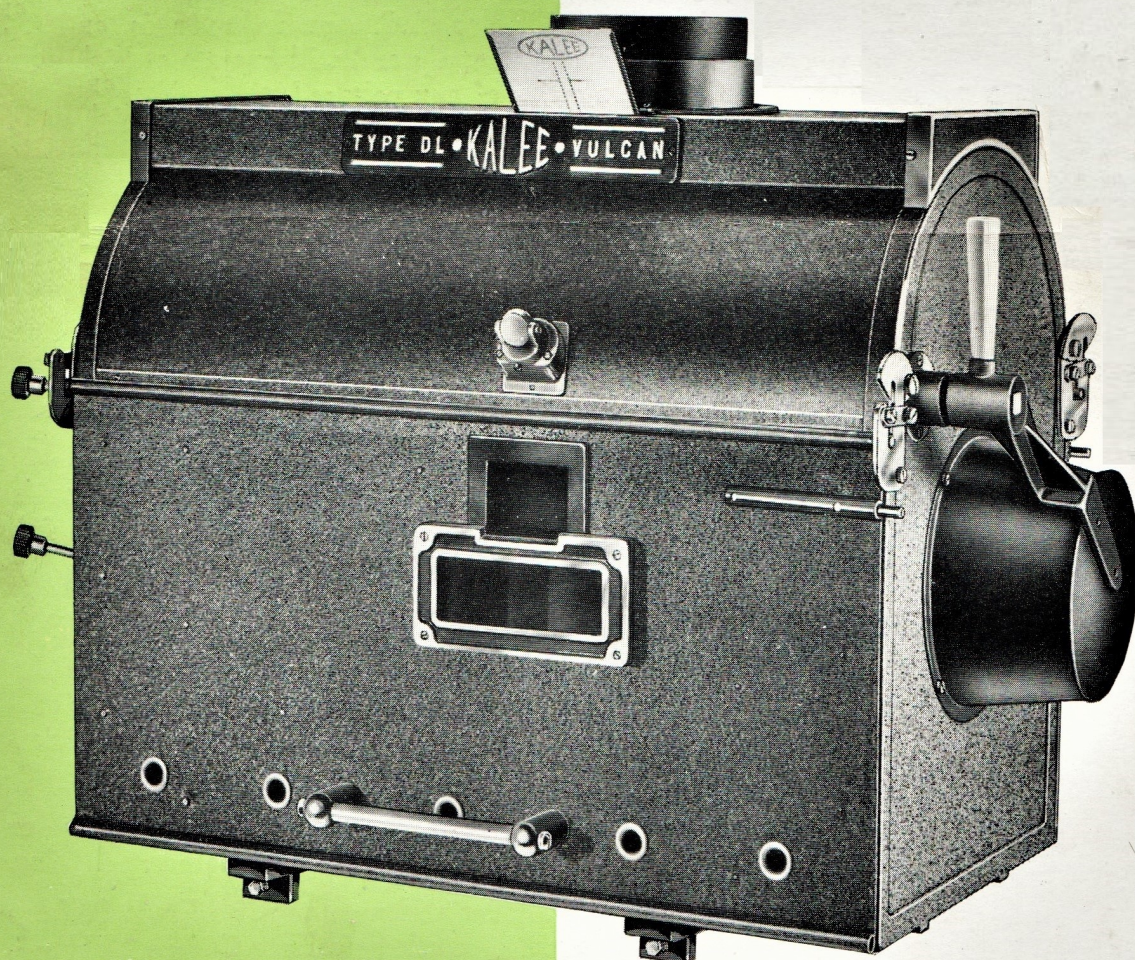


KALEE

"VULCAN"

TYPE D·L



HIGH INTENSITY

12"
DIAM.

REFLECTOR
ARC LAMP

For Alternating Current Supplies



'VULCAN' A.C. 12" REFLECTOR

Kalee "Vulcan" A.C. Arclamp (Type D.L.)

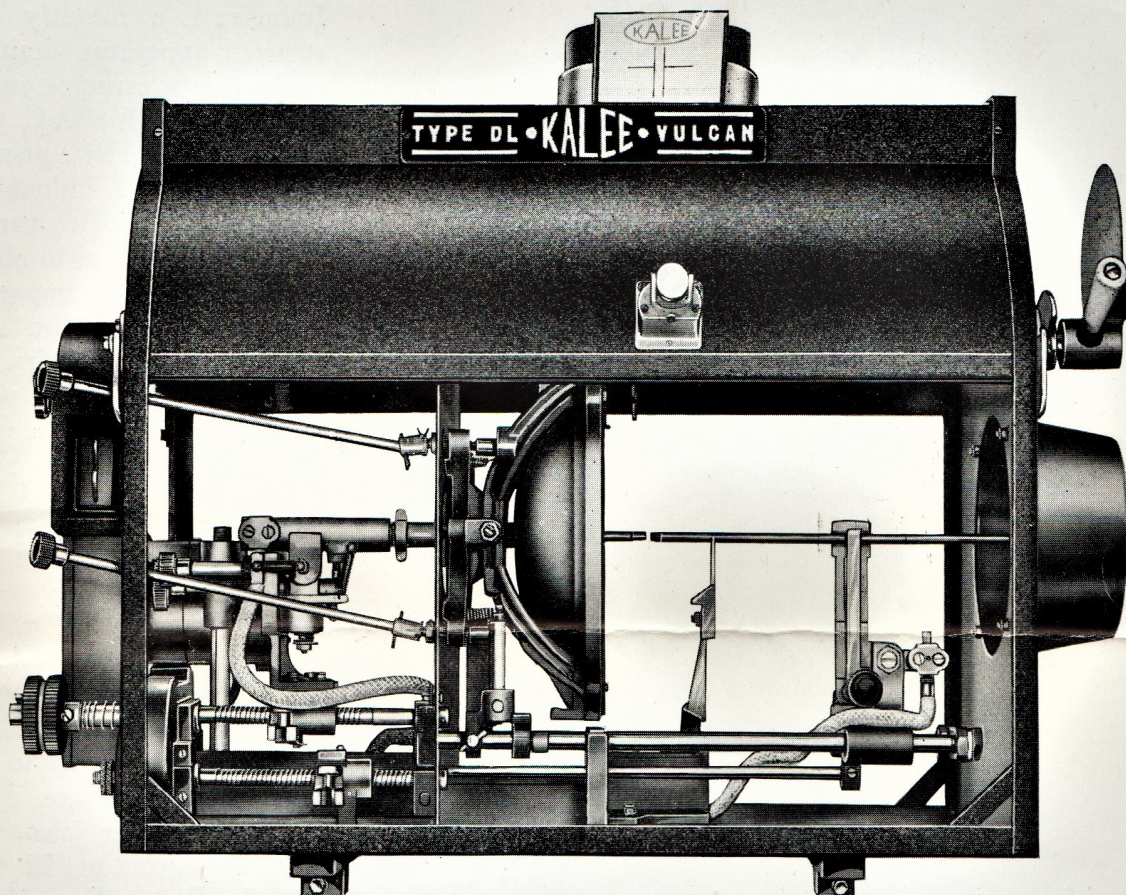
The Kalee "Vulcan" A.C. 12 ins. Reflector Arclamp has been specially developed to utilise Alternating Current Arc Carbons of the "Alternlux" type. The lamp is extremely efficient, particularly when operated in conjunction with the Kalee A.C. Arc Inductor, and provides brilliant illumination, capable of penetrating heavy smoke or fog-laden atmospheres, with power consumption between $1\frac{1}{2}$ and 3 Kilowatts only, and with consequent low operational costs.

