LUCAS

SR MAGNETOS

APPLICATION GUIDE
TO
AGRICULTURAL & MARINE ENGINES

FOREWORD

This booklet has been issued as a ready reference in order that you may have before you at all times a guide to the use and adaptability of the range of Lucas S. R. Magnetos.

These magnetos have been especially designed for universal application on Agricultural, Industrial and Marine engines.

Separate base plates, flanges and the new, fully adjustable Impulse Starter with a large selection of driving plates enable this magneto to be fitted to almost any type of mounting.

The application lists have been arranged to enable the details of the required magneto to be seen at a glance. This has been done in the following manner :—

Columns 1 and 2	Show the make and model of vehicle or engine for which an S. R. Magneto is available.
Columns 3 and 4	Type and complete assembly ordering number of Lucas Magneto.
Columns 5, 6, 7 and 8	The ordering number of the component parts making up the complete magneto, i.e., Magneto, Flange, Base and Impulse.
Columns 9 and 10	The alternative adjustable impulse starter and drive plate for the fixed impulse shown in the previous column.
Column 11	Special features and details of extra parts required to complete the replacement.
Columns 12, 13, 14 and 15	Position of Flange, Rotation, Angle of Lag and Normal Running Position of the Impulse Dogs
Columns 16 and 17	Make and Model of original Magneto.

GENERAL FITTING INSTRUCTIONS

The impulse starters of all Lucas S. R. Magnetos are adjustable for lag angle and a proportion have provision for altering the Normal Running Position of the Impulse Dogs.

Instructions for fitting both these types of impulse starters are given in the following pages.

JOSEPH LUCAS (SALES & SERVICE) LTD., BIRMINGHAM, 18

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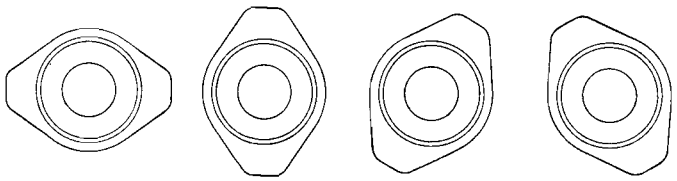
INSTRUCTIONS FOR FITTING FLANGES AND BASE PLATES

FLANGES

When fitted these are attached to the Magneto body by three countersunk screws which should be wrung in as tightly as possible and the metal of the screw head caulked into the slots provided.

Every flange can be fitted in any one of three positions which vary with the engine application. To determine the correct position for a particular assembly refer to the symbol (H, U, R or L) in column 12 of the application list and fit the flange in the position which conforms approximately with the appropriate diagram as shown below.



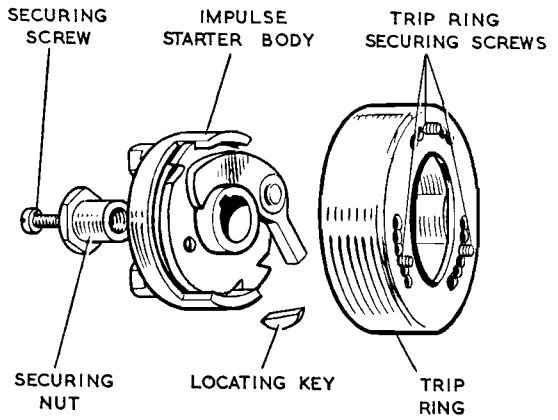
H—Horizontal **U**—Upright **R**—Canted to Right **L**—Canted to Left

BASE PLATES

When fitted these are attached to the magneto body by four countersunk screws. These screws must be tightly wrung into place and the metal of the screw head caulked into the slots provided in the base plate. For ease of fitting the majority of base plates are marked DE, indicating Drive End, and with this end flush with the end of the magneto body the correct fitting position is ensured. Where the marking is not apparent, however, the end of the plate which is smoothly radiused should coincide with the position of the H.T. cover.

INSTRUCTIONS FOR FITTING FIXED IMPULSE STARTERS

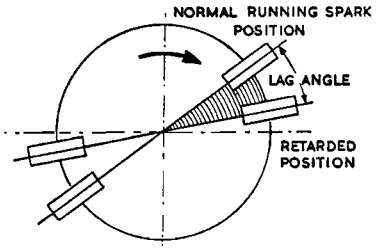
An impulse starter facilitates manual starting by increasing the intensity and delaying the time of sparking at low engine speeds.



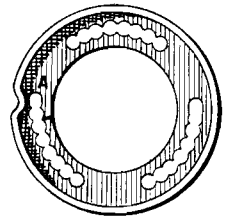
THE LAG ANGLE

Due to the winding up of the impulse spring, the position of the driving dogs when a retarded spark is produced is different from their position when a normal running spark is produced.

The angular distance between these positions is called the lag angle and is determined by the engine manufacturer.



