.3 mm.). When set tighten securing screws firmly.

Replace the fabric gear so that the marked teeth engage with the correct teeth on the drive gear, and tighten shaft retaining screw.



FAULT LOCATION

This fault location guide gives a simple yet thorough check of the ignition system.

Possible causes and methods of detection

1. ENGINE WILL NOT FIRE

- (a) Controls not set correctly for starting.
- (b) Dirty or pitted contacts.
- (c) Contact breaker out of adjustment. Turn engine until contacts are fully opened and test gap with gauge.
- (d) High tension cables perished or worn.

2. ENGINE MISFIRES

- (a) Contact breaker out of adjustment. Turn engine until contacts are fully opened and test gap with gauge.
- (b) Defects in the H.T. circuit.
Remove each sparking plug in turn, rest it on cylinder head and observe whether a spark occurs when engine is turned.

Remedy

- (a) See that ignition is switched on, petrol turned on, and everything is in order for starting.
- (b) Clean contacts.
- (c) Adjust gap to gauge (.010"-.012").
- (d) Renew cables.
- (a) Adjust gap to gauge (.010"-.012").
- (b) If sparking is irregular:
Clean plugs and adjust plug gap. Replace cable if insulation shows signs of deterioration or cracking.
If sparking is regular at all plugs, trouble is probably due to engine defects. Examine carburettor, petrol supply, etc.

IF THESE TESTS DO NOT REVEAL THE DIFFICULTY, REMOVE THE MAGNETO FOR BENCH TESTING BY YOUR LUCAS AGENT

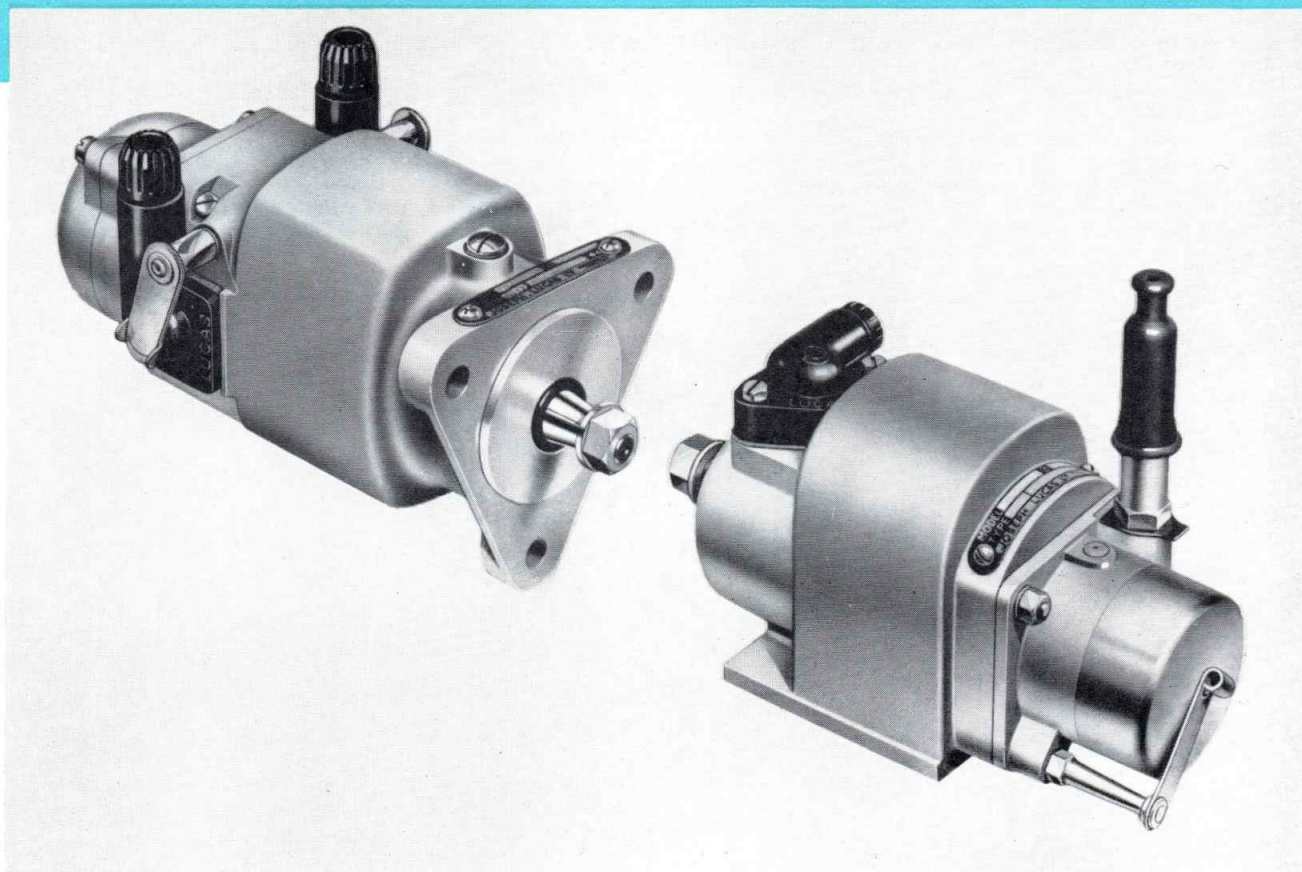
Section D

LUCAS

KF & N

MAGNETOS

LUCAS KF & N MAGNETOS



Application on

SINGLE AND TWIN CYLINDER

- MOTOR CYCLE
- AGRICULTURAL
- INDUSTRIAL
- MARINE ENGINES



LUCAS KF & N MAGNETOS

INTRODUCTION

These magnetos are of the rotating coil type, and are suitable for single cylinder, 180° twin cylinder (or V twin) engines. Their special advantage is that they are extremely compact. Both the face type cam and ring cam contact breakers are available. A number of base fixings are available and engine manufacturers can fit an automatic timing control mechanism if this is required (details in Timing Control Section).

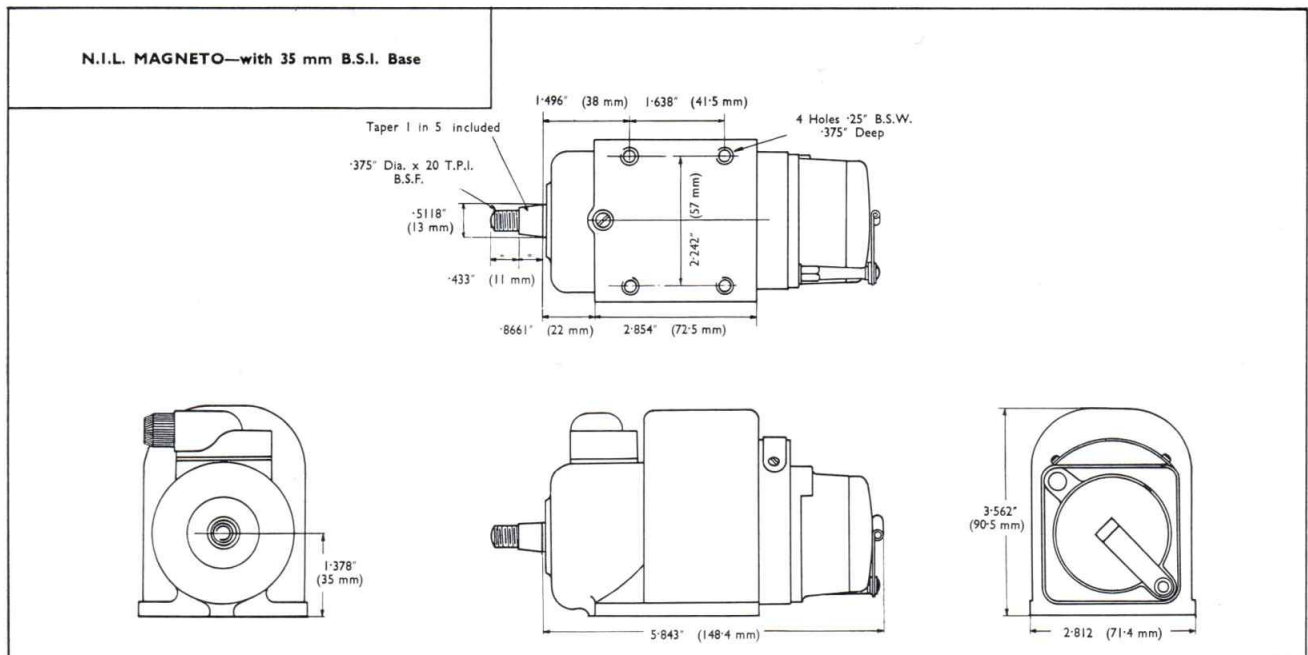
Vacuum impregnated coils are used, with special varnish which protects the coil and reduces the risk of damage in extreme climatic conditions.

The armature is supported at each end by high grade ball bearings, which are prepacked with special grease to ensure long and trouble-free operation.

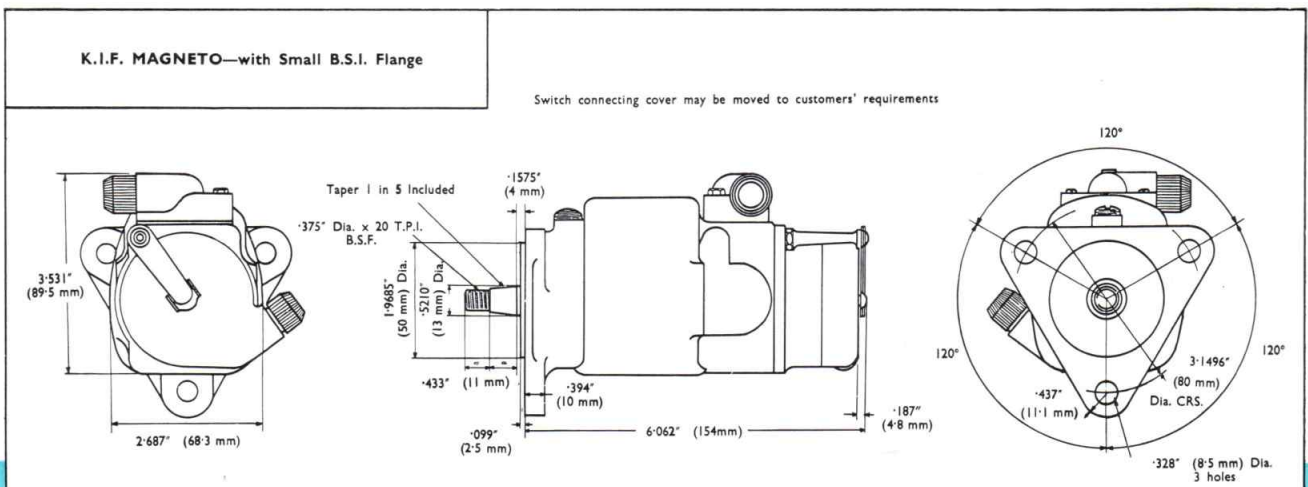
Contact breaker points. The standard points are of tungsten, whilst platinum points are supplied for competition and marine finished machines.

Sparking speed. Regular sparking performance is obtained from a minimum of 120 r.p.m. to a maximum of over 4,000 r.p.m.

Competition machines. The well known and highly successful Lucas Competition Magnetos are of this type. These machines, which are "hand made" and have several special features incorporated in their design, have been developed primarily for trials purposes, where complete immersion of the magneto must be considered. The body is of aluminium, all joints are hermetically sealed and there are no vent holes in the body. The contact breaker is ventilated by a rubber tube, running from a union on the end cover to a point on the motor cycle above any anticipated water level.