The Kalee "Vulcan" A.C. Arclamp in combination with its ancillary equipment, the Kalee A.C. Arc Inductor is entirely independent of D.C. current supply and will operate at high efficiency on A.C. supply mains of any voltage between 200-250 volts or 100-120 volts, thus eliminating the former necessity for D.C. current generators or rectifiers.

The "Vulcan" A.C. Arclamp is of the typical rugged construction associated with Kalee Equipment, built to withstand hard, continuous operation, and presents the following outstanding features:

1. Extra Wide-Angle Light Collection—obtained by the 12 ins. diameter short-focus Aspherical Mirror, designed to collect the maximum illumination from the specified carbon diameters.
2. Kalee Potentiometer-controlled Automatic Carbon Feed—of proved reliability. The Potentiometer is "shaded" to provide complete control from zero to maximum r.p.m. over the full range of motor speed.
3. Forward carbon is definitely guided, ensuring maintenance of arc crater in correct focal position.
4. All working mechanism is located behind the mirror in the cool part of the lamphouse, and is instantly accessible for lubrication.
5. Carbon Feeds may be hand-operated simultaneously or separately. Quick Releases are fitted to facilitate recarboning.
6. Gravity type Carbon Holder will accommodate Front Carbons up to 10mm. diameter. Chuck type Rear Carbon Holder is furnished with spring collets.
7. Vertical and horizontal movements to Rear Carbons are provided.
8. Periscope and Image Card Screen with latitude limits provide a continuously visible image of arc crater.

ARC LAMP TYPE D.L.



SPECIFICATION

KALEE "VULCAN" A.C. 12 ins. REFLECTOR ARC LAMP TYPE D.L., WITH POTENTIOMETER CONTROLLED AUTOMATIC CARBON FEED. Complete in Lamphouse with Observation Windows, Periscope and Card Screen, Dowser, 12 ins. diameter Aspherical Mirror, Four Rear Carbon Collets, and Spanner.

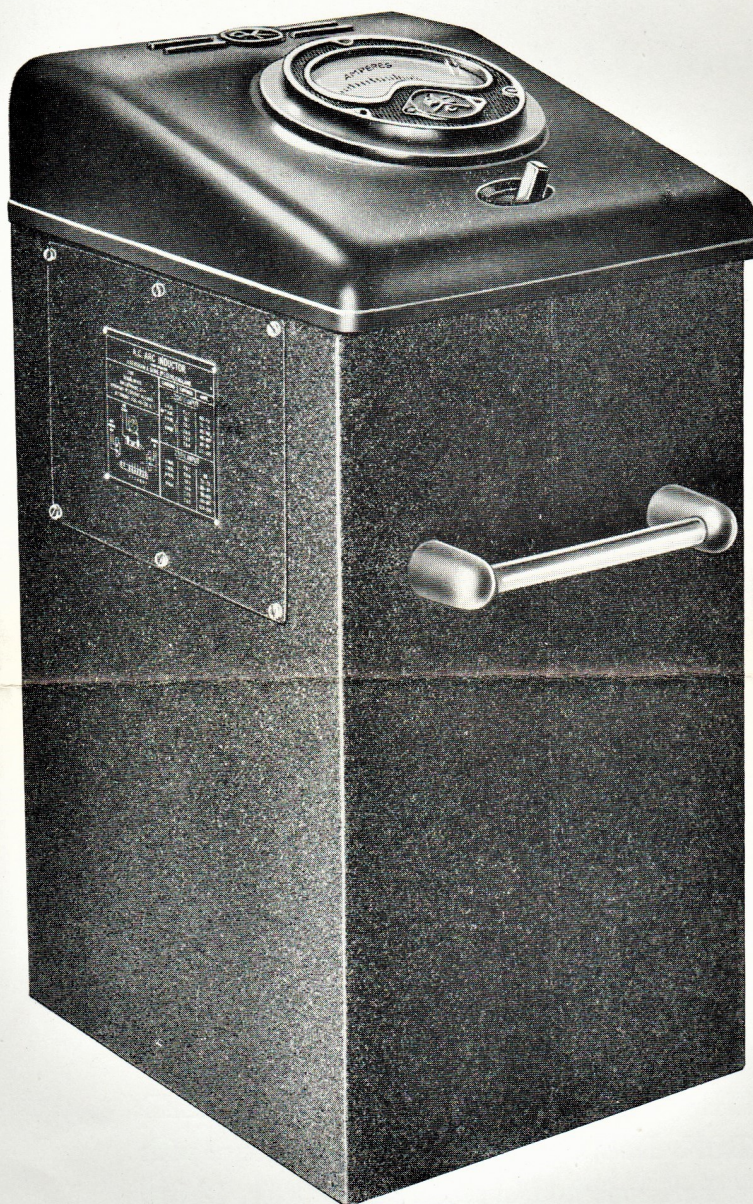
Price £135

Code Word: "VULEC."

Illustrations in this brochure are not binding; improvements are made without notice as occasion arises.



A.C. ARC INDUCTOR



The Kalee Type D.L. Alternating Current Arc Inductor is a robustly constructed apparatus, designed to provide a constant output of 26 volts for A.C. Arc operation. The primary winding of the Inductor is tapped to accept various mains voltages and to obtain the following amperages corresponding to the standard A.C. Carbon pairs.

Carbon Pairs	Amperes	Input Mains Voltage	
		200-220 Terminals	220-250 Terminals
6 mm.	60-65	C & 6	C & 7
7 mm.	70-75	C & 5	C & 6
8 mm.	90	C & 4	C & 5
9 mm.	105	2 & 6	2 & 7
10 mm.*	120	1 & 4	1 & 5

* 10 mm. Carbons are not available at the time of printing this brochure.

The foregoing table is given for projectionists' guidance, terminal combinations may be varied to suit actual supply voltage.

The Inductor also supplies an output of 52 volts D.C. for Carbon Feed Motors of Kalee Arc Lamps. This is accomplished by means of a special winding which feeds a Westinghouse metal rectifier, whose stability and long life are well known, and which is of ample size to meet the current requirements of Arc Feed Motors.

KALEE TYPE D.L. A.C. ARC INDUCTOR, complete with Ammeter, Main Switch, finished crinkle and stove black enamel with bright plated handles.

Price £39 10s.

Code Word: "INDAC."

Two types are manufactured (a) for operation off 200-250 v. mains and (b) for operation off 100-120 v. mains. Mains voltage should be stated when ordering.