Lag Angle



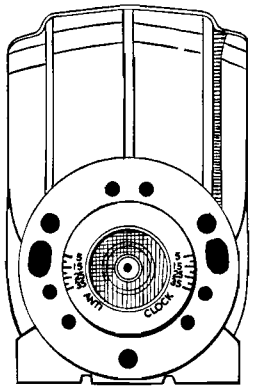
Trip Ring for Anti-Clockwise Rotation

This impulse starter is so designed that the lag angle can be set to suit the requirements of a particular engine.

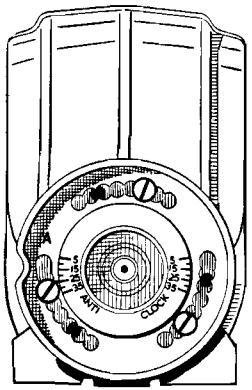
SETTING THE LAG ANGLE

Angles from 0° to 35° in 5° steps can be obtained as follows :
The letters " C " or "A" on the trip ring refer to clockwise or anti-clockwise rotation magnetos respectively.

(i) Refer to the engine manufacturer's instructions and obtain the relevant lag angle.
(ii) Fit the trip ring to the magneto so that the marker line adjacent to " C " or "A" on the trip ring coincides with the relevant lag angle on the calibrated portion of the magneto drive end face.
(iii) Insert the three trip ring securing screws and tighten firmly.



Drive End Face Calibrations



Trip Ring Fitted to Magneto

As an example, to obtain a 25° angle of lag on a magneto having anti-clockwise rotation :
Place the line adjacent to "A" against 25° on the anti-clockwise portion of the calibration, as illustrated.

FITTING THE IMPULSE STARTER TO THE MAGNETO

(i) Fit the trip ring to the magneto to obtain the relevant lag angle.
(ii) Place the locating key in the keyway in the magneto shaft.
(iii) Press the impulse starter body on the magneto shaft and engage the locating key.
(iv) Fit the securing nut.
(v) Fit the left-hand threaded securing screw.

INSTRUCTIONS FOR FITTING ADJUSTABLE DOG IMPULSE STARTERS

An impulse starter facilitates manual starting by increasing the intensity and delaying the time of sparking at low engine speeds.

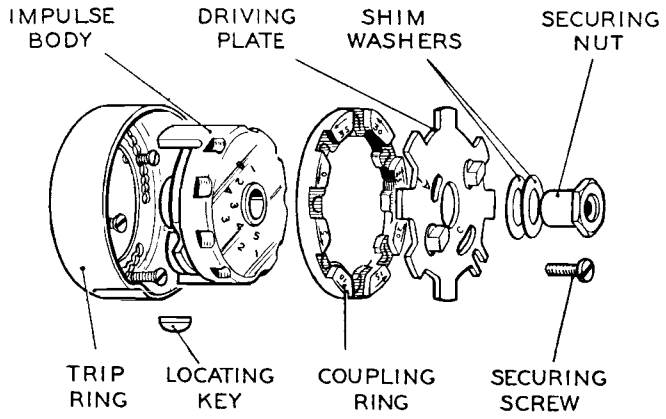


Fig. 1

This impulse starter is so designed that the dog angle and the lag angle can be set to suit the requirements of a particular engine.

THE LAG ANGLE

Instructions for setting the dog angle of adjustable impulse starters are identical to those for the fixed type given on page two.

THE DOG ANGLE

The dog angle is the angular distance between the horizontal axis of the magneto and the position of the dogs when a normal running spark is produced. The dog angle is measured in the direction of magneto rotation. The value of the dog angle is determined by the engine manufacturer.

SETTING THE DOG ANGLE

Dog Angle Setting Table

Dog Angle					Coupling Ring Setting
0	40	80	120	160	0
5	45	85	125	165	5
10	50	90	130	170	10
15	55	95	135	175	15
20	60	100	140	180	20
25	65	105	145	—	25
30	70	110	150	—	30
35	75	115	155	—	35
Driving Plate Window Setting					
1	2	3	4	5	

This table provides for setting dog angles from 0° to 180° in 5° steps.

(i) Refer to the engine manufacturer's instructions and obtain the relevant dog angle.

(ii) Obtain the coupling ring setting number from the table. This number appears under " Coupling Ring Setting " and is in line with the relevant dog angle.

(iii) Fit the driving plate to the coupling ring, so that the setting number on the coupling ring is adjacent to 'C' or 'A' on the driving plate.

(iv) Obtain the driving plate window setting number from the table. This number appears at the foot of the column in which the relevant dog angle appears.

(v) Fit the driving plate and coupling ring assembly to the impulse body so that the required setting number on the impulse body appears in the 'C' or 'A' driving plate window.

As an example, to obtain a 175° dog angle on a magneto having anti-clockwise rotation :

Fit the driving plate to the coupling ring so that number 15 on the coupling ring is adjacent to 'A' on the driving plate.

Fit the driving plate and coupling ring assembly to the impulse body so that number 5 on the impulse body appears in the 'A' driving plate window.

This dog angle is illustrated in Fig. 3.