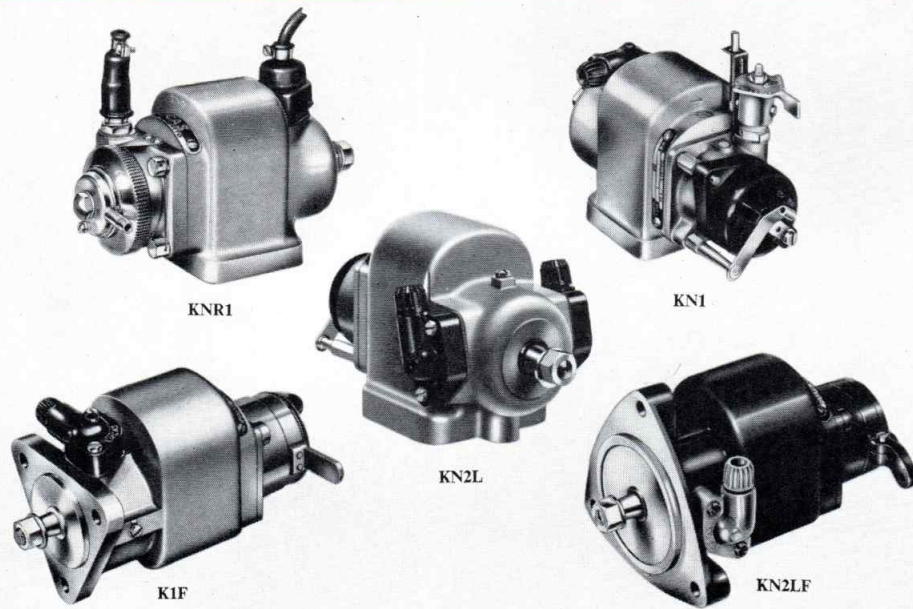
Alternative Base Mountings are shown in the Mounting Guide, pages H1 to H8.



Alternative Flange Mountings are shown in the Mounting Guide, pages H1 to H8.



LUCAS KF & N MAGNETOS



ORDERING DETAILS

Magneto Model	Service No.	No. of Cylinders	Rotation	Fixing	*Mounting No.	Timing Control	Special Notes
N1	42005	1	C	Base 35 mm.	14	R.H. Cable	Slot Fixing
N1	42009	1	C	Base 35 mm.	13	R.H. Cable	
N1	42037	1	C	Base 35 mm.	14	Fixed	Slot Fixing
N1L	42077	1	C	Base 35 mm.	14	Fixed	Slot Fixing
N1	42018	1	AC	Base 35 mm.	14	R.H. Cable	Slot Fixing
N1	42020	1	AC	Base 35 mm.	13	L.H. Cable	Slot Fixing
N1	42036	1	AC	Base 35 mm.	14	Fixed	Slot Fixing
N1	42272	1	AC	Base 35 mm.	13	R.H. Cable	
N2	42062	2	C	Base 35 mm.	13	Fixed	Marine Finish
N2	42095	2	C	Base 35 mm.	13	Screw	
N2	42140	2	C	Base 35 mm.	13	Lever	
N2	42063	2	AC	Base 35 mm.	13	Fixed	
KN1	42041	1	C	Base 45 mm.	15	R.H. Cable	
KN1	42118	1	C	Base 45 mm.	15	Ratchet	
KN1	42040	1	AC	Base 45 mm.	15	L.H. Cable	
KN1	42044	1	AC	Base 45 mm.	15	Fixed	
KN1	42051	1	AC	Base 45 mm.	15	Ratchet	
KN1L	42128	1	AC	Base 45 mm.	15	L.H. Cable	
KNV	42055	2	C	Base 45 mm.	15	R.H. Cable	60° 'V' Twin
KNV	42081	2	C	Base 45 mm.	15	Ratchet	60° 'V' Twin
KNV	42096	2	C	Base 45 mm.	15	R.H. Cable	50° 'V' Twin
KNV	42052	2	AC	Base 45 mm.	15	L.H. Cable	50° 'V' Twin
KNV	42056	2	AC	Base 45 mm.	15	Ratchet	60° 'V' Twin
KN2L	42065	2	C	Base 45 mm.	15	R.H. Cable	
KN2L	42066	2	AC	Base 45 mm.	15	Fixed	
K1F	42182	1	C	Flange	31	Fixed	Used with Auto Advance
K1F	42133	1	AC	Flange	31	Fixed	Used with Auto Advance
K1F	42183	1	AC	Flange	31	R.H. Cable	
K2F	42230	2	AC	Flange	31	R.H. Cable	
K2F	42248	2	AC	Flange	31	Fixed	Used with Auto Advance
K2F	42263	2	AC	Flange	31	R.H. Cable	
KVF	42134	2	C	Flange	31	Fixed	Used with Auto Advance 50° Twin
KN1LF	42061	1	C	Flange	31	Lever	
KN1LF	42120	1	C	Flange	28	Lever	Marine Finish
KN1LF	42058	1	AC	Flange	28	L.H. Cable	
KN2LF	42116	2	C	Flange	28	Lever	Marine Finish
COMPETITION MAGNETOS							
NR1	42179	1	AC	Base 35 mm.	13	R.H. Cable	Fitted to:
KNR1	42123	1	AC	Base 45 mm.	15	R.H. Cable	A.J.S. and Matchless
KNR1	42157	1	AC	Base 45 mm.	15	R.H. Cable	B.S.A. (dowel fixing)
K1FR	42190	1	AC	Flange	31	R.H. Cable	Ariel, Norton, Enfield
K1FR	42231	1	AC	Flange	31	R.H. Cable	'Panther'
K2FR	42229	2	AC	Flange	31	R.H. Cable	Cooper (J.A.P.)
							Ariel, Norton, Triumph

* See Mounting Guide (Pages H1 to H8)



LUCAS KF & N MAGNETOS

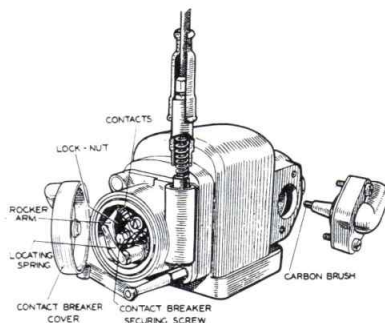
MAINTENANCE

LUBRICATION

These magnetos have their ball bearings packed with grease before leaving the works and need no further lubrication until the magneto is stripped for overhaul.

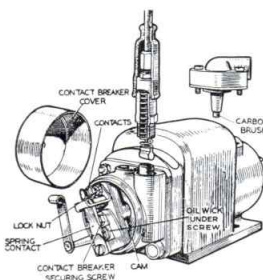
RING TYPE CAMS

All twin cylinder and some single cylinder magnetos are fitted with ring type cams, which are lubricated by a felt pad held in the cam housing. Every 3,000 miles, remove the contact breaker cover, slide the cam out of its housing and add a few drops of thin machine oil to the felt pad. When replacing the cam, line up the location in the back edge of the cam with the pegs in the cam housing and push firmly home.



FACE TYPE CAMS

Every 5,000 miles, remove the contact breaker cover, take out the screw holding the moving contact spring arm and withdraw the screw carrying the wick. Add a few drops of thin machine oil to the wick.



TAKE CARE TO PREVENT OIL GETTING ON OR NEAR THE CONTACTS.

CLEANING AND CONTACT ADJUSTMENT

Occasionally remove and clean pick-up and make sure pick-up brush moves freely in its holder. Turn the engine over slowly by hand and hold a soft dry cloth lightly against the slip ring with a suitable piece of wood to clean off any carbon, dust or oil deposit.

If contacts are burned or dirty, clean them with a fine carborundum

stone or very fine emery cloth. (The contact breaker assembly on ring cam types can be completely removed to simplify this operation; with face cams, it is only necessary to unscrew the moving contact and spring arm.)

Every 3,000 miles check the contact gap, and if necessary adjust to .012"-.015" (.3 mm.).

FAULT LOCATION

This fault location guide gives a simple yet thorough check of the ignition system.

Possible causes and methods of detection

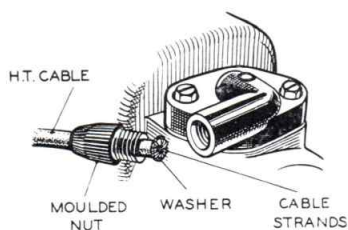
Remedy

1. ENGINE WILL NOT FIRE

- | | |
|--|--|
| (a) Controls not set correctly for starting. | (a) See that ignition is switched on, petrol turned on and everything is in order for starting. |
| (b) Dirty or pitted contacts. | (b) Clean contacts and reset. |
| (c) Contact breaker out of adjustment. Turn engine until contacts are fully opened and test gap. | (c) Adjust gap to .012"-.015". |
| (d) High tension cables perished or worn. | (d) Renew cables. |
| (e) Contact breaker rocker arm sticking (ring cam type). | (e) Remove contact breaker and prise rocker arm off its bearing. Polish steel pin with fine emery cloth, clean carefully and <i>lightly</i> smear with Mobilgrease No. 2, or clean engine oil, before replacing. |
| (f) Pick-up brush worn or broken. | (f) Fit new brush. Before fitting—clean slip ring track. |

2. ENGINE MISFIRES

- | | |
|---|--|
| (a) Dirty or pitted contacts. | (a) Clean contacts. |
| (b) Contact breaker out of adjustment. Turn engine until contacts are fully opened and test gap. | (b) Adjust gap to .010"-.012". |
| (c) Defects in the H.T. circuit. Remove sparking plug or plugs, rest on cylinder head and observe whether a spark occurs when engine is turned. | (c) If sparking is irregular: Clean plugs and adjust gap to about .020". Replace H.T. cables if insulation shows signs of deterioration or cracking. If sparking is regular the trouble is probably due to engine defects. |



REFITTING HIGH TENSION CABLES

Occasionally inspect the cables from the moulded pick-up to the sparking plugs, replacing any which have the insulation cracked or damaged with 7 mm. neoprene covered ignition cable.

Unscrew the moulded nut and remove the spring washer from the end of the old cable. Cut a new cable of suitable length and remove the insulation for approximately $\frac{1}{4}$ "; spread the cable strands over the washer and screw the moulded nut home tightly.

