

# LUCAS

## STARTING MOTORS

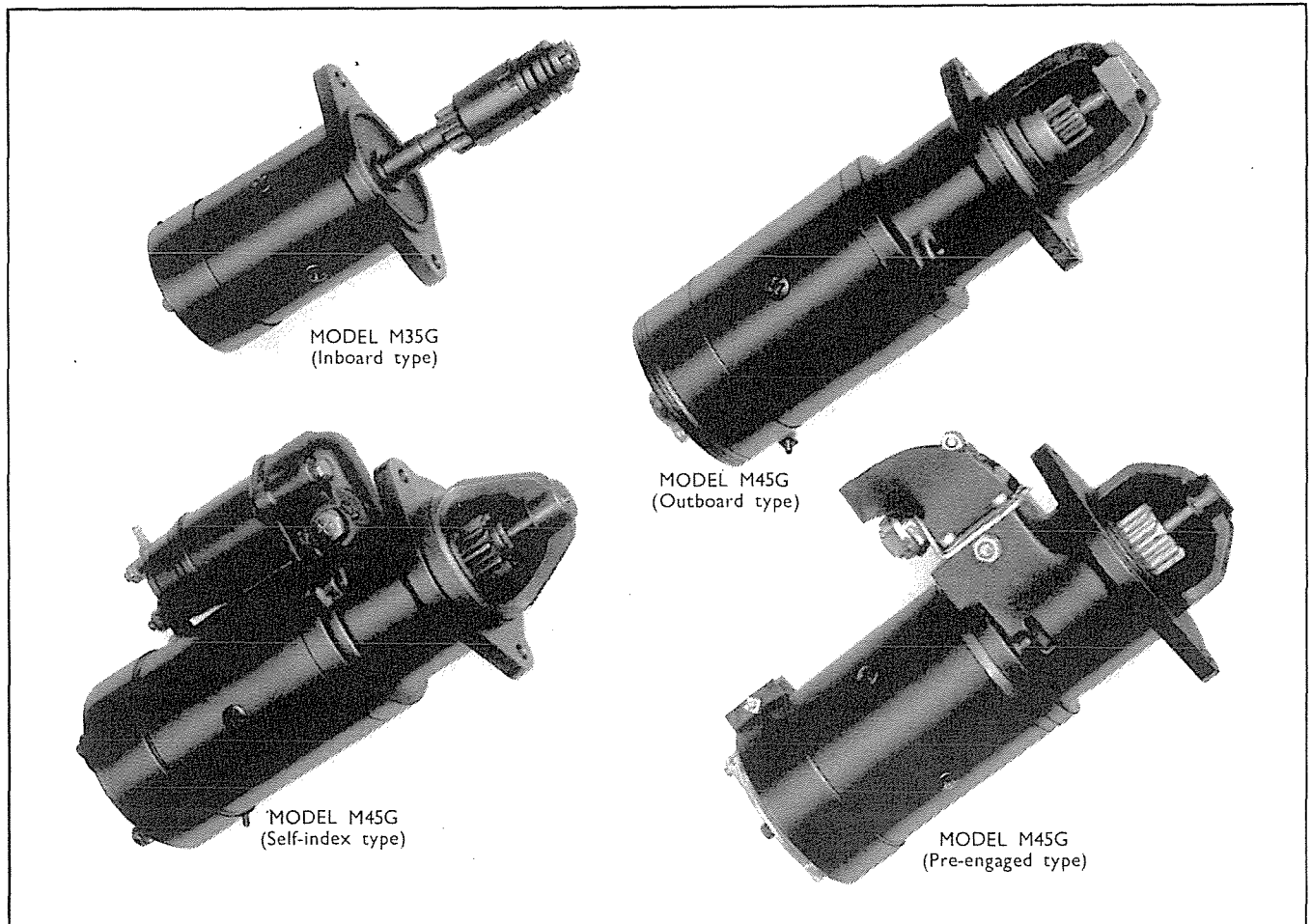
SECTION  
N

### STARTING MOTORS

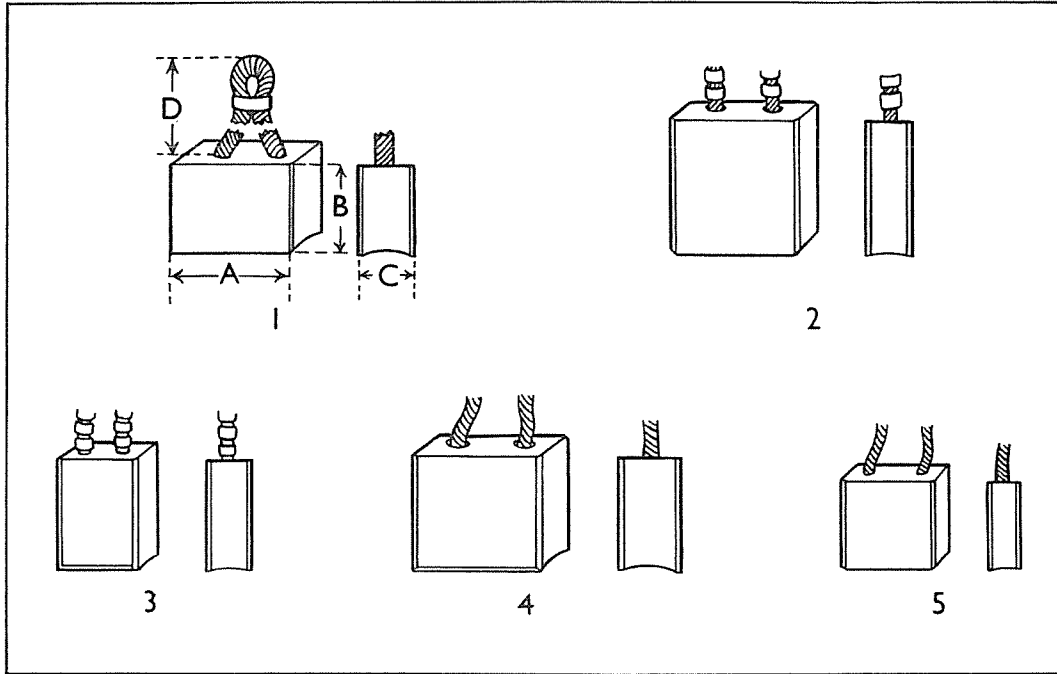
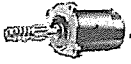
#### Model Interpretation

The symbols making up the model indicate the characteristics of each machine, i.e., M35G—Starting Motor, 3½" diameter yoke, die-cast commutator end bracket or frame.