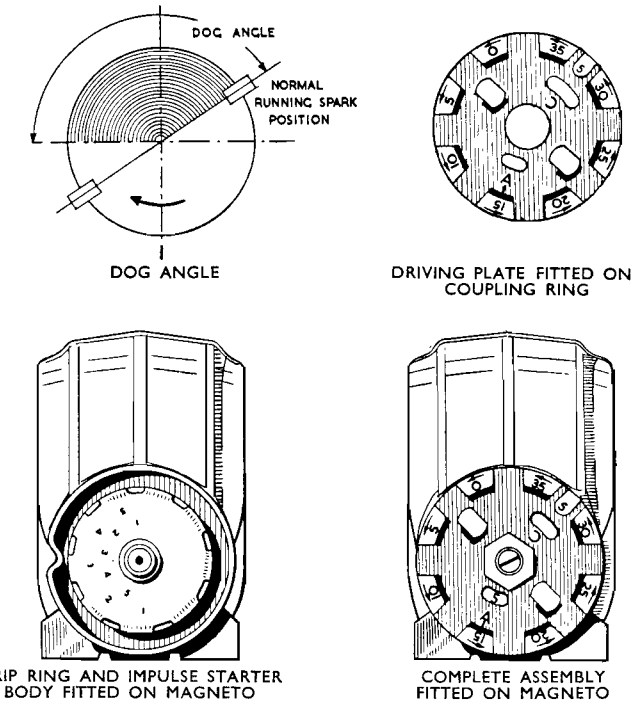


Fig. 3

FITTING THE IMPULSE STARTER TO THE MAGNETO

(i) Ensure that the trip ring is firmly secured to the magneto body.

(ii) Place the locating key in the keyway in the magneto shaft.

(iii) Press the impulse starter body, complete with coupling ring and driving plate, on the magneto shaft and engage the locating key.

(iv) Fit the securing nut. Most adjustable dog impulse starters incorporate shim washers. Fit these under the securing nut to allow 0·001″ — 0·006″ end float.

(v) Fit the left-hand threaded securing screw.

INSTRUCTIONS FOR RE-POSITIONING THE CUT-OUT BUTTON

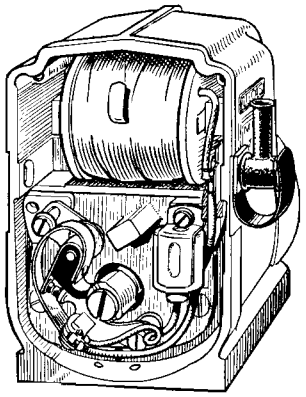


Illustration showing S.R. Magneto with cover removed, Cut-out Button on left-hand side.

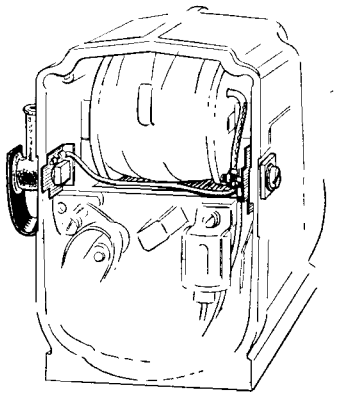


Illustration showing S.R. Magneto with Cut-out Button re-positioned.

To change the position of the Cut-out Button, proceed as follows :—

Remove the front cover of the magneto.

Remove the two securing nuts on the Cut-out Button Terminal and withdraw the screw, insulating bush, etc.

Lay all these parts to one side — **they are required again.**

Now, using the parts supplied in kit 491264 :—

Fit the screw in the existing hole in the magneto body, ensuring that the insulating bush and pad are a good fit, as these prevent water, dust, etc., entering the magneto.

Fit one end of the Terminal Connector on to the screw, together with the two existing terminal leads.

Fit the washers supplied and tighten the fixing nut.

Using a hammer and punch, lightly tap out the indentation in the side of the magneto body, opposite the original cut-out hole.

Great care must be taken that no swarf or other dirt is allowed to enter the magneto.

Fit the original cut-out screw, insulating bush, spring arm, etc. ensuring that the bush is a good fit.

Pass the terminal lead straight across the magneto (see right-hand sketch overleaf), secure the loose end to the screw and tighten the securing nuts.

Replace the magneto cover.

ADJUSTABLE IMPULSE STARTERS

Most impulses quoted in the following application charts are of the fixed type. Where an equivalent of the adjustable type is preferred, refer to the lists below.

For Lag Angles see Application Chart.

FIXED IMPULSE STARTER			EQUIVALENT ADJUSTABLE IMPULSE STARTER		
Impulse	Rotation	DogAngle	Impulse	Drive Plate	Remarks
47526	A/C.	125°	47535	491075	
47527	A/C.	125°	47536	491075	
47528	C.	150°	47531	490986	
47534	C.	125°	47530	491075	
47540	C.	125°	47531	491075	
47542	C.	108°	47530	491075	
47543	A/C.	108°	47535	491075	
47547	C.	0°	47531	490986	
47555	A/C.	145°	47536	490986	
47560	C.	60°	47531	490986	
47561	A/C.	25°	47536	490986	
47567	C.	150°	47530	490986	Special nut 492991 will also be required. Also it will be necessary to chamfer driving dogs to suit slot in gear.
47569	A/C.	125°	47535	491075	Special nut 492991 will also be required.