IF THESE TESTS DO NOT REVEAL THE DIFFICULTY, REMOVE THE MAGNETO FOR BENCH TESTING BY YOUR LUCAS AGENT



Section L

LUCAS

SPARE PARTS

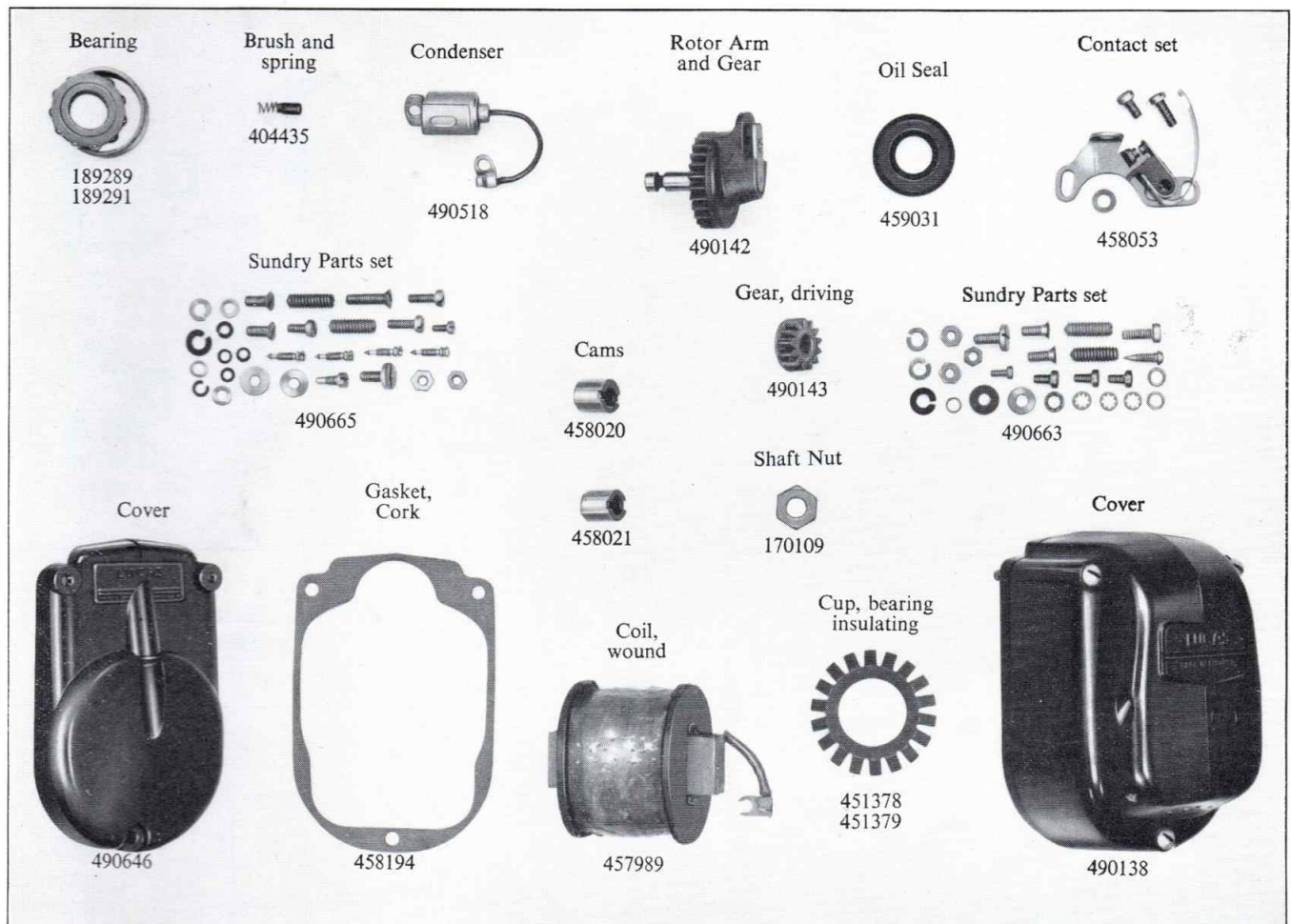
NOTE

Spare Parts listed here are for magnetos in current production. For "Older Pattern" magnetos refer to Section M.

SPARE PARTS



SR TYPE MAGNETOS



DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS							
	42281A	42283A	42284A	42287A	42288A	42289A	42290A	42291A
Cover	490646	490646	490646	490646	490646	490646	490138	490138
Brush and spring	—	—	—	—	—	—	404435	404435
Gasket	458194	458194	458194	458194	458194	458194	458194	458194
Rotor arm and gear	—	—	—	—	—	—	490142	490142
Condenser	490518	490518	490518	490518	490518	490518	490518	490518
Contact set	458053	458053	458053	458053	458053	458053	458053	458053
Bearing, C.B. end	189289	189289	189289	189289	189289	189289	189289	189289
Cup, C.B. bearing insulating	451378	451378	451378	451378	451378	451378	451378	451378
Gear, driving	—	—	—	—	—	—	490143	490143
Cam	458020	458020	458020	458020	458020	458020	458021	458021
Nut, shaft	170109	170109	170109	170109	170109	170109	170109	170109
Bearing, body	189291	189291	189291	189291	189291	189291	189291	189291
Cup, body bearing insulating	451379	451379	451379	451379	451379	451379	451379	451379
Oil seal	459031	459031	459031	459031	459031	459031	459031	459031
Coil, wound	457989	457989	457989	457989	457989	457989	457989	457989
Sundry parts, set	490663	490663	490663	490663	490663	490663	490665	490665

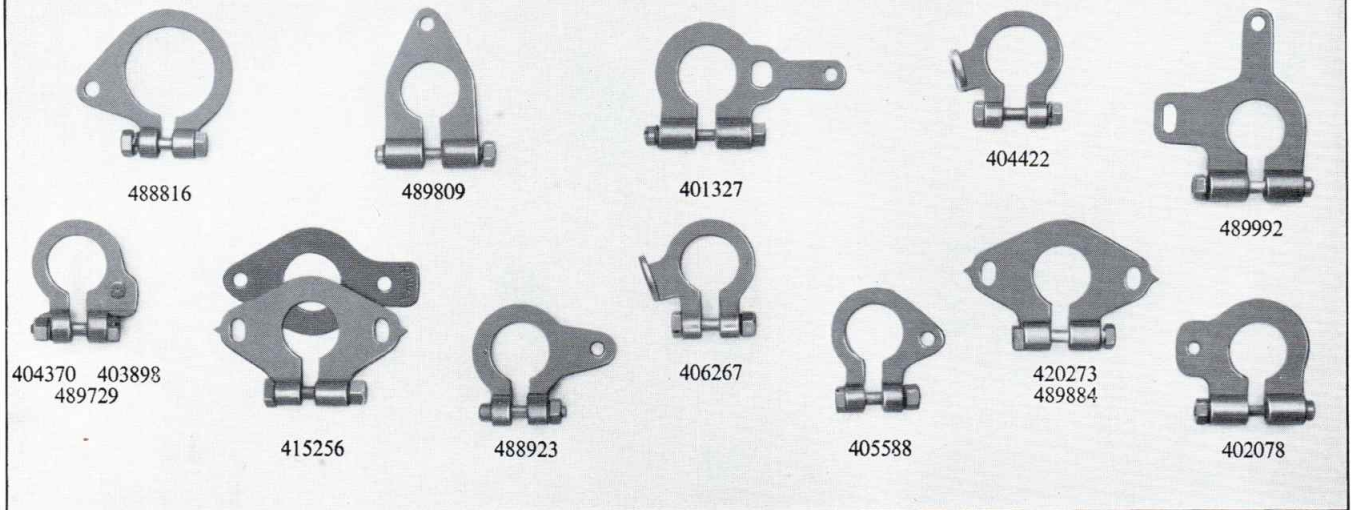
NOTE:—For Impulse Starter Spare Parts see page L13



SPARE PARTS

VRA, VRS and 8WRSF TYPE MAGNETOS

SECURING PLATES

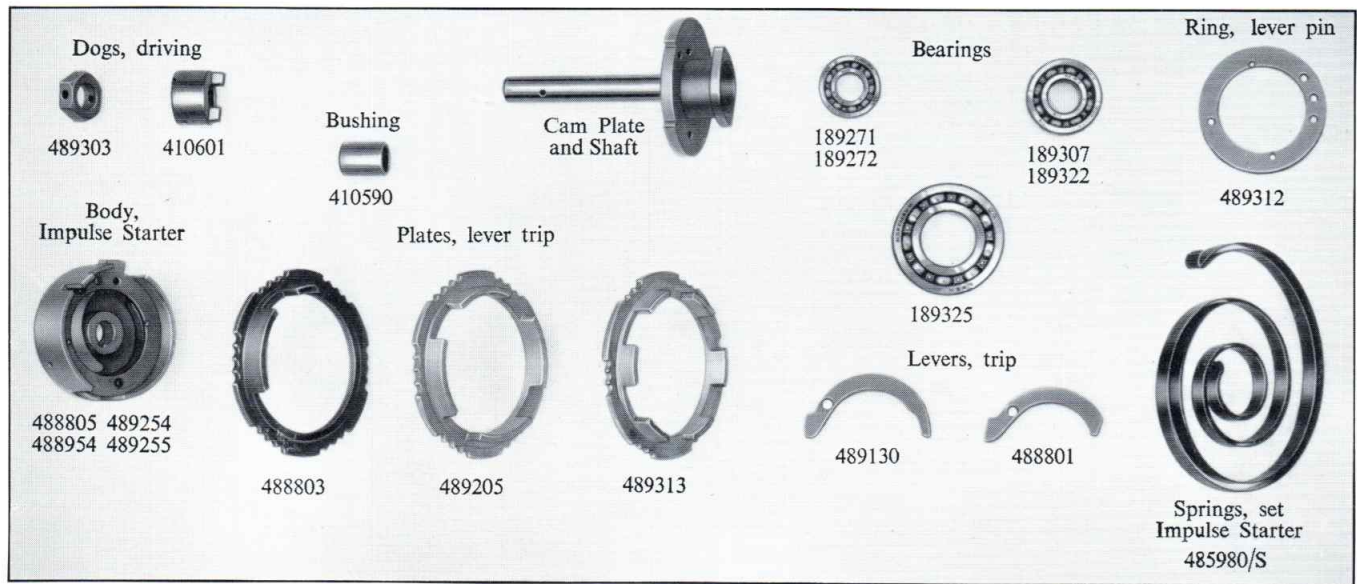


DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS								
	44003F	44007E	44009E	44015E	44024D	44035F	44037F	44043D	44046A
Plate, securing	489809	489809	488816	—	—	401327	—	404370	—
Dog, driving	—	—	—	—	489303	—	—	—	—
Bearing, base	—	—	—	—	189307	—	—	—	—
Bushing, bearing	410590	410590	410590	410590	410590	410590	410590	410590	410590
IMPULSE STARTER DETAILS									
Plate, lever, trip	—	—	489205	—	—	489205	489205	—	488803
Cam plate and shaft	—	—	489175	—	—	489177	489176	—	488807
Springs, set	—	—	485980/S	—	—	485980/S	485980/S	—	485980/S
Body, impulse starter	—	—	489255	—	—	489254	488954	—	488805
Lever, trip	—	—	489130	—	—	489130	488801	—	488801
									*489312
AUTO-ADVANCE DETAILS									
Shaft and action plate	488753	488753	—	489161	—	—	—	488753	—
Springs, set	489662	488245/S	—	489662	—	—	—	489662	—
Weights, large	488583	488583	—	488583	—	—	—	488583	—
Weights, small	488581	488607	—	488581	—	—	—	488581	—
Toggles	488054	488054	—	488054	—	—	—	488054	—
Foot, rotor	488060	488060	—	488060	—	—	—	488060	—
Cap, distributor	488659	488659	488659	488659	488659	488659	488659	488659	488858
Brush and spring	404435	404435	404435	404435	404435	404435	404435	404435	404435
Rotor or speed limiter	410288	410291	410285	410292	489916	489912	489916	489912	410293
Base, contact breaker	489616	489616	489616	489616	489890	489617	489616	489616	489149
Contact set	488657	488657	488657	488657	488657	488657	488657	488657	488853
Condenser	418114	418114	418114	418114	418114	418114	418114	418114	400308
Housing with bearing	489944	489944	489944	489944	—	489944	489944	489944	488639
Rotor, magnetic	488644	488644	488644	488644	488653	488644	488644	488644	—
Cam	488527	488527	488528	488527	488528	488527	488528	488527	488691
Bearing	189322	189322	189272	189322	189322	189272	189272	189322	189325
			*189322			*189322	*189322		†189271
Cover, coil	489725	489725	489725	489725	489725	489725	489725	489725	489725
Coil	489922	489922	489922	489922	489922	489922	489922	489922	489922
Sundry Parts set, all models, 488888			* Contact Breaker End			* Contact Breaker end	* Contact Breaker End		* Ring, Lever Pin † Contact Breaker End