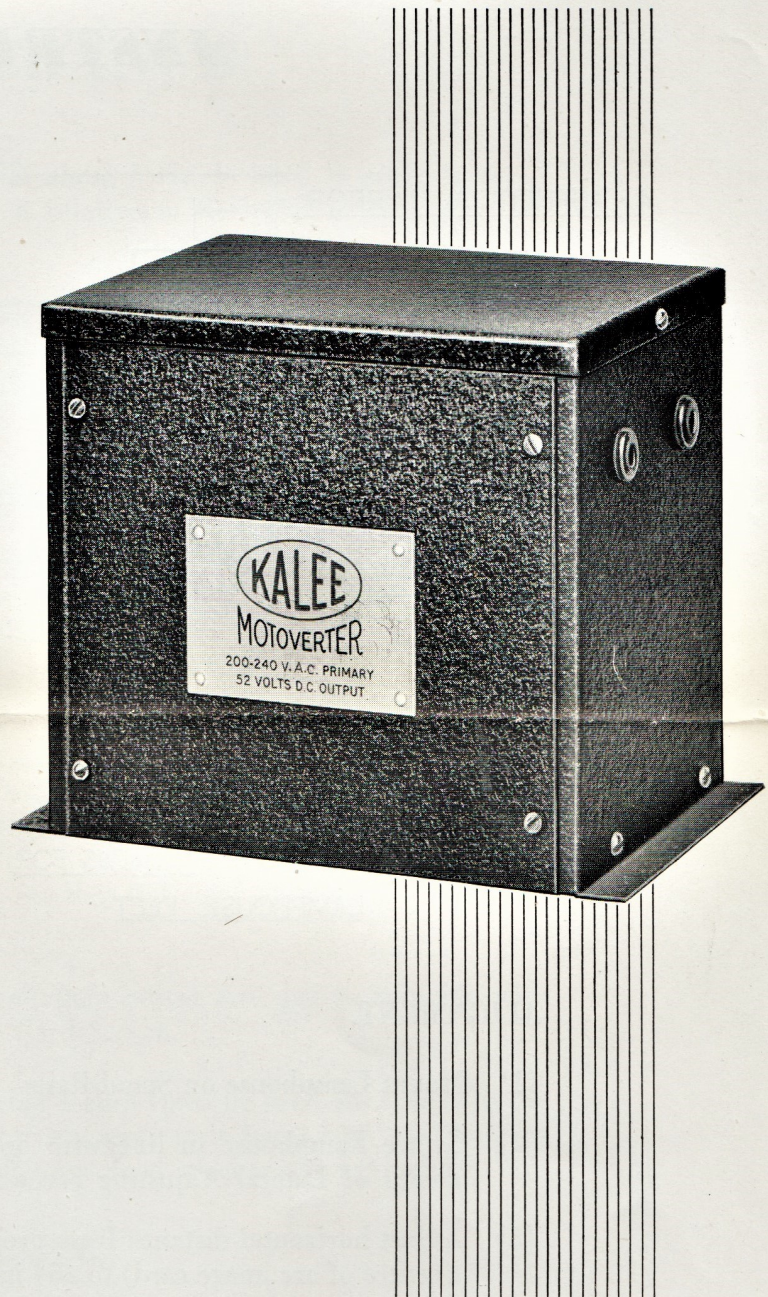
"MOTOVERTER"

The Kalee "Motoverter" provides a steady output of Direct Current (D.C.) for supplying the Carbon Feed Motors of Kalee "Vulcan" and other automatically fed Arc Lamps. It is put into operation by merely plugging into any A.C. mains supply of 200-240 volts.

The "Motoverter" is particularly useful where inductors of other make than Kalee Type D.L. are in use, since in conjunction with an A.C. inductor it forms a complete current supply for any automatically fed modern Arc Lamp, fitted with Universal or D.C. arc feed motor.

IT IS NOT NECESSARY TO USE A 'MOTOVERTER' WHERE A KALEE TYPE D.L. A.C. ARC INDUCTOR IS INSTALLED—the latter is equipped with D.C. output supply as explained opposite.

The A.C. Input from mains supply is converted to D.C. output at 52 volts by means of a transformer and Westinghouse metal rectifier, contained in a strong metal case, attractively finished with crinkle black enamel.



KALEE "MOTOVERTER," for A.C. mains 200-240 volts.

Price £10 10s.

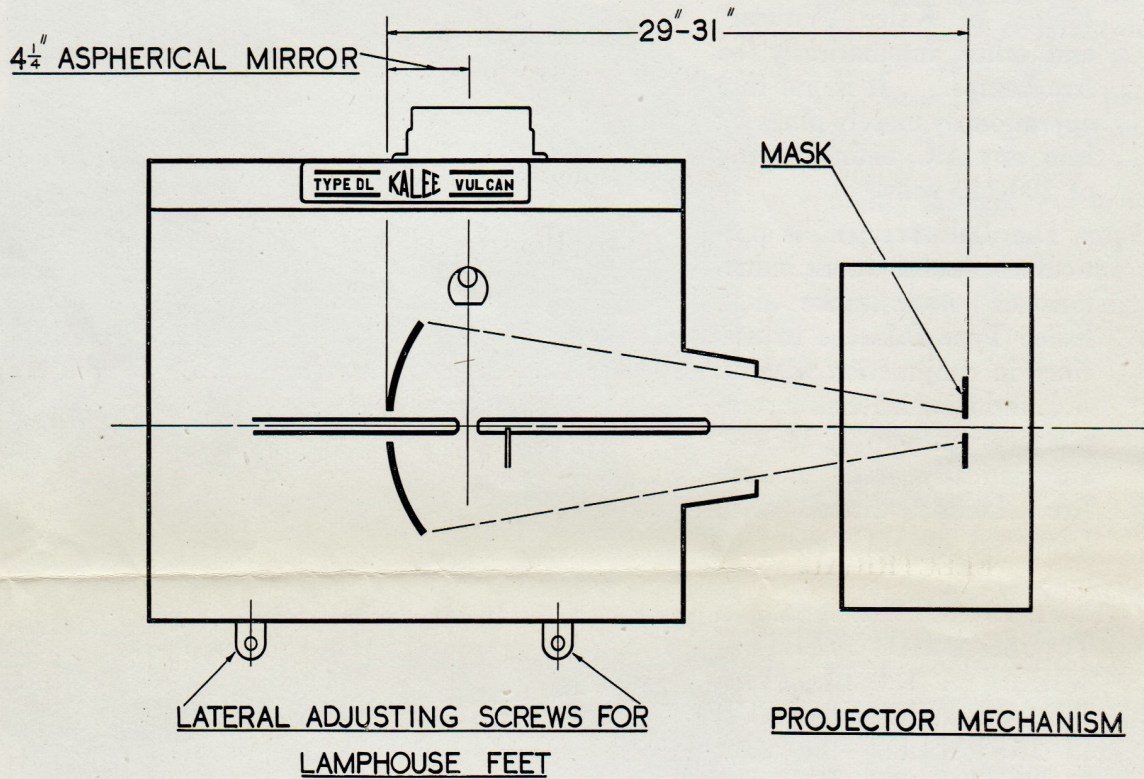
Code Word: "MOTOV."



'VULCAN'

A.C. ARC LAMP

INSTRUCTIONS for INSTALLATION



ALIGNMENT.

- (1) Mount Lamphouse on Stand Rails.
- (2) Centre Lamphouse in line with optical axis of projector by means of Lateral Adjusting Screws in Lamphouse Feet.
- (3) Adjust horizontal distance from projector mask to arc position (centre of arc image card) to $25\frac{3}{4}$ inches.
- (4) Clamp down Lamphouse with Bolts and Nuts provided.

CARBON ALIGNMENT.

- (1) Slacken mirror focussing clamp screw and slide mirror bracket as far forward as possible.
- (2) Insert carbon in Front Carbon Holder and allow it to rest in V-Guide.

TYPE D.L. Alternating Current 12" dia. Reflector Arc Lamp

LATION and MAINTENANCE

- (3) Slide Positive Carbon along V-Guide until it projects about $4\frac{1}{2}$ ins., and centre it relative to Reflector by adjusting the V-Guide.
- (4) Slide the Carbon back to normal Arc position.
- (5) Insert Carbon in Rear Holder and centre it relative to Front Carbon.

REFLECTOR ALIGNMENT.

Reflector should be set at position indicated in diagram. After striking the Arc, optimum results can be obtained by means of Reflector adjustments provided.

ELECTRICAL.

- (1) Connect Carbon leads and Motor leads to appropriate terminals of the Inductor as indicated on the Inductor Instruction Plate.
- (2) Before striking Arc, see that Reflector Shield and Dowser are down.
- (3) Strike Arc slowly and then adjust Arc gap to coincide with limits on Arc Image Card Screen.
- (4) It is recommended that 1-amp fuses be used (as fitted) in the Motor Circuit: such fuses serve to indicate any "stiffness" or maladjustment in the Arc feed mechanism by melting.

AUTOMATIC CARBON FEED.