FIXED IMPULSE STARTERS WITH NO ADJUSTABLE EQUIVALENT	
Impulse	Description
47533	¼" Threaded Studs.
47537	¼" Threaded Studs.
47538	¼" Threaded Studs.
47539	¼" Threaded Studs.
47550	Special different sized dogs for Brit. Engines.
47558	Simms Vernier Coupling.
47570	Simms Vernier Coupling.

HIGH TENSION CABLES

We recommend that the only H.T. cables used with Lucas magnetos should be our PVC covered cables to Specification UM917. These cables are impervious to oil, petrol and water.

SUPPRESSORS

Normal car type suppressors should not be used with Lucas magnetos. A special suppressor with a resistance of 5,000 ohms is available under Part Number 78119.

PRICES

Lucas magnetos are offered in exchange for any make of magneto at the following retail prices :

SR1 or SR1F without Impulse	87/-
SR1 or SR1F with Impulse	91/6
SR2 and SR4 or SR2F and SR4F (except for 045554 and 045665)	121/-
SR4 045554 (Fordson)	107/-
SR4F 045665 (Caterpillar)	156/-
4VRF 046001 (Wisconsin)	280/-

USEFUL SPARES ITEMS

Part No.		Description
458053	..	Contact Set
491329	..	Condenser
487327	..	Impulse Spring
490646	..	1 Cyl H.T. Cover
490860	..	1 Cyl. H.T. Cover (Shallow)
491483	..	2 Cyl. H.T. Cover (Camshaft speed)
490138	..	4 Cyl. H.T. Cover (Camshaft speed)
491937	..	Rotor Arm and Gear
492979	..	Rotor Arm only
458194	..	H.T. Cover gasket
491264	..	Cut-out Button Conversion kit

The above items are obtainable, upon request, from any Lucas Agent or Stockist.

MAGNETO APPLICATION GUIDE

Column (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
APPLICATION		LUCAS MAGNETO		CONSISTS OF				ALTERNATIVE TO FIXED IMPULSE		EXTRA ITEMS REQUIRED AND SPECIAL FEATURES	TECHNICAL DATA				REPLACES	
Make	Model	Type	Ordering No.	Magneto	Flange	Base	Impulse (Fixed)	Impulse (Variable)	Drive Plate		Flange Position	Rot.	Lag	Dog Position	Make	Model
Allis Chalmers ...	B, WC, W and M, etc., over serial No. 1785 ...	SR4F	045316	42290	490731	—	47528	47531	490986		U	C	30°	150°	Wico	A883CZ & A1228HZ
	K	SR4	045677	42291	—	491513	—	47536	490986		—	A/C	30°	35°	F/Morse Scintilla	FM/K4/B3 C4
Atco Mowers ...	JAP 350 c.c. Pre. '41 ...	SR1	42287	42287	—	—	—	—	—		—	C	—	—	Wico	A578BZ
	JAP 500 c.c. Pre. '41 ... (De Luxe 30")	SR1	045416	42287	—	—	47537	—	—	Dust Seal 492050 if required.	—	C	10°	Studs	Wico	A811BZ & A536BZ
Austin	Thetus															
	8 h.p. (Lifeboat)	SR4	045596	A42290	—	491513	47558	—	—		—	C	30°	Vernier	Lucas	GJ4 & RF4
	7 h.p.	SR4	045700	A42290	—	491513	—	—	—	Taper Sleeve 493254	—	C	—	—	Lucas	GJ4
Aveling Barford ...	Dorman 1 AB	SR1	045678	42287	—	—	47534	47530	491075	Dust Seal 492050 if required.	—	C	15°	125°	Wico	A908BZ
	Dorman 2 AB	SR2	045322	42306	—	—	47540	47531	491075	Dust Seal 492050 if required.	—	C	20°	125°	Wico	A978BZ & A1319HZ
Bamford	EG1, EG1M, EG2—Spec. A and C	SR1	42283	42283	—	—	—	—	—		—	A/C	—	—	Lucas	42207
	EG3, EG4, EG5—Spec. A, B and C	SR1	045679	42281	—	—	47533	—	—	Dust Seal 492050 if required.	—	A/C	25°	Studs	Wico	A812BZ
	EG1, EG1M, EG2—Spec. B and D and EG3 and EG4—Spec. D	SR1	045708	42281	—	—	47538	—	—	Mag. inclinded. *Lag set at minus 5° on clockwise scale.	—	A/C	25°*	Studs	Wico	A946BZ
Bergius	A2, B2, C2	SR2F	045701	A42343	492906	—	—	—	—	Taper Sleeve 493254	U	A/C	—	—	—	—
(Kelvin)	A4, B4, C4	SR4F	045702	A42291	492906	—	—	—	—	Taper Sleeve 493254	U	A/C	—	—	—	—
	E2, F2, G2, J2, K2 ...	SR2F	045664	42316	492906	—	—	—	—	Taper Sleeve 493254	U	C	—	—	Lucas	RF2F
	E4, F4, G4, J4, K4 ...	SR4F	045676	A42290	492906	—	—	—	—	Taper Sleeve 493254 See Note 8 on Page 20.	U	C	—	—	Lucas	RF4F
Brit. Marine ...	Minor (1954)	SR1F	045327	42295	491054	—	47534	47530	491075	Also available in opposite rotation. If replacing old Lucas Mag. it may be necessary to re-time engine side coupling to suit new mag., and also move the fixing studs into the alternative holes provided on "block."	U	C	5°	125°	Orig. Equip.	
	A, D, J	SR1F	045660	42295	491373	—	47550	—	—		U	C	10°	Special	Lucas	KN1LF
															Wico	A1038BZ
	L, E10	SR2F	045587	42302	491373	—	47550	—	—		U	C	10°	Special	Lucas	KN2LF
															Wico	A1008BZ
	M, F20	SR4F	045589	A42290	491373	—	47550	—	—		U	C	10°	Special	Lucas	RF4F
															Wico	A1032BZ
B.S.A.	Industrial A	SR1	045580	42281	—	—	47526	47535	491075	Dust Seal 492050 if required.	—	A/C	15°	125°	Wico	A1001BZ
Brooke	Empire Marine	SR4	045554	A42290	—	492513	47528	47531	490986	Open out one slot in coupling to $\frac{5}{16}$".	—	C	30°	150°	—	—
	Dominion Marine ...	SR2	045704	42316	—	491513	47540	47531	491075	Retime engine side coupling.	—	C	30°	125°	—	—
Boydell Dumper ...	Fordson	SR4	045554	42290	—	491513	47528	47531	490986	Includes Dust Excluder 491515.	—	C	30°	150°	Lucas & Wico	GJ4 & RF4 A914BZ
Case	D (Early Models), C & L	SR4	045680	42290	—	491513	—	47531	491075	Dust Seal 492050, if required.	—	C	30°	150°	Wico	A920BZ & A1232HZ
															Case	4CMA-30
	D & DEX (Later Models) SC, SE, DE and VAE ...	SR4F	045551	42290	490731	—	47547	47531	490986		U	C	30°	0°	Wico	A919BZ & A1231HZ
															Case	41JMA-25