SPARE PARTS



VRA, VRS and 8WRSF TYPE MAGNETOS—continued

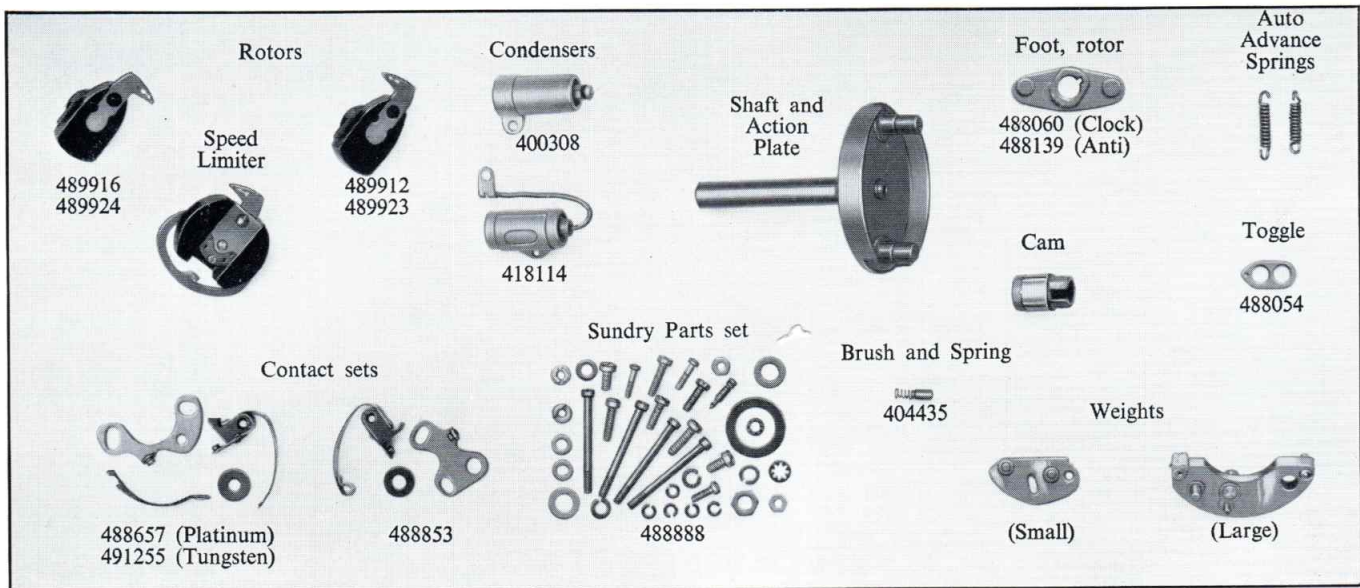


DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS								
	44058B	44065D	44066M	44076D	44084K	44085E	44088B	44089A	44107H
Plate, securing	488923	—	—	489729	488816	—	405588	402078	489809
Dog, driving	—	—	—	—	—	—	410601	410601	410601
Bearing, base	189307	—	—	—	—	—	—	—	—
Bushing, bearing	410590	410590	410590	410590	410590	410590	410590	410590	410590
IMPULSE STARTER DETAILS									
Plate, lever, trip	—	489205	—	—	—	489205	—	—	—
Cam plate and shaft ..	—	489175	—	—	—	489326	—	—	—
Springs, set	—	485980/S	—	—	—	485980/S	—	—	—
Body, impulse starter ..	—	489255	—	—	—	489254	—	—	—
Lever, trip	—	489130	—	—	—	489130	—	—	—
AUTO-ADVANCE DETAILS									
Shaft and action plate ..	—	—	488755	488753	488755	—	488751	488751	488847
Springs, set	—	—	488232/S	489662	408534/S	—	488651	488843/S	489348
Weights, large	—	—	488595	488583	488595	—	488595	488595	488583
Weights, small	—	—	488592	488581	488608	—	488592	488608	488607
Toggles	—	—	488054	488054	488054	—	488054	488054	488054
Foot, rotor	—	—	488139	488060	488139	—	488139	488139	488060
Cap, distributor	488659	488659	488659	489873	488659	488659	488659	488659	488659
Brush and spring	404435	404435	404435	404435	404435	404435	404435	404435	404435
Rotor or speed limiter ..	489912	410297	489916	489923	489916	489912	489916	489916	489912
Base, contact breaker ..	489616	489616	489616	489616	489616	489618	489616	489616	489837
Contact set	488657	488657	488657	488657	488657	488657	488657	488657	488657
Condenser	418114	418114	418114	418114	418114	418114	418114	418114	418114
Housing with bearing ..	—	489944	489944	489944	489944	489944	489944	489944	489944
Rotor, magnetic	488653	488644	488644	488644	488644	488644	488644	488644	488644
Cam	488527	488528	488528	488527	488528	488527	488528	488528	488527
Bearing	189322	189272	189322	189322	*189322	189272	189322	189322	189322
		*189322				*189322			
Cover, coil	489725	489725	489725	489725	489725	489725	489725	489725	489725
Coil	489922	489922	489922	489922	489922	489922	489922	489922	489922
Sundry Parts set, all models, 488888		* Contact Breaker End			* Contact Breaker End	* Contact Breaker End			



SPARE PARTS

VRA, VRS and 8WRSF TYPE MAGNETOS—continued



DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS								
	44109B	44116D	44120E	44127E	44131B	44132D	44137B	44139B	44140B
Plate, securing	489992	405588	404422	403898	415256	415256	—	489729	489729
Dog, driving	—	—	—	410601	410601	—	410601	410601	410601
Bearing, base	—	—	—	—	—	—	—	—	—
Bushing, bearing	410590	410590	410590	410590	410590	410590	410590	410590	410590
IMPULSE STARTER DETAILS									
Plate, lever, trip	—	489313	—	489205	—	489205	—	—	—
Cam plate and shaft	—	489315	—	489176	—	489968	—	—	—
Springs, set	—	485980/S	—	485980/S	—	485980/S	—	—	—
Body, impulse starter	—	489254	—	488954	—	488805	—	—	—
Lever, trip	—	489130	—	488801	—	488801	—	—	—
AUTO-ADVANCE DETAILS									
Shaft and action plate	488753	—	488847	—	488847	—	488751	488847	488847
Springs, set	488651	—	491169	—	488232/S	—	416163/S	408534/S	416162/S
Weights, large	488583	—	488583	—	488583	—	488595	488583	488583
Weights, small	488581	—	488581	—	488607	—	489388	488607	488607
Toggles	488054	—	488054	—	488054	—	488054	488054	488054
Foot, rotor	488060	—	488060	—	488060	—	488139	488060	488060
Cap, distributor	488660	489882	488659	488659	488659	488659	488659	488659	488659
Brush and spring	404435	404435	404435	404435	404435	404435	404435	404435	404435
Rotor or speed limiter	489912	489923	489912	489916	489912	489912	489916	489912	489912
Base, contact breaker	489616	489870	489616	489618	489837	489616	489616	489616	489616
Contact set	488657	488657	488657	488657	488657	488657	488657	488657	488657
Condenser	418114	418114	418114	418114	418114	418114	418114	418114	418114
Housing with bearing	489944	489944	489944	489944	489944	489944	489944	489944	489944
Rotor, magnetic	488645	488645	488644	488644	488644	488644	488644	488644	488644
Cam	488073	488073	488527	488528	488527	488527	488528	488527	488527
Bearing	189322	189272	189322	189272	189322	189272	189322	189322	189322
		*189322		*189322		*189322			
Cover, coil	489725	489725	489725	489725	489725	489725	489725	489725	489725
Coil	489922	489922	489922	489922	489922	489922	489922	489922	489922
Sundry Parts set, all models, 488888		* Contact Breaker End		* Contact Breaker End		* Contact Breaker End			

SPARE PARTS



VRA, VRS and 8WRSF TYPE MAGNETOS—continued

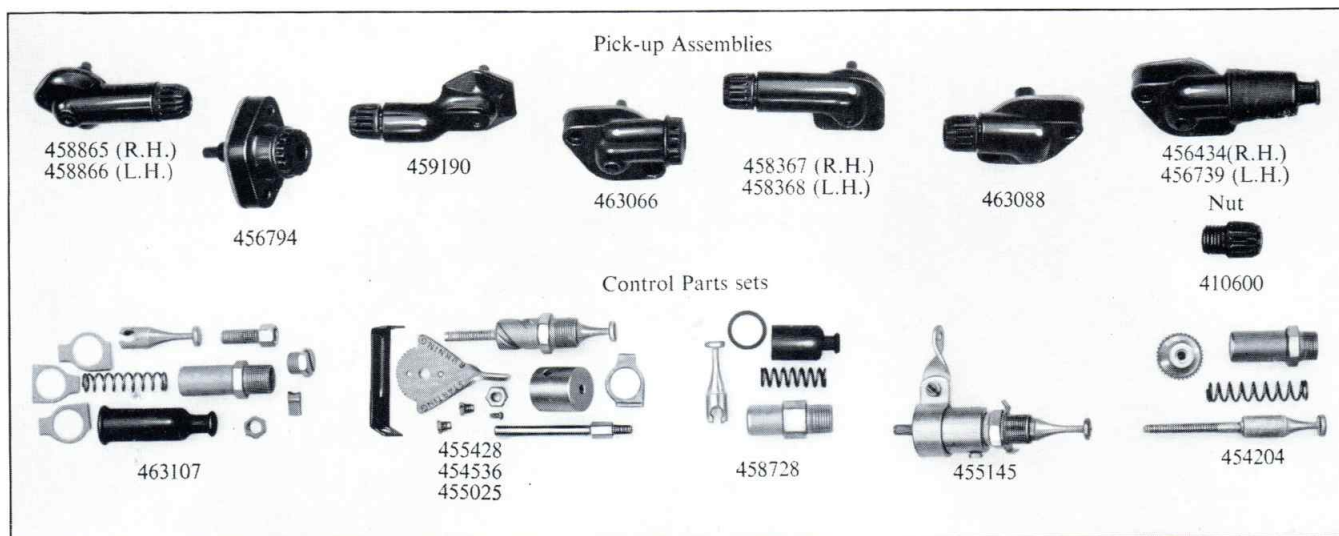


DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS								
	44141B	44142E	44145F	44147A	44149A	44153B	44156A	44157B	44158B
Plate, securing	—	—	488923	489884	491004	—	406267	420273	420273
Dog, driving	410601	410601	410601	—	—	410601	—	410601	410601
Bearing, base	—	—	—	—	—	—	—	—	—
Bushing, bearing	410590	410590	410590	410590	410590	410590	410590	410590	410590
IMPULSE STARTER DETAILS									
Plate, lever, trip	—	—	—	489313	—	489205	—	—	—
Cam plate and shaft	—	—	—	489177	—	489176	—	—	—
Springs, set	—	—	—	485980/S	—	485980/S	—	—	—
Body, impulse starter	—	—	—	489254	—	488954	—	—	—
Lever, trip	—	—	—	489130	—	488801	—	—	—
AUTO-ADVANCE DETAILS									
Shaft and action plate	488847	488847	488847	—	488751	—	488751	488847	488847
Springs, set	420213	488232/S	491522	—	488232/S	—	491521	488651	489686/S
Weights, large	488583	488595	488583	—	488595	—	488595	488583	488583
Weights, small	488607	488592	488581	—	488592	—	488608	488581	488607
Toggles	488054	488054	488054	—	488054	—	488054	488054	488054
Foot, rotor	488060	488139	488060	—	488139	—	488139	488060	488060
Cap, distributor	489873	489882	488659	489882	488660	419639	488660	419639	419639
Brush and spring	404435	404435	404435	404435	404435	404435	404435	404435	404435
Rotor or speed limiter	489923	489924	410291	489923	489916	489916	489916	489912	489912
Base, contact breaker	489616	489616	489616	489870	489616	489837	489616	489616	489616
Contact set	488657	488657	488657	488657	488657	491255	488657	488657	488657
Condenser	418114	418114	418114	418114	418114	418114	418114	418114	418114
Housing with bearing	489944	489944	489944	489944	489944	489944	489944	489944	489944
Rotor, magnetic	488644	488645	488644	488645	488645	489829	488645	488644	488644
Cam	488527	488073	488527	488073	488073	491056	488073	488527	488527
Bearing	189322	189322	189322	189272	189322	189272	189322	189322	189322
				*189322		*189322			
Cover, coil	489725	489725	489725	489725	489725	489725	489725	489725	489725
Coil	489723	489922	489922	489922	489922	489922	489922	489922	489922
Sundry Parts set, all models, 488888				* Contact Breaker End		* Contact Breaker End			