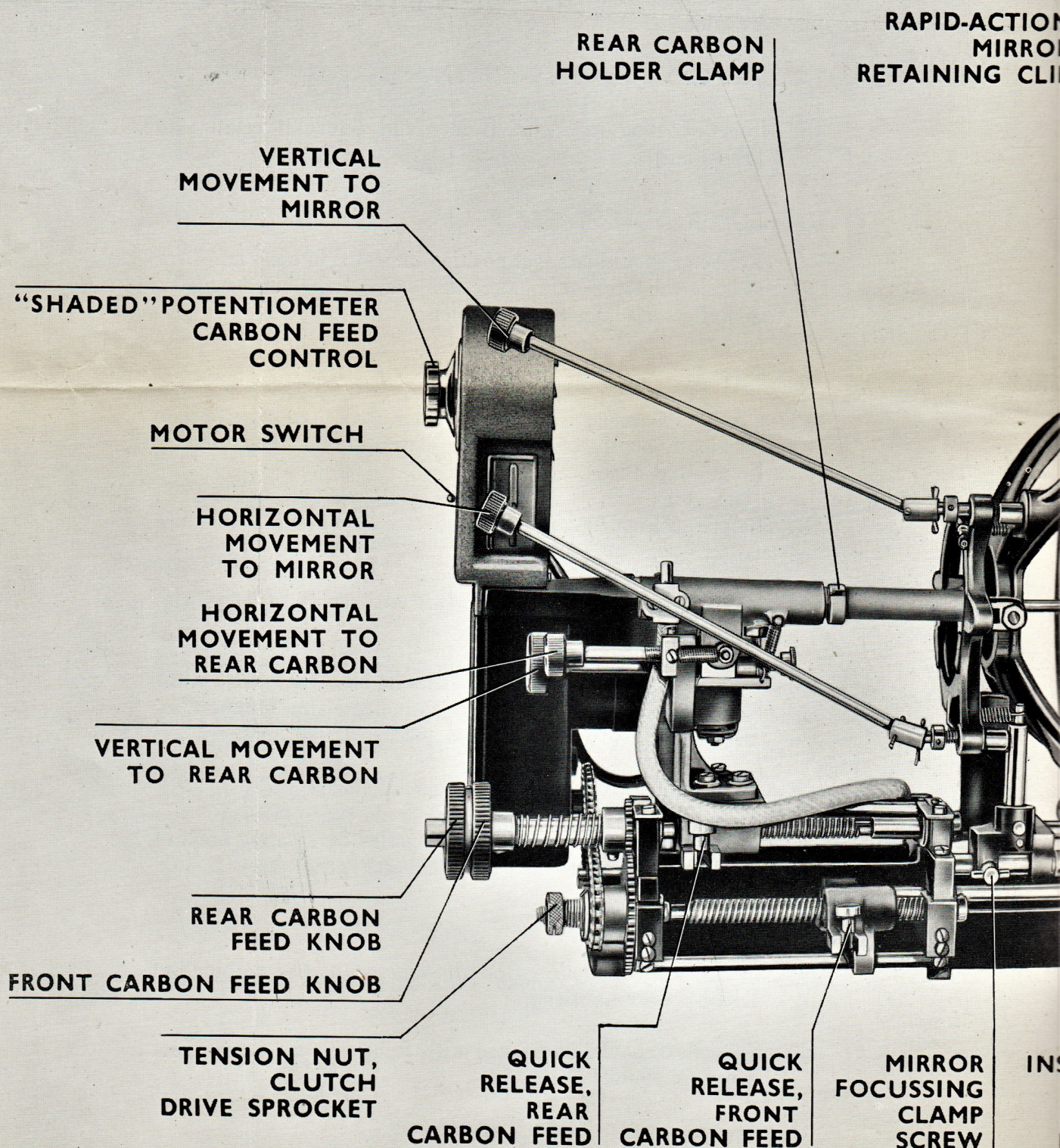
The speed of Carbon Feed is controlled by rotating knob of the Potentiometer (clockwise to increase speed).

LUBRICATION.

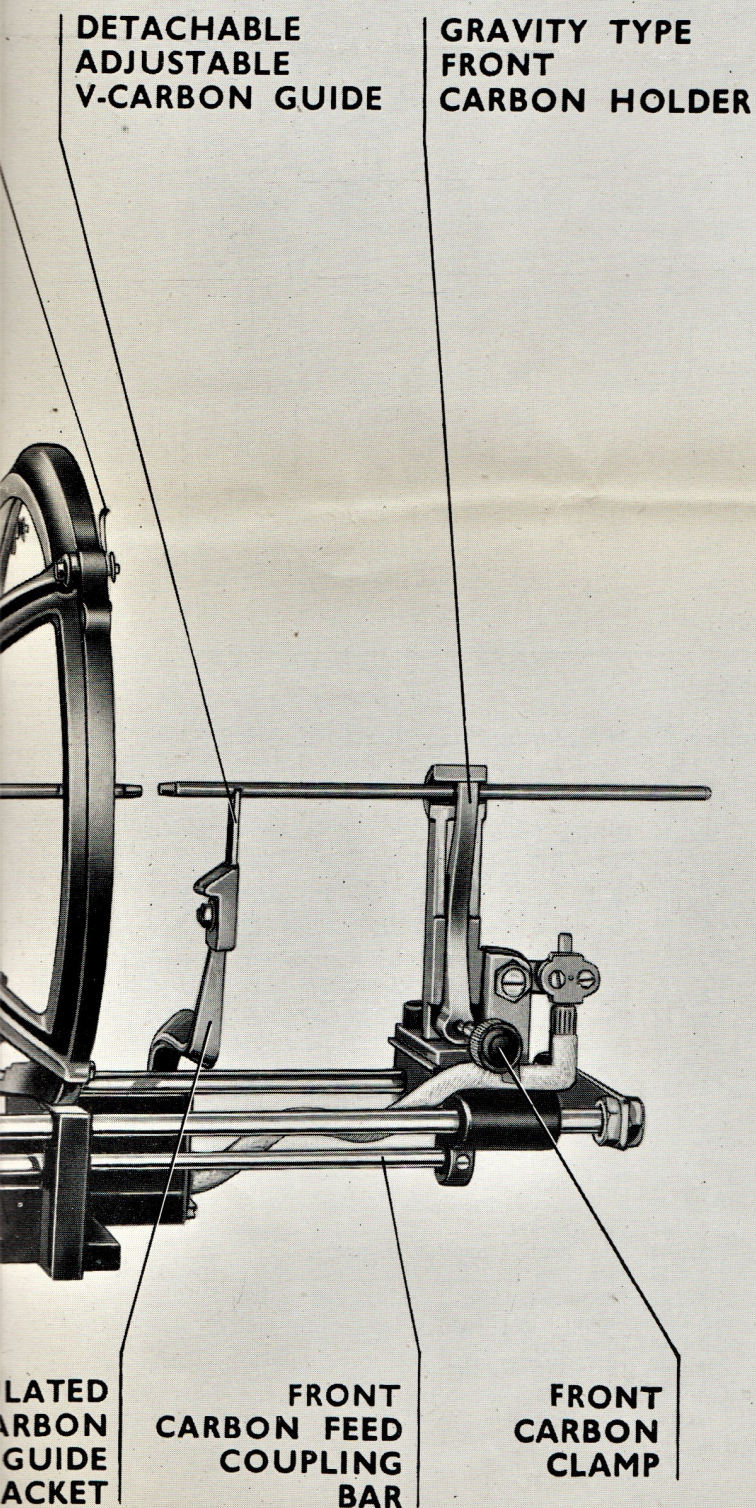
- (1) Oil Feed Screw Bearings on alternate days. Use nothing but KALEE Gear Lubricant.
- (2) Gear Box should be packed with Lubricating Grease about every six months.



'VULCAN' A.C. HIGH



INTENSITY REFLECTOR ARC LAMP TYPE D.L.