For Flange position details see page 2.

MAGNETO APPLICATION GUIDE

Column (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
APPLICATION		LUCAS MAGNETO		CONSISTS OF			
Make	Model	Type	Ordering No.	Magneto	Flange	Base	Impulse (Fixed)
Caterpillar	D2 and D4—Starting Eng.	SR2F	045665	42282	493269	—	47569
	D7 and D35—Starting Eng.	SR2F	—	42343	490731	—	—
	D8—Starting Eng. ...	SR2F	045709	42282	490731	—	—
	RD6—Starting Eng. ... (Mag. mounted upside down).	SR2F	045710	42343	—	490953	—
	22	SR4	045554	42290	—	491513	47528
	R2	SR4	045681	42290	—	491513	47560
Coborn	C2 and C6	SR1	045576	42281	—	—	47526
	B23	SR1F	045682	42281	492635	—	47526
	C1 and C3	SR1	045683	42287	—	—	47534
Coleby "Shire" "Jersey Senior"	B.S.A. Ind.	SR1	045580	42281	—	—	47526
Coventry Victor ...	Neptune	SR4	045560	42320	—	491514	47540
	"N" type	SR2	045561	42328	—	491514	47540
Deere, John ...	A, B & H (Later Models)	SR2F	045592	42343	490731	—	47555
	A, B & H (Early Models)	SR2F	045684	42343	490731	—	—
	Baler	SR2F	045685	42302	491054	—	47540
Dennis	Fire Pump	SR4	045672	42291	—	491513	47570
Douglas	Industrial Engs.	SR1F	045686	42287	492635	—	47534
Fordson	Standard and Major ...	SR4	045554	42290	—	491513	47528
George Fowell ...	GF Light Dumper, Type A	SR1	045577	42281	—	—	47526
Fowler	2PB and 2PC	SR2	045687	42303	—	—	47538
Gain Marine ...	C3	SR4	045703	A42291	—	491513	—
Greens Mower ...	JAP 550 c.c.	SR1	045682	42279	—	—	47533
Howard Rotary Hoe	JAP 600 s.v. MKIII, type 5	SR1	—	42281	—	490943	—
	GEM—Series II	SR1	045580	42281	—	—	47526