SPARE PARTS

K and N TYPE MAGNETOS

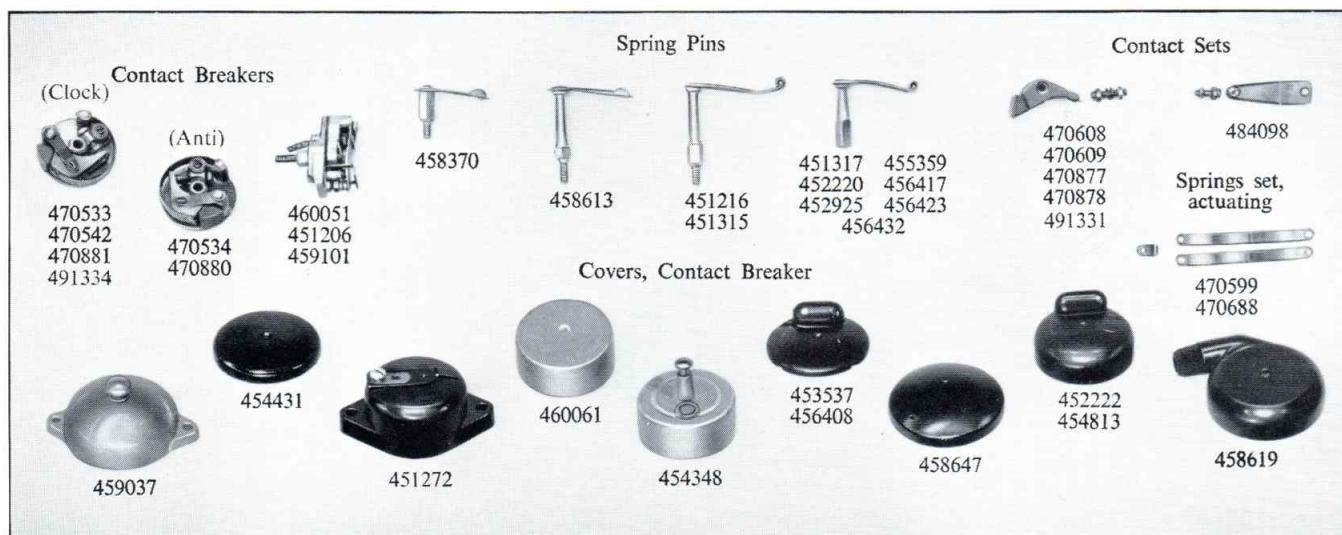


DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS								
	42005D	42009D	42018D	42020E	42036B	42037D	42040B	42041A	42044B
Pick-up assembly	463066	463066	463066	456794	463066	463066	463066	463066	463066
Brush and spring	451260	451260	451260	451260	451260	451260	451260	451260	451260
Nut, moulded	410600	410600	410600	410600	410600	410600	410600	410600	410600
Cover, contact breaker ..	460061	460061	460061	460061	454348	454348	460061	460061	460061
Contact set	484098	484098	484098	484098	484098	484098	484098	484098	484098
Contact breaker	460051	460051	460051	460051	451206	451206	460051	460051	460051
Spring set, actuating ..	—	—	—	—	—	—	—	—	—
Ring, jump, cam fixing ..	455347	455347	—	455347	455347	455347	455347	455347	455347
Cam	455344	455344	455343	455343	455346	455345	455343	455344	455346
Control parts, set	463107	463107	463107	463107	—	—	463107	463107	—
Timing lever	—	—	—	—	—	—	—	—	—
Plate, with outer race ..	454177	454177	454177	454600	454178	454178	454600	454177	454178
Cup, bearing insulating ..	451379	451379	451379	451379	451379	451379	451379	451379	451379
Spring pin	451315	451315	451315	451315	455359	455359	451315	451315	451315
Nut, shaft	170104	170104	170104	170104	170104	170104	170104	170104	170104
Armature	454385	454385	454385	454385	454385	454385	454385	454385	454385
Slip ring	454496	454496	454496	454496	454496	454496	454496	454496	454496
Bearing	189291	189291	189291	189291	189291	189291	189291	189291	189291
Brush, spring and holder ..	455191	455191	455191	455191	455191	455191	455191	455191	455191
Brush and spring, earth ..	455190	455190	455190	455190	455190	455190	455190	455190	455190
Sundry parts, set	454697	454697	454697	454697	454697	454697	454697	454697	454697

SPARE PARTS



K and N TYPE MAGNETOS—continued



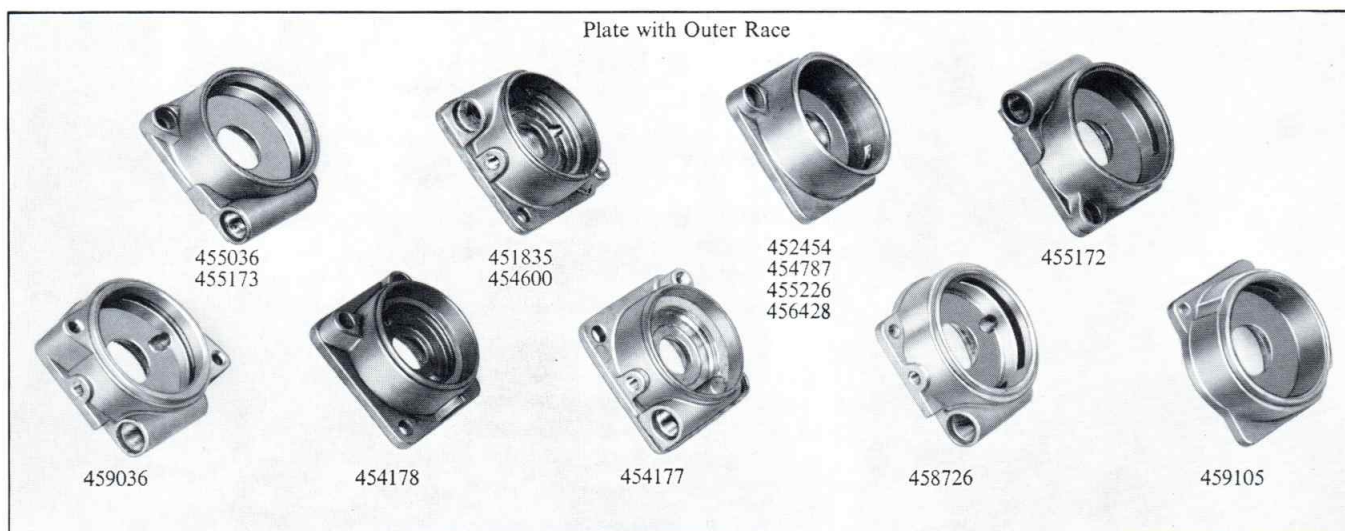
DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS									
	42051E	42052B	42055B	42056B	42058B	42061A	42062F	42063E	42065D	42066B
Pick-up assembly	463066	463066 *463088	463066 *463088	463066 *463088	463088	463066	456739 *456434	456739 *456434	463066 *463088	463066 *463088
Brush and spring	451260	451260	451260	451260	451260	451260	451260	451260	451260	451260
Nut, moulded	410600	410600	410600	410600	410600	410600	410600	410600	410600	410600
Cover, contact breaker ..	451272	454431	452222	454431	454431	453537	452222	452222	452222	452222
Contact set	484098	470609	470608	470609	470609	470608	491331	470878	470877	470609
Contact breaker	460051	470534	470533	470534	470534	470533	491334	470880	470542	470534
Spring set, actuating ..	—	470688	470688	470688	470688	470688	470599	470599	470688	470688
Ring, jump, cam fixing ..	455347	—	—	—	—	—	—	—	—	—
Cam	455343	455433	455435	455433	456686	456687	456919	456919	454768	456919
Control parts, set	455428	463107	463107	454536	463107	—	—	—	455145	—
Timing lever	—	—	—	—	—	487591	—	—	—	—
Plate, with outer race ..	451835	455172	455173	455173	455172	454787	456428	456428	455173	452454
Cup, bearing insulating ..	451379	451379	451379	451379	451379	451379	451379	451379	451379	451379
Spring pin	451216	452220	452925	452220	452220	452925	456432	456432	452925	452925
Nut, shaft	170104	170104	170104	170104	170104	170104	170109	170109	170104	170104
Armature	454385	456421	456422	456421	456413	456413	456422	456421	456422	456421
Slip ring	454496	454497	455361	454497	454496	454496	455361	454497	455361	454497
Bearing	189291	189291	189291	189291	189291	189291	189291	189291	189291	189291
Brush, spring and holder	455191	455191	455191	455191	455191	455191	456737	456737	455191	455191
Brush and spring, earth ..	455190	455190 †470537	455190 †470537	455190 †470537	455190 *470537	455190 *470537	455190 †470537	455190 †470537	455190 †470537	455190 †470537
Sundry parts, set	454697	454697	454697	454697	454697	454697	454697	454697	454697	454697
		* Right Hand † For Contact Breaker	* Right Hand † For Contact Breaker	* Right Hand † For Contact Breaker	* For Contact Breaker	* For Contact Breaker	* Right Hand † For Contact Breaker	* Right Hand † For Contact Breaker	* Right Hand † For Contact Breaker	* Right Hand † For Contact Breaker