ALTERNALUX CARBON COMBINATIONS

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Carbon	Current	Arc Volts
6 m.m.	60 amps.	26 v.
7 m.m.	65-75 amps.	26 v.
8 m.m.	80-90 amps.	26 v.
9 m.m.	95-105 amps.	26 v.
*10 mm.	110-120 amps.	26 v.

* when available

★

LUBRICATION:

KALEE GEAR BOX
OIL MUST BE USED
EXCLUSIVELY



SPARE PARTS

KALEE "VULCAN" A.C. ARC LAMP TYPE D.L.

SPARE PARTS

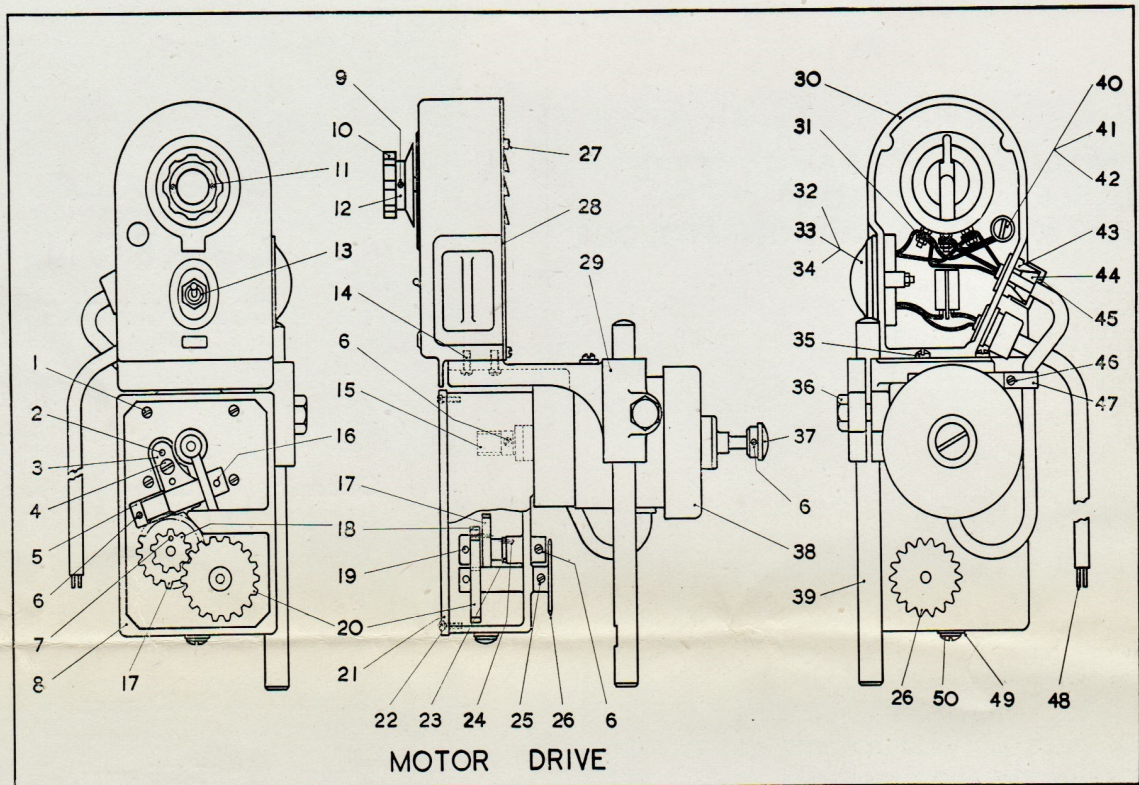


PLATE 1

IMPORTANT: Quote Serial Number When Ordering Spare Parts.

EACH				EACH			
No.	£	s.	d.	No.	£	s.	d.
A.C. 1 Screw Sec. Motor			6	A.C.26 Driving Sprocket		6	0
A.C. 2 Pin for Worm Bearing			6	A.C.27 Screw Sec. Cover			6
A.C. 3 Bearing		7	6	A.C.28 Resistance Box Cover		1	6
A.C. 4 Screw Sec. Worm and Wheel			6	A.C.29 Motor Bracket		10	9
A.C. 5 Worm		5	6	A.C.30 Resistance Box	2	3	6
A.C. 6 Screw Sec. Worm and Button			6	A.C.31 4 B.A Tag			6
A.C. 7 Pin for Gear			6	A.C.32 Fuse Holder Base	Complete	5	0
A.C. 8 Gear Box	2	5	0	A.C.33 Fuse Holder Cap		1	0
A.C. 9 Screw Sec. Knob for Potentiometer			6	A.C.34 Fuse	Spare Fuse		
A.C.10 Knob for Potentiometer		4	0	A.C.35 Screw Sec. Gear Box			6
A.C.11 Screw Sec. Potentiometer			6	A.C.36 Screw Sec. Pillar			6
A.C.12 Potentiometer (140 ohms)	1	10	0	A.C.37 Motor Button		2	9
A.C.13 Single Pole Toggle Switch		2	6	A.C.38 Motor and Cable			
A.C.14 Screw Sec. Resistance			6	A.C.39 Motor Pillar		2	3
A.C.15 Motor Worm		5	6	A.C.40 Resistance Peg		1	3
A.C.16 Worm Wheel, Spindle and Pin		14	6	A.C.41 Resistance Screw		1	0
A.C.17 Worm Wheel		10	0	A.C.42 5 Watts Resistance		4	6
A.C.18 Driving Gear (Low Ratio)		3	0	A.C.43 Flex. Socket		2	9
A.C.19 Collar, Pin and Spindle		2	6	A.C.44 Flex Bush (Supplied in prs.)		1	0
A.C.20 Driven Gear, Pin and Spindle		11	6	A.C.45 Flex Cap		2	3
A.C.21 Gear Box Cover		15	0	A.C.46 Screw Sec. Clip			6
A.C.22 Screw Sec. Gear Box Cover			6	A.C.47 Cable Clip			8
A.C.23 Worm Wheel Thrust Ring	1	2		A.C.48 Line Cable		9	6
A.C.24 Pin for Thrust Ring			6	A.C.49 Oil Plug Washer			6
A.C.25 Screw Sec. Sprocket			6	A.C.50 Oil Plug		1	0