Prefix	Suffix
M	Starting motor.
35	3.5" diameter yoke.
325	3.25" diameter yoke.
418	4½" diameter yoke.
45	4.5" diameter yoke.
	G Die-cast commutator end bracket or frame.
	G-1 Die-cast commutator end bracket or frame, 4-brush machine.
	L Long type machine.



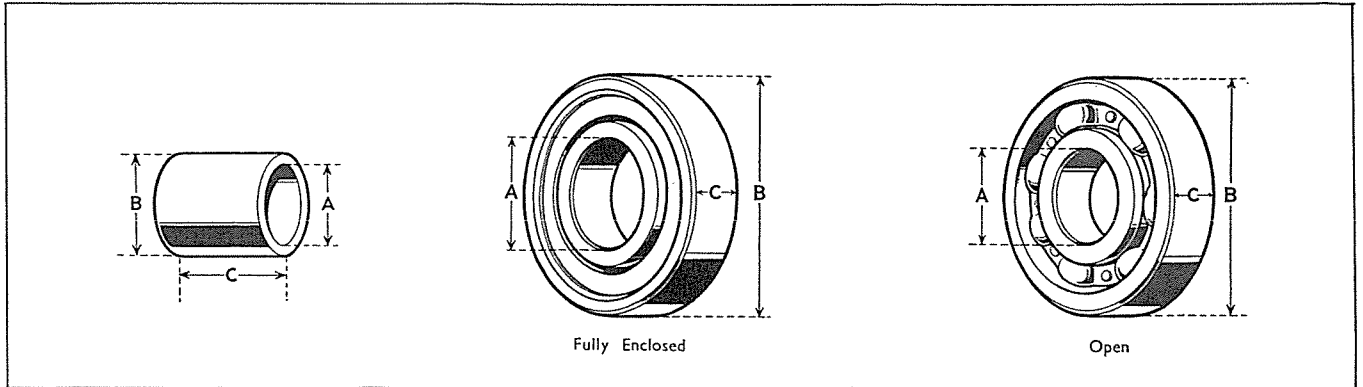
# BRUSH CHART (Starting Motors)