(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
ALTERNATIVE TO FIXED IMPULSE		EXTRA ITEMS REQUIRED AND SPECIAL FEATURES	TECHNICAL DATA				REPLACES	
Impulse (Variable)	Drive Plate		Flange Position	Rot.	Lag	Dog Position	Make	Model
47535	491075	Complete with Gear 492984, Nut 492991 and L.H. Screw 492061. Control Rods 4F8016 and 4F7997 obtainable, if required, from Caterpillar Agent.	H	A/C	30°	125°	Eisemann Wico	T39952 A942BZ
47535	490986		U	A/C	30°	25°	Bosch	MJK4-1208
47535	490986		U	A/C	30°	10°	Eisemann	RT-2Q
47536	490986	*Trip Ring turned 180° and set at approx. minus 5° on clockwise side of scale. Change cutout to R.H.S. Kit 491264.	—	A/C	25°*	60°	Wico	A910BZ
47531	490986	Alter engine vernier to re-time.	—	C	30°	150°	Eisemann	CM4
47531	490986	Dust Seal 492050.	—	C	35°	60°	Eisemann	CT-4
47535	491075	Dust Seal 492050 if required.	—	A/C	10°	125°	Wico	A600BZ
47535	491075		U	A/C	10°	125°	Wico	A1003BZ
47530	491075	Dust Seal 492050 if required.	—	C	10°	125°	Wico	A624BZ
47535	491075	Dust Seal 492050 if required.	—	A/C	15°	125°	Wico	A1001BZ
47531	491075	Special Base Plate and Magneto Body cut away.	—	C	15°	125°	Wico	A971BZ }
47531	491075		—	C	15°	125°	Wico	A1028BZ }
47536	490986	Later Models with Standard Dogs.	U	A/C	30°	145°	Wico	A876BZ & A1240HZ
47536	491311	Early Models with Extended Dogs.	U	A/C	30°	145°	Wico	A909BZ, A961BZ & A1239HZ
47531	491075	Slots on flange opened outwards by $\frac{1}{16}$" each. Nut 492991 and L.H. screw 492061. Remove cut-out spring and cut down screw length.	U	C	30°	125°	Am. Wico	XH909
—	—	Vernier type Impulse.	—	A/C	30°	Vernier	Lucas	RF4
47530	491075		U	C	25°	125°	Wico	A950BZ
47531	490986	Includes Dust Excluder 491515.	—	C	30°	150°	Wico Lucas Bosche	A914CZ GJ4 & RF4 FU4B
47535	491075	Dust Seal 492050 if required.	—	A/C	5°	125°	Wico	A1114BZ
—	—	Dust Seal 492050 if required.	—	A/C	30°	Studs	Wico	A821BZ
—	—	Taper Sleeve 493254.	—	A/C	—	—	—	—
—	—	Dust Seal 492050 if required.	—	A/C	25°	Studs	Wico	A580BZ
—	—	Fit base plate in rear set of holes and use Dust Seal 492839.	—	A/C	—	—	Wico	A1041BZ
47535	491075	Dust Seal 492050 if required.	—	A/C	15°	125°	Wico	A955BZ

For Flange position details see page 2.

MAGNETO APPLICATION GUIDE

Column (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
APPLICATION		LUCAS MAGNETO		CONSISTS OF			
Make	Model	Type	Ordering No.	Magneto	Flange	Base	Impulse (Fixed)
International Harvester ...	Farmall "M & H," etc. ...	SR4F	045551	42290	490731	—	47547
	Farmall "TD6 and TD9," etc.	SR4F	045599	42291	490731	—	47561
	Farmall W9, W14 & T9 etc.	SR4F	—	42291	490731	—	—
	Cub Eng.	SR4F	045598	42290	492437	—	47560
	Continental Eng. ...	SR4F	045597	42290	493489	—	—
Landmaster ...	JAP 600 s.v. MKIII ...	SR1F	045266	42358	490884	—	47526
Lister		SR1	045282	42287	—	490943	—
		SR1	045271	42281	—	490943	—
Mineapolis	GT	SR4	045554	42290	—	491513	47528
Moline	GPA (ME.ENG.)	SR4F	045316	42290	490731	—	47528
	GPA (RE.ENG.) Vertical Mounted Mag. ...	SR4F	045316	42290	490731	—	47528
Massey Harris ...	722 Combine—Continental Eng. ...	SR4F	045690	42290	492383	—	47547
	Baler (Wisconsin VE4, VF4, VP4D or Petter PAV4)	4VRF	046001	—	—	—	—
Meadows	Kittywake	SR4	045672	A42291	—	491513	47570
Morris	Vedette MKII	SR4F	045676	A42290	492906	—	—
	Vedette MKIII	SR4	045596	A42290	—	491513	47558
	Navigator MKI	SR4	045596	A42290	—	491513	47558
Oliver	80	SR4F	045551	42290	490731	—	47547
Petter	2LTA (Prior 407959) ...	SR2	045691	42303	490884	—	47538
	2LTA (Prior 407959) ...	SR2	045692	42302	490884	—	47539
	2LTA (After 407959) ...	SR2	045693	42303	490884	—	47527
	2LTA (After 407959) ...	SR2	045694	42302	490884	—	47540
	PA1	SR1	045577	42281	—	—	47526
	PA1	SR1	045678	42287	—	—	47534
	A Series II and AH ...	SR1F	045275	42281	490884	—	47533
	A Series II and AP ...	SR1F	045578	42281	490884	—	47526
	A Series II	SR1F	045286	42287	490884	—	47537
	A Series II	SR1F	045601	42287	490884	—	47534
	A	SR1F	045695	42287	490885	—	47534
	PA2	SR2	045581	42282	—	—	47526
	PA2	SR2	045559	42318	—	—	47534
	PAV4—See Massey Harris	Baler					