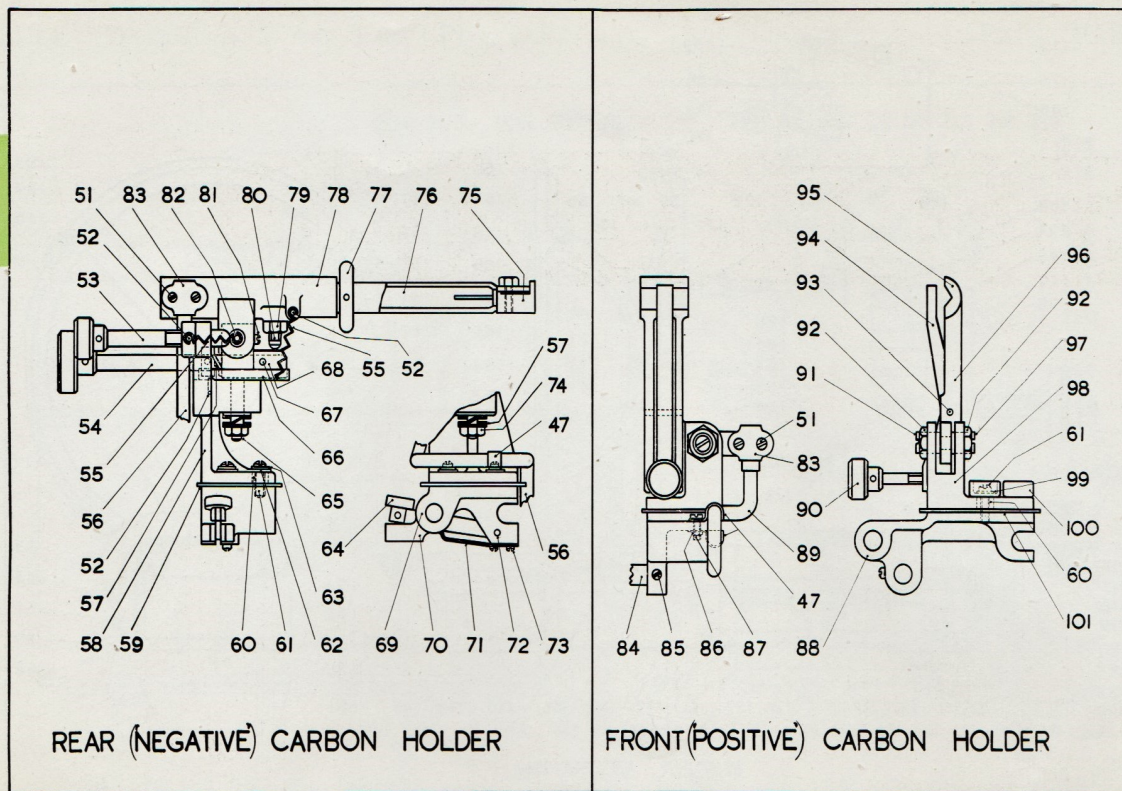


PLATE 2

IMPORTANT: Quote Serial Number When Ordering Spare Parts.

EACH				EACH			
No.	£	s.	d.	No.	£	s.	d.
A.C.51 Screw, Sec. Clamp			6	A.C.76 Collet, 5, 6, 7, 8, 9, 10 m/m as Rqd.		5	0
A.C.52 Pin for Tension Spring			6	A.C.77 Complete Neg. Carbon Holder		10	0
A.C.53 Neg. Pivot Control Knob and Screw	6	0		A.C.78 Swivel Bracket, Neg. Holder		16	0
A.C.54 Neg. Tilt Control Knob with Collar and Pin	8	0		A.C.79 Nut for Tilt Stud			6
A.C.55 Neg. Control Spring	1	0		A.C.80 Tilt Stud		1	0
A.C.56 Neg. Carbon Lead	15	0		A.C.81 Screw Sec. Spindle			6
A.C.57 Spring Washer			6	A.C.82 Spindle for Swivel Bracket		2	0
A.C.58 Main Bracket Neg. Carbon Holder	15	0		A.C.83 Clamp for Carbon Lead		2	0
A.C.59 Neg. Carbon Holder Insulation	2	0		A.C.84 Pos. Carbon Driving Tube		4	0
A.C.60 Insulating Bush	1	0		A.C.85 Screw Sec. Pos. Driving Tube			6
A.C.61 Screw Sec. Main Bracket	1	6		A.C.86 Nut for 87			6
A.C.62 Insulating Washer			6	A.C.87 Screw Sec. Cable Clip			6
A.C.63 Washer			6	A.C.88 Pos. Carbon Holder Base		9	9
A.C.64 Neg. Feed Lever (with knob & pin)	3	3		A.C.89 Pos. Carbon Lead		15	0
A.C.65 Pillar Bracket, Neg. Carbon Holder	9	0		A.C.90 Pos. Carbon Clamp Screw		5	0
A.C.66 Stop Plate	1	6		A.C.91 Pos. Carbon Pivot Screw (Short)		1	3
A.C.67 Pin Sec. Cam.			6	A.C.92 Locknut Pivot Screw			9
A.C.68 Cam	4	6		A.C.93 Pivot Pin, Pos. Carbon Clamp			6
A.C.69 Complete Neg. Carriage with (64, 70, 71, 72, 73)	1	1	0	A.C.94 Moveable Clamp		5	0
A.C.70 Neg. Carbon Slide Bkt.	15	0		A.C.95 Fixed Clamp		15	0
A.C.71 Spring for Feed Lever	1	0		A.C.96 Complete Pos. Clamp incl. 93, 94, 95	1	0	6
A.C.72 Pivot Pin for Feed Lever			9	A.C.97 Pos. Carbon Pivot Screw (Long)		1	6
A.C.73 Screw Sec. Spring			6	A.C.98 Pos. Carbon Pivot Block		10	0
A.C.74 Nut for Carbon Holder Pillar			6	A.C.99 Washer			6
A.C.75 Carbon Saver, 5, 6, 7, m/m as Rqd.	6	0		A.C.100 Insulating Screw Cup		1	0
				A.C.101 Pos. Carbon Holder Insulation		2	0

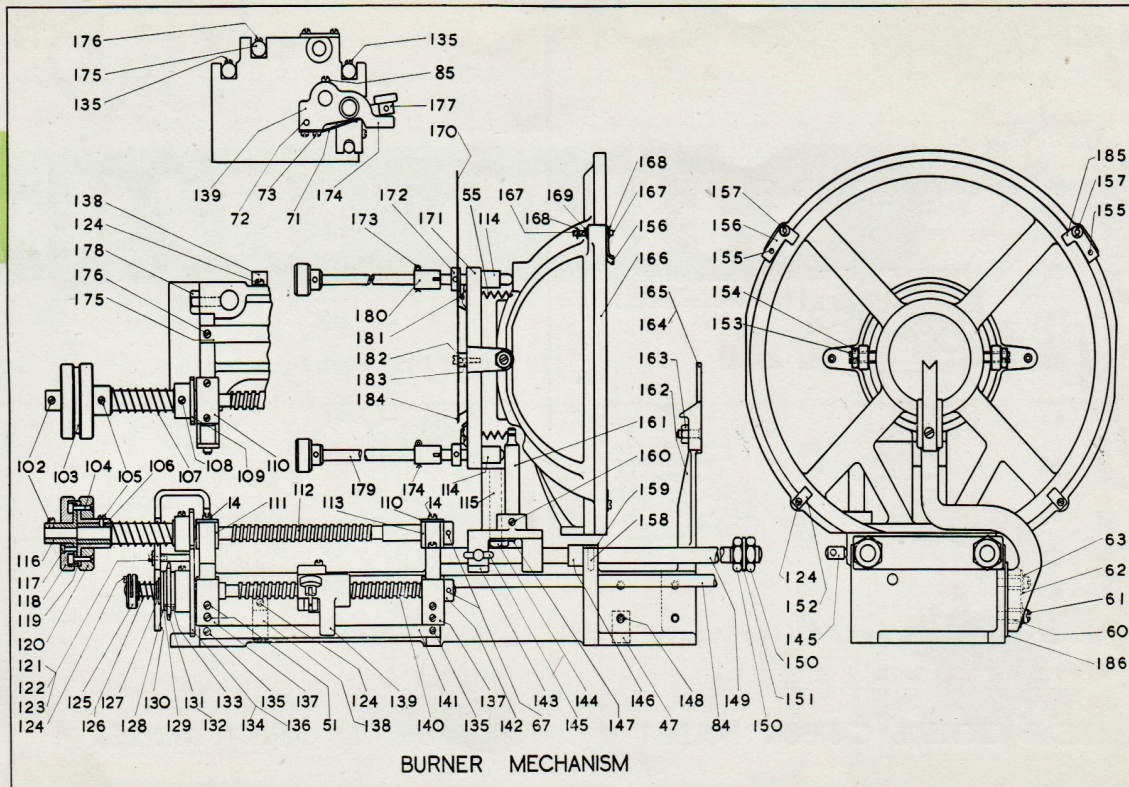


PLATE 3

IMPORTANT: Quote Serial Number When Ordering Spare Parts.