Ordering No.	Fitted to Models	No. off per set	Set comprises Brushes Part Nos.	Dimensions in inches				Brush Index No.
				A	B	C	D	
251108	M35G-1 and M325 .. ..	4	2 off 251163	.625	.559	.250	4.250	1
			2 off 251106	.625	.559	.250	1.750	4
255240	M418 .. .. .	4	2 off 255225	.500	.625	.312	3.250	3
			2 off 255226	.500	.625	.312	1.750	5
255659	M35, M45G and M418G ..	2	263018	.753	.559	.345	3.750	1
271050	M45G .. .. .	4	2 off 270927	.747	.812	.247	3.750	2
			2 off 270928	.747	.812	.247	2.062	4
271365	M45G .. .. .	4	1 off 256334	.753	.559	.345	6.000	1
			3 off 263018	.753	.559	.345	3.750	1
271735	M45G .. .. .	4	2 off 271491	.750	.875	.312	3.500	1
			2 off 271492	.750	.875	.312	1.875	4
272514	M45G .. .. .	4	1 off 272511	.750	.875	.312	5.750	1
			3 off 271491	.750	.875	.312	3.500	1

Items shown in "Set Comprises" column are for reference purposes only. Always quote Ordering No.

# BEARINGS AND BEARING BUSHES



## BEARING CHART

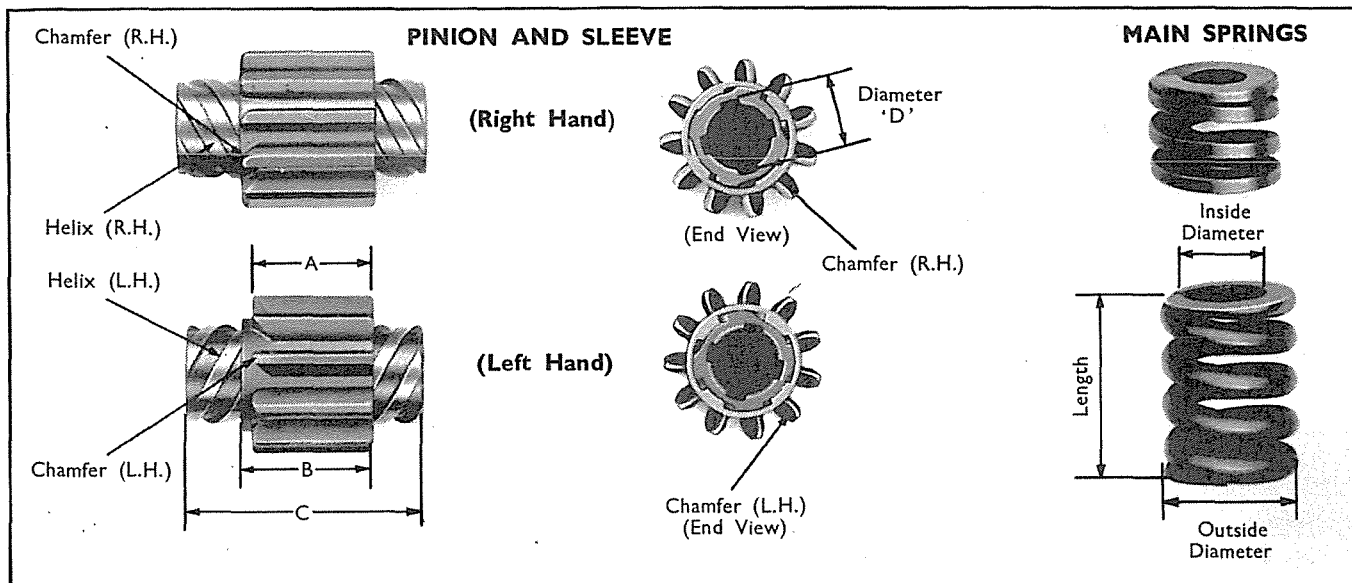
Part No.	Type	Description	Bore A	Outside Diameter B	Width C
189285	LS5	Single row; rigid ball journal; light type; English sizes	.500"	1.312"	.375"
189308	117	Single row; rigid ball journal; light type; metric sizes	17 mm.	40 mm.	12 mm.