CATION GUIDE

(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
ALTERNATIVE TO FIXED IMPULSE		EXTRA ITEMS REQUIRED AND SPECIAL FEATURES	TECHNICAL DATA				REPLACES	
Impulse (Variable)	Drive Plate		Flange Position	Rot.	Lag	Dog Position	Make	Model
47531	490986		U	C	30°	0°	International	H4-000,000
							Wico	A1082BZ & A1208HZ
47536	490986	On VO. Engs. Base must be cut away on RHS to cover profile.	U	A/C	15°	25°	Wico	A948BZ & A1212HZ
47536	490986		U	A/C	35°	0°	International	H4-000,000D
47531	490986		U	C	15°	60°	International	H4-000,000L
47531	490986		R	C	30°	170°	International	
47535	491075		R	A/C	25°	125°	Wico	CJ1385
—	—		—	C	—	—	Lucas	RS1
							Wico	A993BZ
—	—		—	A/C	—	—	Lucas	RS1
							Wico	A980BZ
47531	490986		—	C	30°	150°		
47531	490986		U	C	30°	150°		
47531	490986	Use original pawl springs and bend to suit SR. pawls.	U	C	30°	150°	F/Morse	FMK4B
47531	490986		R	C	15°	0°	Bosche	MJC4C-330
—	—		—	C	—	—	F/Morse	FMXV4B7
								FMXVE4B7G
							Wico	XH4-XH1343
								104-1390
—	—		—	A/C	30°	Vernier	Lucas	GJ4, RF4
—	—		U	C	—	—	Lucas	GJ4F4, RF4F
—	—		—	C	30°	Vernier	Lucas	GJ4 & RF4
—	—	For Fixing Details see Note 2 on Page 20.	—	C	30°	Vernier	Lucas	GJ4 & RF4
47531	490986		U	C	30°	0°	Bosch	MJB4A-310
—	—		R	A/C	5°	Studs	Wico	A941BZ & A1311HZ
—	—		R	C	5°	Studs	Wico	A968BZ & A1313HZ
47535	491075		R	A/C	5°	125°	Wico	A1058BZ & A1331HZ
47531	491075		R	C	5°	125°	Wico	A1060BZ & A1332HZ
47535	491075		—	A/C	5°	125°	Wico	A1114BZ
47530	491075		—	C	5°	125°	Wico	A1113BZ
—	—	Up to Eng. No. 546918.	R	A/C	5°	Studs	Wico	A940BZ
47535	491075	After Eng. No. 546918.	R	A/C	5°	125°	Wico	A1057BZ
—	—	Up to Eng. No. 546918.	R	C	5°	Studs	Wico	A967BZ
47530	491075	After Eng. No. 546918.	R	C	5°	125°	Wico	A1059BZ
47530	491075		L	C	5°	125°	Wico	A860BZ
47535	491075		—	A/C	5°	125°	Wico	A1116BZ & A1341HZ
47530	491075		—	C	5°	125°	Wico	A1115BZ & A1340HZ

For Flange position details see page 2.

MAGNETO APPLICATION GUIDE

Column (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
APPLICATION		LUCAS MAGNETO		CONSISTS OF			
Make	Model	Type	Ordering No.	Magneto	Flange	Base	Impulse (Fixed)
J. A. Prestwich ...	5 & 6 (Pre 1953) & 4/2 ...	SR1	045268	42358	—	—	47526
	5 & 6 (After 1953) & 4/3	SR1F	045266	42358	490884	—	47526
	55	SR2F	045582	42280	490885	—	47526
	600 s.v. MKIII type 5 ...	SR1	—	42281	—	490943	—
	600 s.v. MKIII type 8 ...	SR1F	045266	42358	490884	—	47526
	500 c.c. Pre 1941 ...	SR1	045416	42287	—	—	47537
	550 c.c.	SR1	045679	42281	—	—	47533
	350 c.c. Pre 1941 ...	SR1	42287	42287	—	—	—
Ransomes	MG5 and 6	SR1F	045698	42287	492636	—	47534
	MG2	SR1	—	42281	—	Use Orig.	—
Stuart Turner ...	R3M	SR1	42295	42295	—	—	—
	P5M	SR1	045324	42308	—	—	47534
	P5Y	SR1	42296	42296	—	—	—
	P55M	SR2	045322	42306	—	—	47540
	P55M	SR2	045323	42307	—	—	47527
	P55Y	SR2	42302	42302	—	—	—
	P55Y	SR2	42303	42303	—	—	—
If it is required to replace a magneto not fitted with Impulse Starter, with one that and Engine Side Driving Coupling							
Thornycroft ...	Handy Billy	SR2	045711	42307	—	490943	—
	RA4	SR4	045596	A42290	—	491513	47558
	RA4	SR4	045672	A42291	—	491513	47570
Trusty Tractor ...	Jap Engine	SR1F	045266	42279	490884	—	47526
Wisconsin ...	TFD and TE	SR2	045662	42351	490731	—	47567
	VE4, VF4 and VP4D— see Massey Harris Baler						
Wingate	Mechanical Moke ...	SR1	045268	42358	—	—	47526
Wolseley	WD and WLB	SR1F	045699	42317	492635	—	47542
	WD and WLB	SR1F	045320	42317	491054	—	47542
	WD and WLB	SR1F	045320	42317	491054	—	47542
	WD and WLB	SR1F	045550	42279	490884	—	47543