SPARE PARTS

K and N TYPE MAGNETOS—continued

Plate with Outer Race

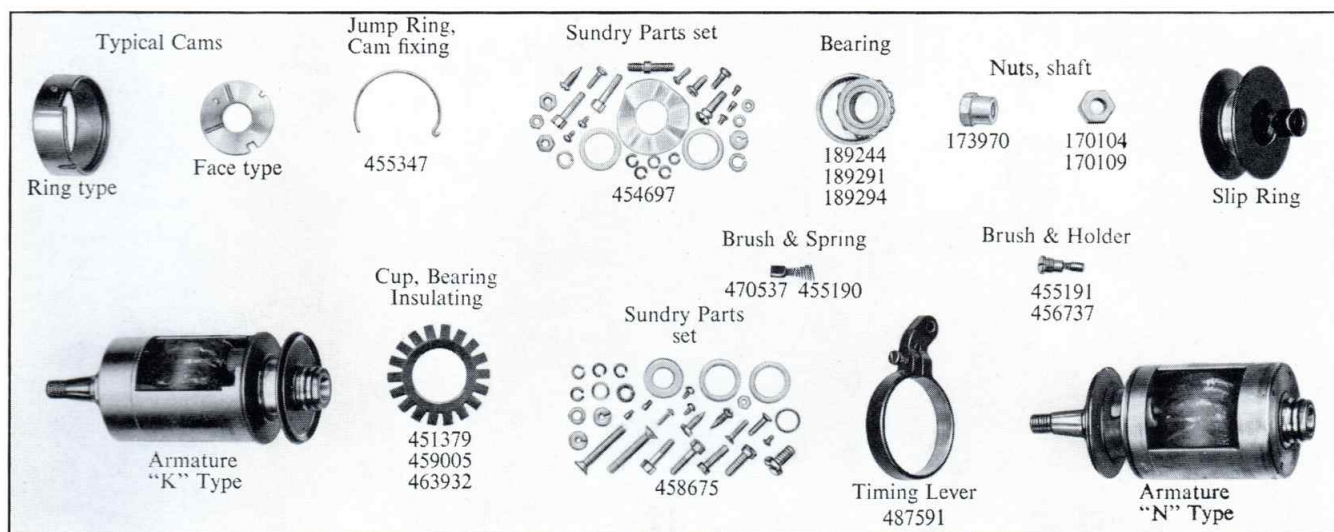


DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS							
	42077B	42081B	42095D	42096B	42116D	42118D	42120D	42128B
Pick-up assembly	463066	463066 *463088	463066 *463088	463066 *463088	463066 *463088	463066	463088	463066
Brush and spring	451260	451260	451260	451260	451260	451260	451260	451260
Nut, moulded	410600	410600	410600	410600	410600	410600	410600	410600
Cover, contact breaker ..	454431	452222	452222	454431	456408	452222	456408	454431
Contact set	470608	470608	470608	470608	470877	470877	470877	470609
Contact breaker	470533	470533	470533	470533	470881	470542	470881	470534
Spring set, actuating ..	470688	470688	470688	470688	470599	470688	470599	470688
Ring, jump, cam fixing ..	—	—	—	—	—	—	—	—
Cam	456688	455435	454819	455434	454834	456685	456687	456686
Control parts, set	—	455025	454204	463107	—	455145	—	463107
Timing lever	—	—	—	—	487591	—	487591	—
Plate, with outer race ..	452454	455036	455173	455173	454787	455173	454787	455172
Cup, bearing insulating ..	451379	451379	451379	451379	451379 †463932 456423	451379	451379	451379
Spring pin	452220	452925	452925	452220	452925	452925	456417	452220
Nut, shaft	170104	170104	170104	173970	170104	170104	170104	170104
Armature	456673	456422	456422	456422	456422	456413	456413	456413
Slip ring	454496	455361	455361	455361	455361	454496	464277	454496
Bearing	189291	189291	189291	189291	189291 †189294	189291	189291	189291
Brush, spring and holder ..	455191	455191	455191	455191	455191	455191	455191	455191
Brush and spring, earth ..	455190 *470537	455190 †470537	455190 †470537	455190 †470537	455190 †470537	455190 *470537	455190 *470537	455190 *470537
Sundry parts, set	454697	454697	454697	454697	454697	454697	454697	454697
	* For Contact Breaker	* Right Hand † For Contact Breaker	* Right Hand † For Contact Breaker	* Right Hand † For Contact Breaker	* Right Hand † Drive End ‡ For Contact Breaker	* For Contact Breaker	* For Contact Breaker	* For Contact Breaker

SPARE PARTS



K and N TYPE MAGNETOS—continued

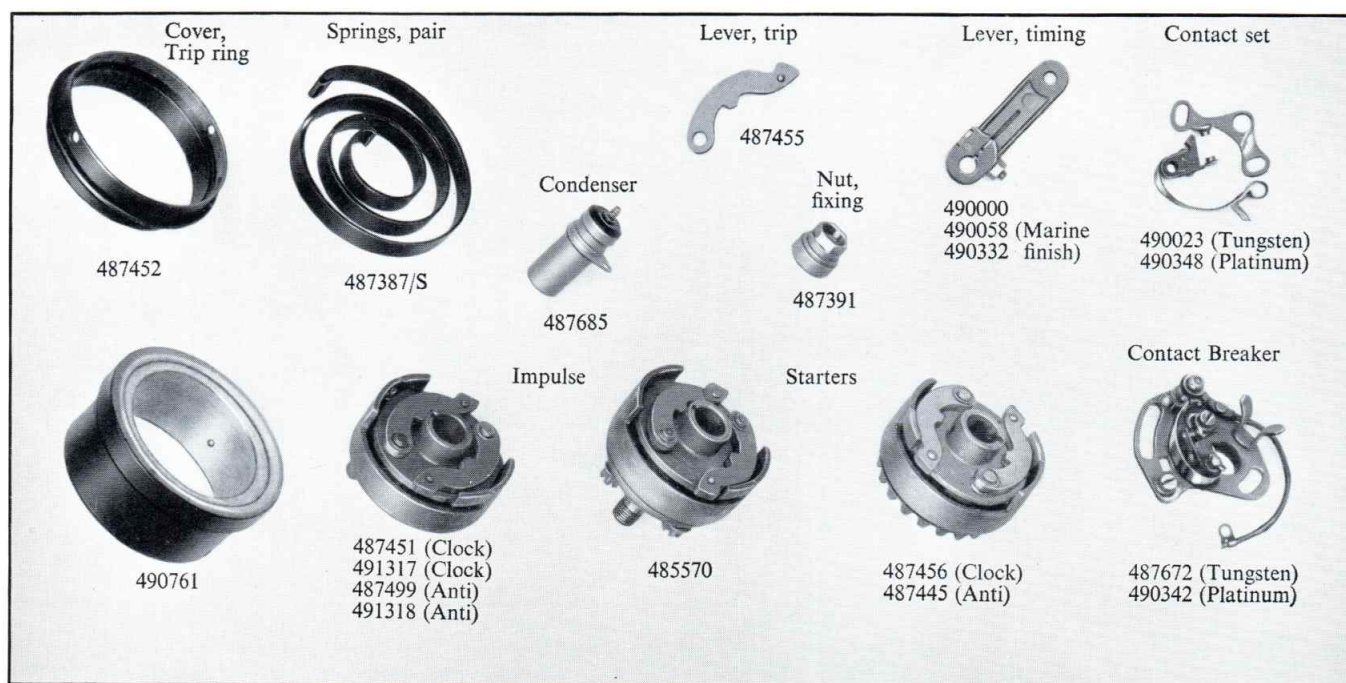


DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS								
	42133F	42134F	42140B	42182E	42183F	42230D	42248E	42263D	42272A
Pick-up assembly	456794	458368 *458367	463066 *463088	463066	456794	458368 *458367	458866 *458865	459190	463066
Brush and spring	451260	451260	451260	451260	451260	451260	451260	451260	451260
Nut, moulded	410600	410600	410600	410600	410600	410600	410600	410600	410600
Cover, contact breaker ..	458647	458647	454813	458647	458647	459037	458619	458619	460061
Contact set	470609	470877	470608	470608	470609	470609	470609	470609	484098
Contact breaker	470534	470542	470533	470533	470534	470534	470534	470534	460051
Spring set, actuating ..	470688	470688	470688	470688	470688	470688	470688	470688	—
Ring, jump, cam fixing ..	—	—	—	—	—	—	—	—	455347
Cam	459238	459155	456964	459157	459156	458725	459130	458725	455343
Control parts, set	—	—	—	—	463107	458728	—	463107	463107
Timing lever	—	—	487591	—	—	—	—	—	—
Plate, with outer race ..	459105	459105	455226	459105	458726	459036	459105	458726	454177
Cup, bearing insulating ..	451379 *459005	451379 †459005	451379	451379 *459005	451379 *459005	451379 †459005	451379 †459005	451379 *459005	451379
Spring pin	458613	458613 ‡458370	451317	458613	458613	458370	458613 ‡458370	458613 †458370	451315
Nut, shaft	170104	170104	170104	170104	170104	170104	—	170104	170104
Armature	459139	459142	456422	459139	459139	459004	459004	459004	454385
Slip ring	454496	454497	455361	454496	454496	455361	455361	455361	454496
Bearing	189291 *189244	189291 †189244	189291	189291 *189244	189291 *189244	189291 †189244	189291 †189244	189291 *189244	189291
Brush, spring and holder	455191	455191	455191	455191	455191	455191	455191	455191	455191
Brush and spring, earth ..	455190 †470537	455190 §470537	455190 †470537	455190 †470537	455190 †470537	455190	455190 §470537	455190 ‡470537	455190
Sundry parts, set	458675	458675	454697	458675	458675	458675	458675	458675	454697
	* Drive End † For Contact Breaker	* Right Hand † Drive End ‡ For Pick-up § For Contact Breaker	* Right Hand † For Contact Breaker	* Drive End † For Contact Breaker	* Drive End † For Contact Breaker	* Right Hand † Drive End	* Right Hand † Drive End ‡ For Pick-up § For Contact Breaker	* Drive End † For Pick-up ‡ For Contact Breaker	