## BEARING BUSH CHART

Part No.	Fitted to Models	Dimensions in inches		
		Bore A	Diameter B	Width C
250528	M35G and M35G-1 .. .. .	.747	.809	.406
250626	M35EL, M35G, M35G-1 and M45G, pre-engaged .. .. .	.504	.625	.770
250641	M35EL .. .. .	.752	.878	.812
250678	M35G and M35G-1 .. .. .	.750	.812	.812
251477	M35G-1 and M35H .. .. .	.503	.622	.500
253035	M325 .. .. .	.375	.503	.625
253111	M325 .. .. .	.475	.594	.500
253316	M35G-1 and M35H .. .. .	.750	.812	.656
255491	M45G and M418G .. .. .	.626	.752	.750
255853	M45G and M418G .. .. .	.877	1.003	.891
256112	M35G-1, M45G, M418A-3 and M418G .. .. .	.566	.502	.687
270017	M45G .. .. .	.877	1.003	1.109
270038	M45G and M418G .. .. .	.877	1.003	1.328
270330	M45G .. .. .	.628	.752	.593
270882	M45G .. .. .	.629	.754	1.156
270883	M35G, M35G-1, M45G and M148G .. .. .	.625	.690	.687
271364	M45G, pre-engaged .. .. .	.501	.627	.687
271733	M45G, pre-engaged .. .. .	1.001	1.125	.687
54250589	M45G, pre-engaged .. .. .	.475	.594	.750
54251857	M45G, pre-engaged .. .. .	1.003	1.128	.750
54252236	M45G, pre-engaged and self-index .. .. .	.552	.672	.776
54252494	M45G, pre-engaged and self-index .. .. .	1.003	1.129	.850

# DRIVES (Starting Motor)

## IDENTIFICATION OF PINIONS AND SLEEVES



When the make, year and horse power of a vehicle are known, Section A of this Catalogue will give you the Part Number of Starting Motor fitted. This information is also stamped on the machine itself. Spare parts for all machines will be found in the Detailed Spare Parts, commencing on page N12.

It sometimes becomes necessary to identify pinions and sleeves, main springs, and pinions and barrels that have been removed from machines, so that the above information is not available. In this case proceed as follows:

**PINIONS AND SLEEVES.** First count the number of teeth, and confirm whether the sleeve has a left or right hand thread (see illustration). Then identify from the dimensions given below or, for PINIONS ONLY, on page N6.

**MAIN SPRINGS.** Identify from the dimensions given on page N6.

**PINIONS AND BARRELS.** First count the number of teeth, and confirm whether left or right hand by the chamfer on the teeth (see illustration on page N5). Then identify from the dimensions given on page N5.