CATION GUIDE

(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
ALTERNATIVE TO FIXED IMPULSE		EXTRA ITEMS REQUIRED AND SPECIAL FEATURES	TECHNICAL DATA				REPLACES	
Impulse (Variable)	Drive Plate		Flange Position	Rot.	Lag	Dog Position	Make	Model
47535	491075	With Dust Seal 492050 and Shallow Cover 490860.	—	A/C	20°	125°	Wico	A576BZ
47535	491075	Shallow Cover 490860.	R	A/C	25°	125°	Wico	A936BZ & CJ936
47535	491075		R	A/C	10°	125°	Wico	A937BZ & A1309HZ
—	—	Fit base in rear set of holes and use Felt Seal 492839. Used in Rotary Hoe Cultivator.	—	A/C	—	—	Wico	A1041BZ
47535	491075	Used in Landmaster Cultivator.	R	A/C	25°	125°	Wico	CJ1385
—	—	Used in Atco Mowers. Dust Seal 492050 if required.	—	C	10°	Studs	Wico	A811BZ
—	—	Used in Greens Mower. Dust Seal 492050 if required.	—	A/C	25°	Studs	Wico	A941BZ
—	—	Used in Atco Mowers.	—	C	—	—	Wico	A578BZ
47530	491075	Two Felt Seals 491515 required.	U	C	20°	125°	Wico	A1009BZ
—	—	Special Drive Plate and Fixing Nut required. Contact AG and Marine Division. Use Original Base.	—	A/C	5°	30°	Wico	A689BZ
		On Twin Cylinder versions if H.T. cables are hard against gear box, Cover 492261 can be supplied to prevent tracking.						
—	—		—	C	—	—	Lucas	RS1
47530	491075		—	C	20°	125°	Wico	A972BZ
—	—		—	A/C	—	—	Lucas	RS1
47531	491075	SR now fitted as original	—	C	20°	125°	Wico	A974BZ
47536	491075	equipment.	—	A/C	20°	125°	Wico	—
—	—		—	C	—	—	Lucas	N2
—	—		—	A/C	—	—	Lucas	N2
is, it will be necessary to obtain with our Magneto an Intermediate Coupling 491983, from Stuart Turner, their number 130.								
—	—		—	A/C	—	—	B.T.H.	
—	—		—	C	30°	Vernier	B.T.H.	GA4
—	—		—	A/C	30°	Vernier	B.T.H.	GA4
47535	491075	Shallow cover 490860 may be required.	R	A/C	25°	125°	Wico	A936BZ & CJ936
47530	490986		U	C	30°	160°	F/Morse AM Wico	FMX1.2 B7 XH1961. XH2D
47535	491075		—	A/C	20°	125°	Wico	A576BZ
47530	491075	Up to WD 38332 and WLB 8732, turn gear 5 teeth clockwise.	U	C	30°	108°	Wico	*A906BZ
47530	491075	Up to WD42645 and WLB 12816, turn gear 2 teeth clock.	U	C	30°	108°	Wico	*CJ1215
47530	491075	Over WD 42645 and WLB 12816.	U	C	30°	108°	Orig. Equip.	*See *note* 5 *on page* 20.
47535	491075		R	A/C	20°	108°	Orig. Equip.	

For Flange position details see page 2.

(Note 1) A dust and water excluder is available as an optional extra, Part No. 492050, for fitting over the Impulse Starter where our magneto is base mounted.

(Note 2) *On earlier Navigator Mark I Engines, the original magneto was strap fixed ; when using replacement S.R. Magneto proceed as follows :—obtain coupling No. 487429 from Lucas and spindle No. IM84215 from Morris Motors ; fit together and substitute this assembly for the original engine-side driving member.

Modify engine base plate as shown in diagram, then fit this to magneto base with two bolts — bolt the whole to engine. Discard old fixing strap.

(Note 3) If it is required to fit an impulse starter to the E2 or E4 Kelvin Magnetos, adaptor GHS/R/1732 can be supplied for use with Flange 491373 and Impulse 47540, using original Sprocket, Clamp and Screws.

(Note 4) Mineapolis Moline, model GPA. If the magneto is to be vertically mounted, it will be necessary to springload the impulse starter pawls, using the original magneto springs shaped to fit.

(Note 5) Although on the clockwise versions of the Wolseley Sheep Shearing magnetos the original units have offset flanges, it is intended that our replacement should have the flange in a vertical position, and provided that the lag angle is set at 30° all will be well.