EACH						EACH					
No.		£	s.	d.	No.		£	s.	d.		
A.C.102	Screw Sec. Carb. Adj. Knob			6	A.C.145	Tommy Screw	1		6		
A.C.103	Complete Carb. Adj. Knob incl. 104, 116, 117, 118, 119, 120	1	2	0	A.C.146	Stop Tube, Mirror Bkt.			6		
A.C.104	Screw Sec. Pos. Knob		1	0	A.C.147	Washer for Swivel Spindle			6		
A.C.105	Stop Screw		1	0	A.C.148	Screw Sec. Cable Clip			6		
A.C.106	Pos. Drive Tube		4	0	A.C.149	Guide Rod, Pos. Carbon		4	6		
A.C.107	Spring Pos. Handle		1	0	A.C.150	Locknut		3	0		
A.C.108	Screw Sec. Pos. Driving Tube			6	A.C.151	Tie Bar, Pos. Guide Rods		2	0		
A.C.109	24 T. Gear		6	6	A.C.152	Mirror Clip			9		
A.C.110	Clamp Plate, Neg. Feed Screw		1	0	A.C.153	Mirror Pivot Screw			9		
A.C.111	Rear Bearing Feed Screw		3	6	A.C.154	Nut for Pivot Screw			6		
A.C.112	Neg. Feed Screw	12	0		A.C.155	Stop Pin, Mirror Clip			6		
A.C.113	Front Bearing Feed Screw		3	6	A.C.156	L.H. Mirror Hinged Clip	1	0	0		
A.C.114	Mirror Tilt Stop Tube		1	0	A.C.157	Split Pin for Mirror Clip			6		
A.C.115	Spindle Mirror Swivel Bkt.		3	0	A.C.158	Screw Sec. Clamp Plate			6		
A.C.116	Neg. Feed Boss		6	6	A.C.159	Clamp Plate Pos. Guide Rod	1	9			
A.C.117	Screw Sec. Neg. Knob			6	A.C.160	Screw Sec. Stop Pillar			6		
A.C.118	Neg. Feed Knob		2	0	A.C.161	Stop Pillar, Mirror Bkt.		2	0		
A.C.119	Pos. Feed Boss		8	0	A.C.162	Pos. Carbon Guide Bkt.		15	0		
A.C.120	Pos. Feed Knob		2	0	A.C.163	Nut for Carbon Guide			6		
A.C.121	Screw Sec. Guard			6	A.C.164	Pos. Carbon Guide 6, 7, 8, 9 and 10 m/m as reqd.		8	0		
A.C.122	Washer for Guard			6	A.C.165	Pos. Carbon Guide 11, 12, 13, and 14 m-m as reqd.		8	0		
A.C.123	Stud Sec. Guard		2	0	A.C.166	Mirror Holder	2	12	0		
A.C.124	Screw Sec. Clutch Nut			6	A.C.167	Pin for Hinged Clip			9		
A.C.125	Adj. Nut, Clutch		1	8	A.C.168	Washer for Hinged Clip			6		
A.C.126	Clutch Spring		1	0	A.C.169	Hinged Clip Spring			6		
A.C.127	Collar for Spring			9	A.C.170	Heat Shield Upper Half		16	6		
A.C.128	Keywasher for Clutch		1	0	A.C.171	Swivel Bkt.	1	1	0		
A.C.129	Pin for Fabroil Disc			6	A.C.172	Mirror Tilt Screw and Collar		2	6		
A.C.130	Gear Guard	1	1	0	A.C.173	Split Pin for Connecting Tube			6		
A.C.131	Friction Sprocket 15 Teeth		4	0	A.C.174	Pos. Carbon Feed Bkt.		12	0		
A.C.132	Chain		10	0	A.C.175	Guide Rod Neg. Bkt.		3	9		
A.C.133	Friction Discs		1	0	A.C.176	Screw Sec. Neg. Guide Rod			6		
A.C.134	Screw Sec. 48 Teeth Gear			6	A.C.177	Pos. Feed Lever		3	3		
A.C.135	Screw. Sec. Pos. Guide Rod			6	A.C.178	Screw Sec. Motor Pillar			6		
A.C.136	48 T. Gear		12	0	A.C.179	Mirror Control Knob and Spindle		6	3		
A.C.137	Clamp Plate Pos. Feed Screw		1	0	A.C.180	Connecting Tube		1	3		
A.C.138	Cable Clip (Double)			9	A.C.181	Pin for Mirror Spring			9		
A.C.139	Comp. Pos. Carriage Incl. 71, 72, 73, 174, 177		18	0	A.C.182	Screw Sec. Heat Shield			6		
A.C.140	Pos. Feed Screw		12	0	A.C.183	Spacing Collar			9		
A.C.141	Guide Rod, Pos. Feed		3	0	A.C.184	Heat Shield Lower Half		10	0		
A.C.142	Stop Collar		1	0	A.C.185	R.H. Hinged Clip		1	0		
A.C.143	Focussing Bkt.	1	9	0	A.C.186	Carbon Guide Insulation		1	6		
A.C.144	Nut for Swivel Spindle			6							

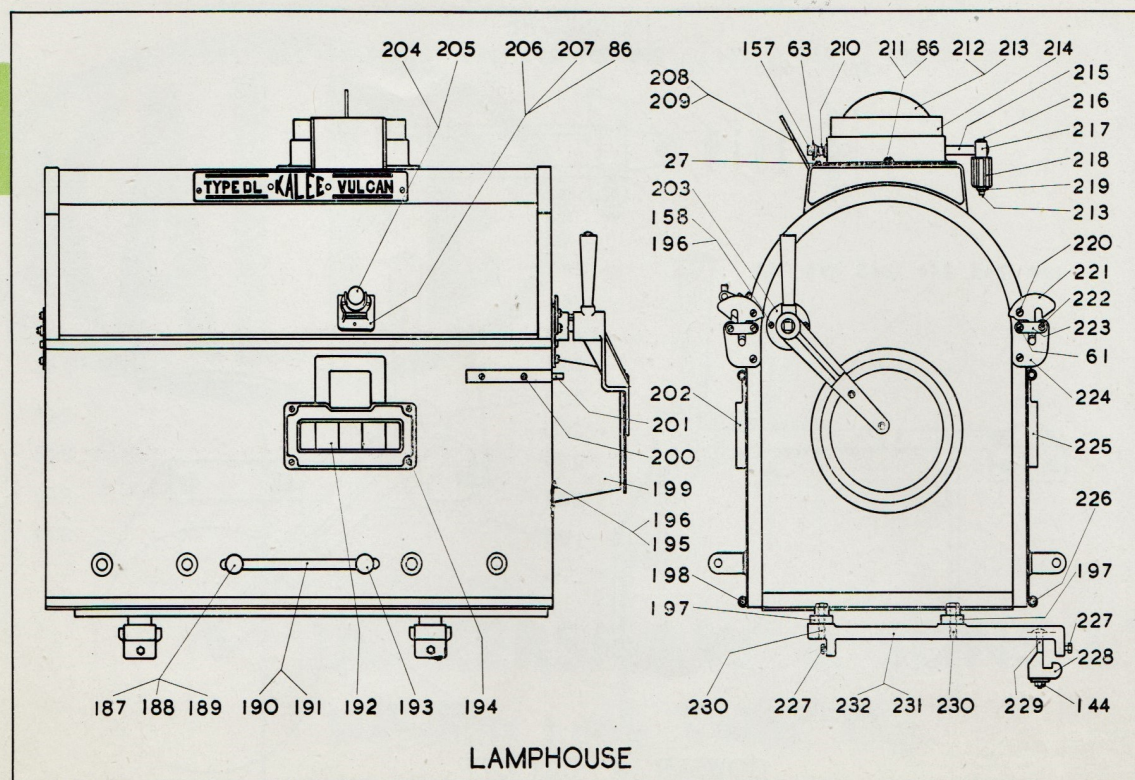


PLATE 4

IMPORTANT: Quote Serial Number When Ordering Spare Parts.