SPARE PARTS

RF TYPE MAGNETOS

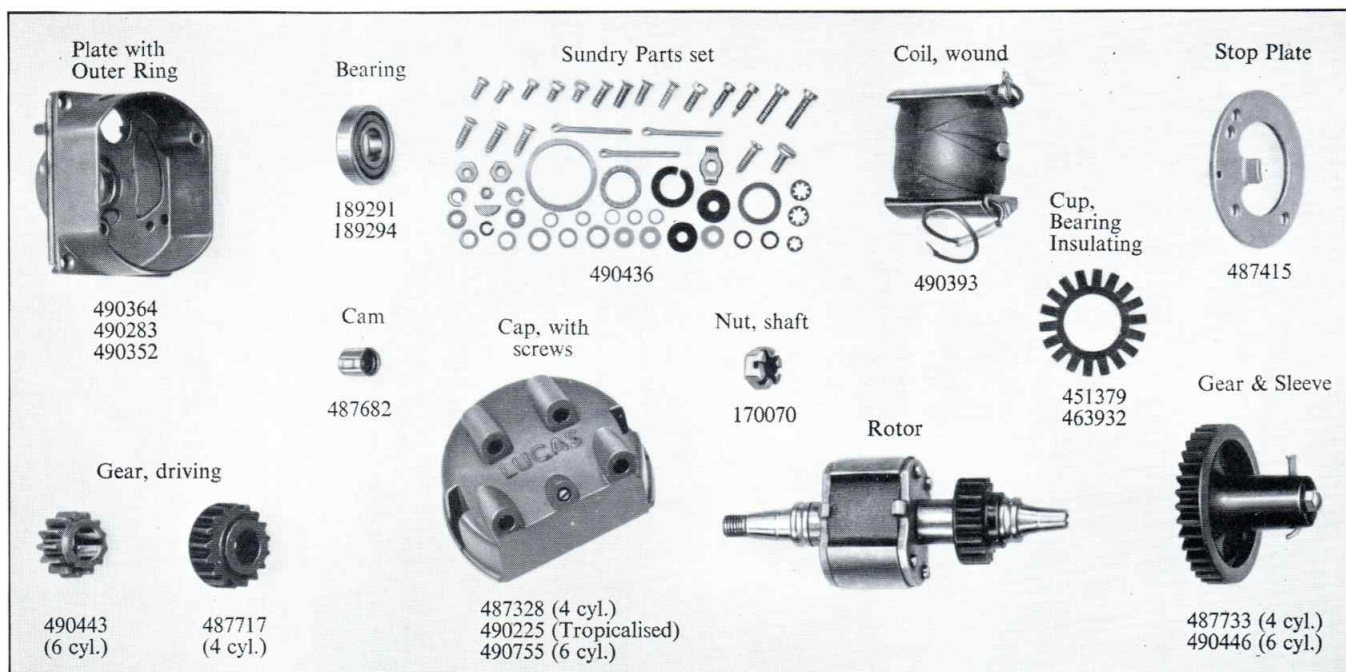


DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS						
	44020K	44080F	44087D	44090F	44106E	44110D	44112B
Impulse starter, complete	487451	487456	—	—	—	487445	487456
Springs, set	487387/S	487387/S	—	—	—	487387/S	487387/S
Nut, fixing	487391	487391	—	—	—	487391	487391
Lever, trip	487455	487455	—	—	—	487455	487455
Cover, trip ring	487452	487452	—	—	—	487452	487452
Lever, timing	490000	490058	490058	490058	490058	—	—
Contact breaker	487672	490342	490342	490342	490342	487672	490342
Contact set	490023	490348	490348	490348	490348	490023	490348
Condenser	487685	487685	487685	487685	487685	487685	487685
Plate, with outer ring	490283	490364	490352	490352	490352	490364	490364
Cup, C.B. bearing insulating	451379	451379	451379	451379	451379	451379	451379
Cap, with screws	487328	487328	487328	487328	490225	487328	487328
Gear and sleeve	487733	487733	487733	487733	487733	487733	487733
Cam	487682	487682	487682	487682	487682	487682	487682
Bearing, drive end	189294	189294	189294	189294	189294	189294	189294
Bearing, commutator end	189291	189291	189291	189291	189291	189291	189291
Rotor	490234	490234	490234	490234	490234	490362	490234
Gear, driving	487717	487717	487717	487717	487717	487717	487717
Nut, shaft	—	—	170070	170070	170070	—	—
Coil, wound	490393	490393	490393	490393	490393	490393	490393
Cup, body bearing insulating	463932	463932	—	—	—	463932	463932
Stop plate, impulse starter	487415	487415	—	—	—	487415	487415
Sundry parts, set	490436	490436	490436	490436	490436	490436	490436

SPARE PARTS



RF TYPE MAGNETOS—continued

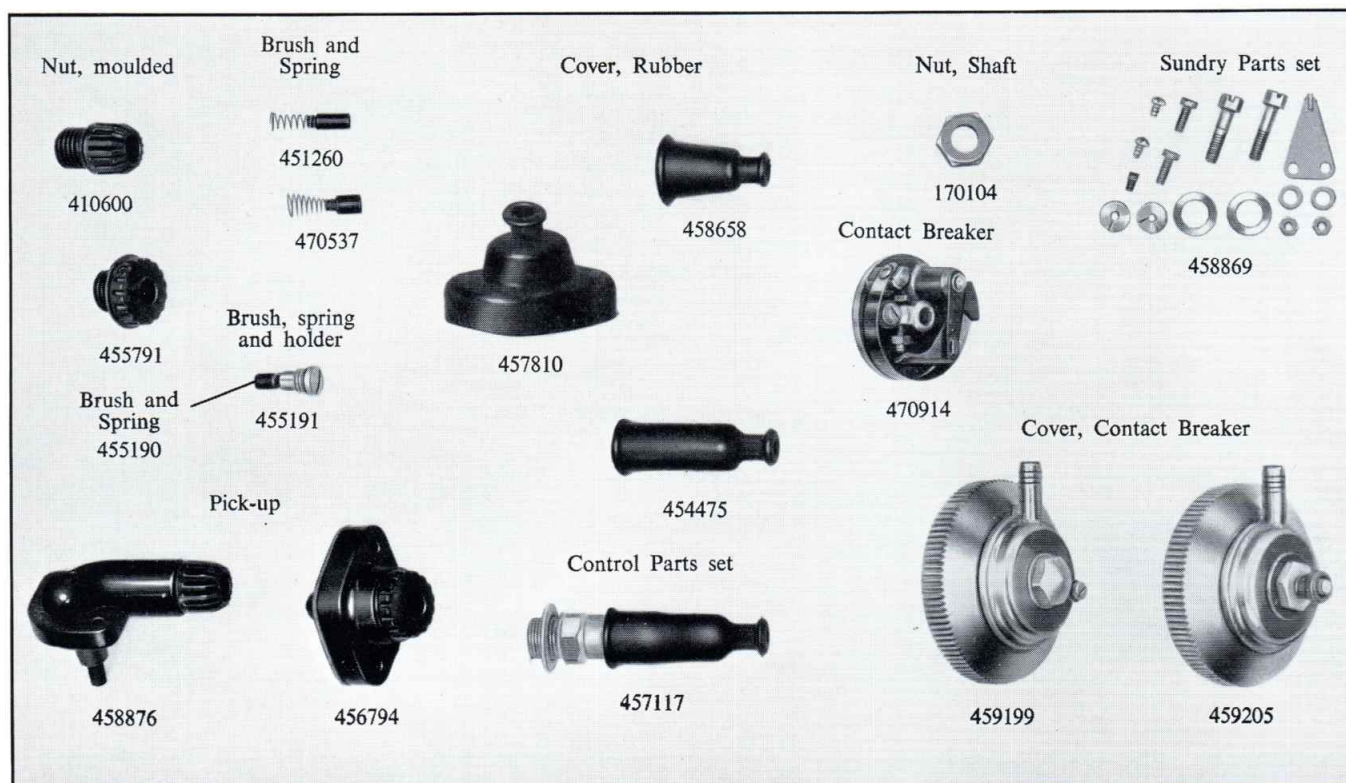


DESCRIPTION OF SPARE PART	MAGNETO AND SPARE PART ORDERING NUMBERS					
	44159A	44160A	44161A	44162A	44163A	44164A
Impulse starter, complete	—	—	487451	487499	491317	491318
Springs, set	—	—	487387/S	487387/S	487387/S	487387/S
Nut, fixing	—	—	487391	487391	487391	487391
Lever, trip	—	—	487455	487455	487455	487455
Cover, trip ring	—	—	487452	487452	487452	487452
Lever, timing	490332	490332	490332	490332	490332	490332
Contact breaker	490342	490342	490342	490342	490342	490342
Contact set	490348	490348	490348	490348	490348	490348
Condenser	487685	487685	487685	487685	487685	487685
Plate, with outer ring	490364	490364	490364	490364	490364	490364
Cup, C.B. bearing insulating ..	451379	451379	451379	451379	451379	451379
Cap, with screws	490755	490755	490755	490755	490755	490755
Gear and sleeve	490446	490446	490446	490446	490446	490446
Cam	487682	487682	487682	487682	487682	487682
Bearing, drive end	189294	189294	189294	189294	189294	189294
Bearing, commutator end	189291	189291	189291	189291	189291	189291
Rotor	490445	490445	490445	490445	490445	490445
Gear, driving	490443	490443	490443	490443	490443	490443
Nut, shaft	—	—	—	—	—	—
Coil, wound	490393	490393	490393	490393	490393	490393
Cup, body bearing insulating ..	463932	463932	463932	463932	463932	463932
Stop plate, impulse starter ..	487415	487415	487415	487415	487415	487415
Sundry parts, set	490346	490436	490436	490436	490436	490436



SPARE PARTS

SPECIAL KF and N COMPETITION MAGNETOS

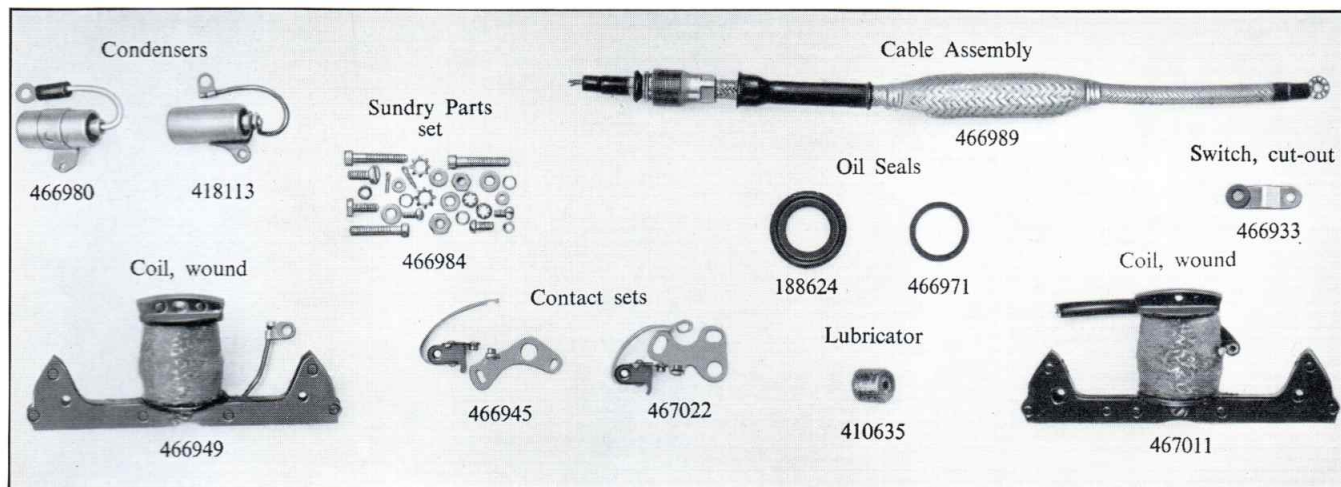


DESCRIPTION OF SPARE PARTS	MAGNETO AND SPARE PART ORDERING NUMBERS					
	42123L	42157K	42179N	42190B	42229E	42231A
Cover, pick-up	457810	457810	457810	457810	458658	457810
Pick-up	456794	456794	456794	456794	458876	456794
Nut, moulded	455791	455791	455791	455791	410600	455791
Brush and spring	451260	451260	451260	451260	451260	451260
Cover, contact breaker	459199	459199	459199	459199	459205	459199
Contact breaker	470914	470914	470914	470914	470914	470914
Brush and spring	470537	470537	470537	470537	470537	470537
Control parts, set	457117	457117	457117	457117	457117	—
Cover, barrel	454475	454475	454475	454475	454475	454475
Nut, shaft	170104	170104	170104	170104	170104	170104
Brush, spring and holder	455191	455191	455191	455191	455191	455191
Brush and spring	455190	455190	455190	455190	455190	455190
Sundry parts, set	458869	458869	458869	458869	458869	458869

SPARE PARTS



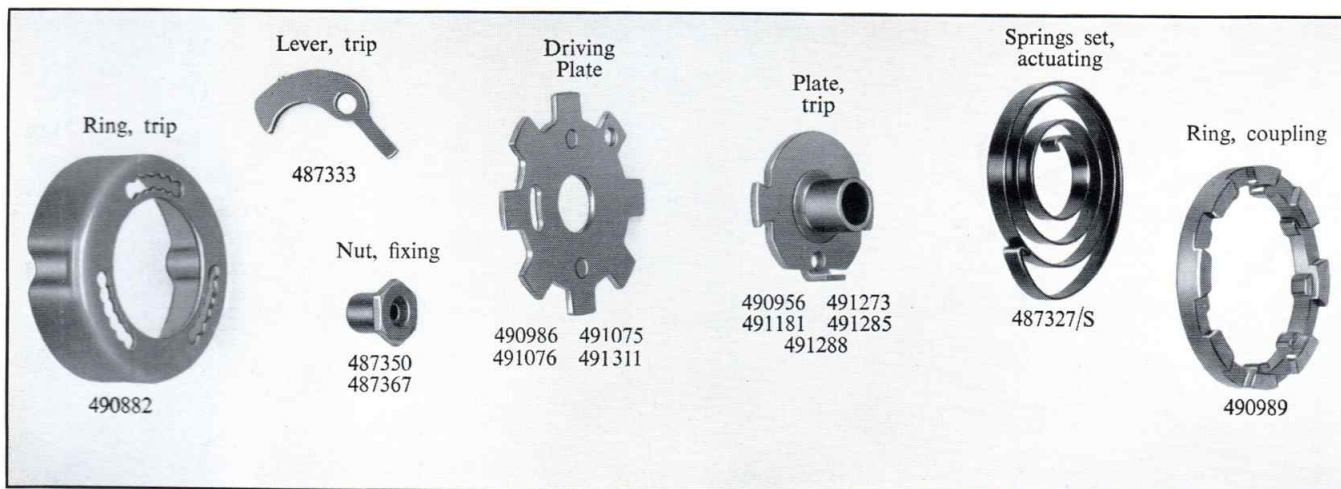
2F1 and FA1 FLYWHEEL MAGNETOS



Ordering Number	Model	Coil, Wound	Contact Set	Felt, Lubricator	Condenser	Switch, Cutout	Oil Seal	Cable Assembly	Sundry Parts, set
42273D 42292A	FA1 2F1	466949 467011	466945 467022	410635 410635	466980 418113	466933 466933	466971 188624	466989 —	466984 466984

IMPULSE STARTERS AND SPARE PARTS

Suitable for SR Type Magnetos



DESCRIPTION OF SPARE PARTS	IMPULSE STARTERS AND SPARE PARTS ORDERING NUMBERS									
	47526	47527	*47530	*47531	47533	*47535	*47536	47537	47538	47539
Spring set, actuating ..	487327/S	487327/S	487327/S	487327/S	487327/S	487327/S	487327/S	487327/S	487327/S	487327/S
Trip plate, with pins ..	490956	490956	491181	491181	491285	491273	491288	491288	491285	491288
Lever, trip	487333	487333	487333	487333	487333	487333	487333	487333	487333	487333
Ring, trip	490882	490882	490882	490882	490882	490882	490882	490882	490882	490882
Ring, coupling	—	—	490989	490989	—	490989	490989	—	—	—
Nut, fixing	487350	487350	487350	487350	487367	487350	487350	487367	487367	487367

* Adjustable type unit for which a driving plate is required. See page F2

Section M

LUCAS

**SERVICING "OLD TYPE"
MAGNETOS**

SERVICING "OLDER PATTERN"

LUCAS MAGNETOS

The magnetos listed in this Catalogue are those in current production. Older type machines are referred to in the list of "Older Pattern" magnetos given below and overleaf.

In most cases, these older type machines are shown as having been replaced by newer models, *but where no replacement is listed the Original Part No. should be ordered.*

This has been done to enable the customer to take full advantage of the various improvements in design and performance which are constantly being achieved.

Spare Parts

In the majority of cases spare parts are available for "Older Pattern" magnetos, full details being given in the current edition of the 'Ignition Spare Parts Catalogue'.

In the case of certain pre-war and special magnetos, the necessary spare parts may not be listed, in which case we would be grateful if you would contact the Spares Division, Great Hampton Street, Birmingham 18.

Factory Exchange Service

For full details of this scheme, see the current edition of the 'Factory Exchange Service (B.90) Price List'.

Original Part No.	Model	Replaced by	Model	Original Part No.	Model	Replaced by	Model
42013	N1-4	42037	N1-4	42132	RS1-5	42125	RS1-5
42014	N1-3	*42296	SR1	42134	KVF	—	—
42015	N1-4	*42295	SR1	42139	N1	42020	N1
42019	N1-4	42020	N1-4	42144	RS1	—	—
42024	N1-4	*42296	SR1	42158	SR4F	†42290	SR4
42025	N1	*42295	SR1	42161	N1F	42121	N1F-3
42027	N1-4	42009	N1-4	42165	RS1-4	—	—
42031	N1-4	42037	N1-4	42174	K2F	†42248	K2F
42033	N1-3	42288	SR1	42180	K2F	42230	K2F
42034	N1	42288	SR1	42188	RS1	42283	SR1
42049	KN1	42040	KN1-3	42199	N1-4	42020	N1-4
42050	KN2LF-3	*42116	KN2LF-3	42207	SR1	42283	SR1
42057	KN1L	42118	KN1L-3	42211	SR1F	§42287	SR1
42060	KN1LF	42061	KN1LF-3	*42260	RS1	*42295	SR1
42070	N1L	42288	SR1	*42261	SR1	*42295	SR1
42072	KN1L-0	42040	KN1-3	*42262	SR1	*42296	SR1
42074	KN2L-3	42065	KN2L-3	42264	K2F	42263	K2F
42078	N2-3	42095	N2-3	44002	GJ4-5	44110	RF4
42079	N1L	42009	N1-4	44003	4VRA	—	—
42080	N1L-3	42009	N1-4	44006	GJ4	44110	RF4
42088	N1L-0	42020	N1-4	44011	4VRS	44035	4VRS
42101	N2-3	*42062	N2-3	44019	4VRA	44107	4VRA
42102	N2-3	*42063	N2	44022	GJ4	44110	RF4
42111	K2F	42248	K2F	44025	GJ4	*44080	RF4
42114	K2F	†42248	K2F	44026	4VRA	—	—
42121	N1F-3	—	—	44029	4VRS	¶44037	4VRS
42124	RS1-5	—	—	44030	4VRA	44107	4VRA
42125	RS1-5	—	—	44038	8WRSF	§44046	8WRSF
42126	RS1	42283	SR1	44042	GJ4	44020	RF4
42127	N1-4	*42296	SR1	44050	GJ2F	*44106	RF2F
42129	KN1L	42040	KN1-3	44053	GJ4F-5	*44087	RF4F
42130	RS1-4	42144	RS1	44056	8WRSF	**44046	8WRSF
42131	RS1	42124	RS1-5	44059	4VR	††44058	4VR

* Marine finish.

† and 76204 Switch.

‡ and 490731 Flange, 47531 Impulse, 490986 Coupling.

§ and 490731 Flange.

|| and 410284 Speed Limiter.

¶ and 410297 Speed Limiter.

§ and 410296 Speed Limiter.

** and 410294 Speed Limiter.

†† and 410282 Speed Limiter.

SERVICING "OLDER PATTERN"

LUCAS MAGNETOS—continued

Original Part No.	Model	Replaced by	Model	Original Part No.	Model	Replaced by	Model
44065	4VRS	—	—	456117	N2	42095	N2-3
44071	GJ4	44020	RF4	456211	N2	*42062	N2-3
44072	ERA6	*44144	RF6	456212	N2-1	*42062	N2-3
44077	GJ4	*44080	RF4	456213	N2	*42062	N2-3
*44078	GJ4	†	†	456214	N2	*42062	N2-3
44081	GJ4F-5	*44090	RF4F	456216	N2	*42063	N2-3
44082	4VRA	44088	4VRA	456237	N2-2	*42062	N2-3
*44103	RF4F	*44090	RF4F	456238	N2-2	*42062	N2-3
*44104	RF4F	*44090	RF4F	456239	N2	*42062	N2-3
*44105	RF2F	*44106	RF2F	456241	N2	42095	N2-3
44121	4VRA	44131	4VRA	456259	N1F-2	42121	N1F-3
045213	SR4F	045316	SR4F	456262	N1F	42121	N1F-3
045234	SR4F	045316	SR4F	456305	KN1LF	42061	KN1LF-3
452008	KL V	42056	KNV-4	456306	KN1LF-3	*42120	KN1LF-3
452025	KL V	42096	KNV-4	456359	KN1LF-3	*42120	KN1LF-3
452431	MAK1-2	*42296	SR1	456502	N1L	42005	N1-4
452432	MAK1-2	42018	N1-4	456512	N1L	42009	N1-4
452507	KL2	42065	KN2L-3	456520	N1L	42288	SR1
452914	MK1-3	42118	KN1L-3	456612	N1L	42009	N1-4
452915	MK1-3-4	42044	KN1-3	456630	N1L	42037	N1-4
452952	MK1	42044	KN1-3	456646	N1L	42009	N1-4
454102	N1	42005	N1-4	457002	ADN1	42118	KN1L-3
454109	N1	42036	N1	457005	ADN1	42044	KN1-3
454112	N1	42288	SR1	457307	RS1	42124	RS1-5
454116	N1-0	42020	N1-4	457308	RS1-1	42125	RS1-5
454118	N1-0	42018	N1-4	457314	RS1-4	42165	RS1-4
454127	N1-4	*42296	SR1	457423	RS1	42283	SR1
454128	N1	42288	SR1	457504	RS1-2	42126	RS1
454130	N1	42009	N1-4	457505	RS1-2	42124	RS1-5
454132	N1	42288	SR1	457506	RS1	42125	RS1-5
454229	N1-0	42020	N1-4	457507	RS1	42144	RS1
454235	N1-1	42037	N1-4	457508	RS1-2	42165	RS1-4
454248	N1	42037	N1-4	457510	RS1	42144	RS1
454249	N1	42036	N1	457559	RS1	42124	RS1-5
454281	N1	42018	N1-4	457560	RS1-3	42125	RS1-5
454282	N1	42005	N1-4	457562	RS1-3	42165	RS1-4
454305	N1	42288	SR1	457563	RS1-3	42144	RS1
454306	N1	42009	N1-4	485753	RGJ4F-3	*44090	RF4F
454311	N1	42288	SR1	485781	RGJ4F-3	*44090	RF4F
454312	N1	42288	SR1	486009	GE4	†	†
454316	N1-0	42036	N1	486073	ERA4-4	*44080	RF4
454506	KN1-0	42040	KN1-3	486081	ERA4	44020	RF4
454515	KN1-0	42051	KN1-3	486976	GJ4F	*44090	RF4F
454518	KN1-0	42051	KN1-3	486977	GJ4	†	†
454592	KN1-1	42051	KN1-3	487031	GJ4-4	*44080	RF4
454711	KN2L	42065	KN2L-3	487059	GJ4F-5	*44090	RF4F
454715	KN2L	42065	KN2L-3	487060	GE4-5	†	†
454731	KN2L-0	42065	KN2L-3	487061	GJ4-5	†	†
454921	KNV	42055	KNV-4	487062	GJ4-5	†	†
454931	KNV	42056	KNV-4	487063	GJ4F	*44090	RF4F
454933	KNV-L	42052	KNV-4	487074	GJ4	44020	RF4
455090	KNV-1	42052	KNV-4	487543	GJ4	*44080	RF4
455094	KNV-1	42056	KNV-4	488377	6URA	44109	6VRA-1
455106	KN1L	42118	KN1L-3	488562	6VRA	44109	6VRA-1
455113	KN1L	42041	KN1-3	488655	4VRA	44088	4VRA
455122	KN1L-0	42040	KN1-3	488656	4URA	44088	4VRA
455318	KP2-2	42065	KN2L-3	488731	6VRA-1	44109	6VRA-1
455319	KP2-2	42066	KN2L-3	488862	4VRA	44066	4VRA
456112	N2	42095	N2-3	488972	4VRA	†	†
456114	N2	*42062	N2-3	489067	8WRSF	§44046	8WRSF
456115	N2	*42062	N2-3	489151	8WRSF	44046	8WRSF

* Marine finish.

† Refer to Agricultural and Marine Division,
Great Hampton Street, Birmingham 18.

‡ New five figure number 44058.

§ and 410294 Speed Limiter.

|| and 488548 Speed Limiter.