EACH				EACH			
No.	£	s.	d.	No.	£	s.	d.
A.C.187 Pillar for Handle (Tapped)	5	6		A.C.209 Card Holder	1	9	
A.C.188 Screw Sec. Handle		6		A.C.210 Spring for Chimney Spindle	1	0	
A.C.189 Nut for Pillar		6		A.C.211 Screw Sec. Chimney		6	
A.C.190 Door Handle	4	6		A.C.212 Chimney Damper	8	0	
A.C.191 Complete Door Handle incl. 187, 188, 189, 190, 193	17	6		A.C.213 Screw Sec. Damper		6	
A.C.192 Complete Window incl. Glasses, Gauze and Slide	15	0		A.C.214 Complete Chimney	3	10	0
A.C.193 Pillar for Handle (Plain)	5	0		A.C.215 Damper Spindle	4	6	
A.C.194 Screw Sec. Window Frame		6		A.C.216 Screw Sec. Handle		6	
A.C.195 Screw Sec. Cone		6		A.C.217 Pin for Handle	3	0	
A.C.196 Nut Sec. Cone		6		A.C.218 Damper Handle	1	6	
A.C.197 Packing Washer	2	0		A.C.219 Washer		6	
A.C.198 R.H. Door	7	10	0	A.C.220 Pivot Screw for Latch	1	0	
A.C.199 Cone	1	2	0	A.C.221 Door Latch	1	0	
A.C.200 Screw Sec. Latch Bar		6		A.C.222 Screw Sec. Door Hinge Plate		6	
A.C.201 Latch Bar	4	6		A.C.223 Door Hinge Cross Plate		6	
A.C.202 Window Frame for R. H. Door	1	3	6	A.C.224 Door Hinge Plate	3	6	
A.C.203 Front Brg. for Dowser Spindle	5	6		A.C.225 Window Frame for L.H. Door.....	10	6	
A.C.204 Complete Periscope incl. 250, 251, 252, 257, 253, 254, 255, 256, 124, 258, 259	1	8	6	A.C.226 Complete L.H. Door	7	5	0
A.C.205 Screw Sec. Periscope		6		A.C.227 Adjusting Screw		6	
A.C.206 Base for Periscope	4	6		A.C.228 Clip	1	0	
A.C.207 Screw Sec. Base for Periscope		6		A.C.229 Carriage Bolt		6	
A.C.208 Cover Strip for Card	1	3		A.C.230 Screw Sec. Under Fitting		9	
				A.C.231 Lamphouse Foot— $\frac{3}{4}$ "	12	0	
				A.C.232 Lamphouse Foot— $\frac{3}{8}$ "	15	0	

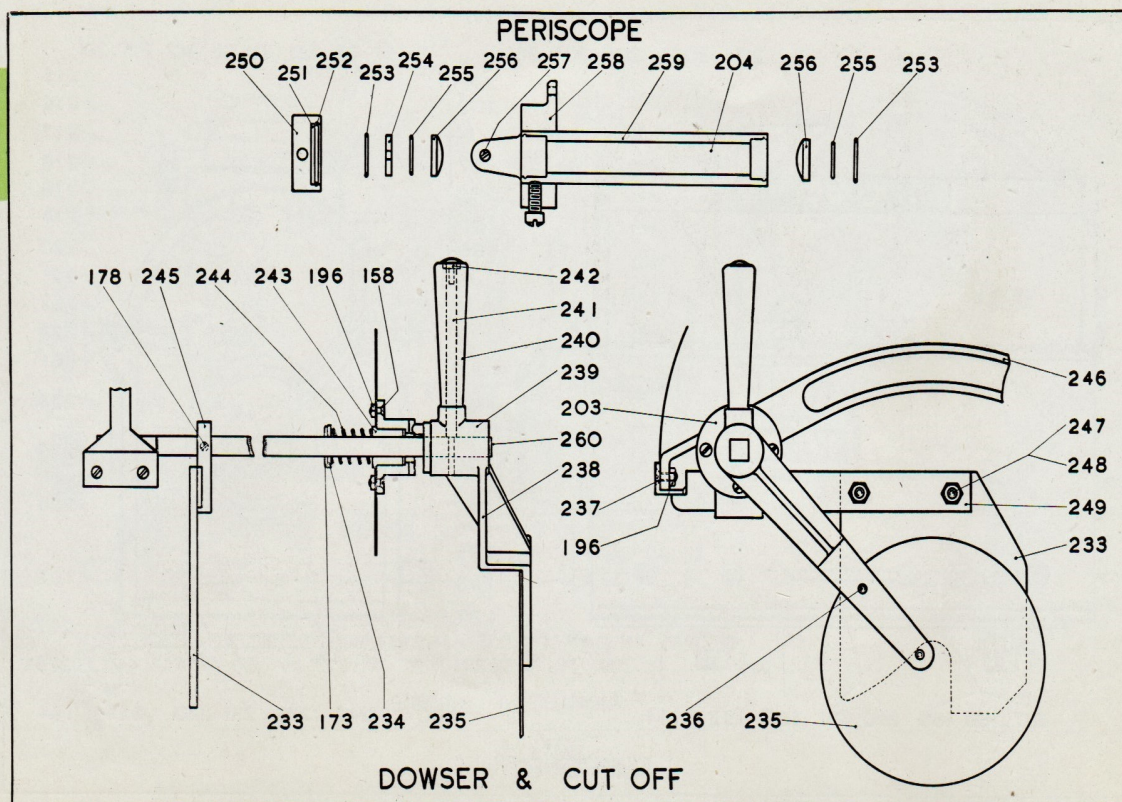


PLATE 5

IMPORTANT: Quote Serial Number When Ordering Spare Parts.

No.	EACH			No.	EACH		
	£	s.	d.		£	s.	d.
A.C.233 Dowser	4	6		A.C.247 Screw Sec. Dowser			6
A.C.234 Washer		6		A.C.248 Nut for Screw Sec. Dowser			6
A.C.235 Light Cut Off	4	0		A.C.249 Dowser Arm	2	9	
A.C.236 Screw Sec. Light Cut Off		6		A.C.250 Mirror Holder, periscope	3	0	
A.C.237 Screw Sec. Dowser Brg. Bkt.		6		A.C.251 Mirror, periscope	2	6	
A.C.238 Arm for Light Cut Off	1	1	3	A.C.252 Spring Ring (Mirror Holder)		6	
A.C.239 Complete Light Cut Off, incl. 238, 240, 235, 236, 241, 242, 260	1	15	0	A.C.253 Spring Ring for Barrel		6	
A.C.240 Cut Off Handle	2	0		A.C.254 Washer for Lens		6	
A.C.241 Stud for Cut Off Handle	1	6		A.C.255 Packing Washer		6	
A.C.242 Screw Sec. Cut Off Handle		9		A.C.256 Periscope Lens	2	6	
A.C.243 Bush, Dowser Spindle	2	6		A.C.257 Bolt Sec. Mirror Holder		6	
A.C.244 Spring for Dowser Spindle	2	0		A.C.258 Periscope Bracket	4	3	
A.C.245 Dowser Bkt.	4	6		A.C.259 Periscope Barrel	3	0	
A.C.246 Bracket for Dowser Spindle	1	0	0	A.C.260 Dowser Spindle	2	6	



Manufactured by

A. KERSHAW & SONS LTD

Harehills Lane, Leeds, Eng.

for

G.B.-KALEE LIMITED

NATIONAL HOUSE

60-66 WARDOUR STREET

LONDON, W.1

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Telegrams: Gebekay Wesdo London

B R A N C H E S

BELFAST : 49 Donegal Street

Telephone 27065

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