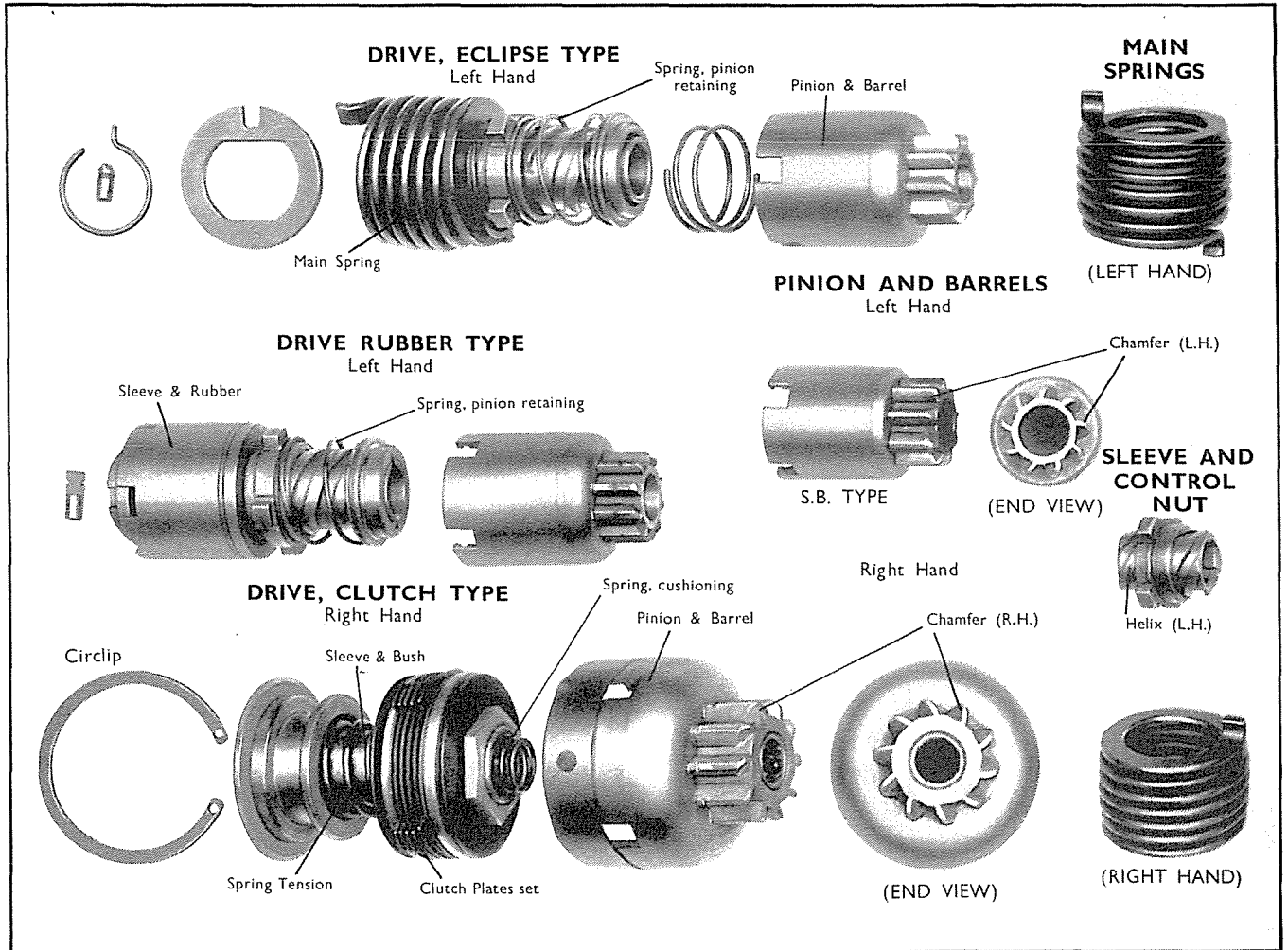
**SLEEVES AND CONTROL NUTS.** Identify from dimensions given on page N6.

Part No.	Number of Teeth	Tooth Length (inches) A	Overall Pinion Length (inches) B	Sleeve Length (inches) C	Chamfer or Helix	Shaft Diameter over Splines (inches) D
250116	10	1 <sup>15</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	L.H.	5
250196	9	1 <sup>3</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>32</sub>	L.H.	5
250307	10	1 <sup>15</sup> / <sub>32</sub>	1 <sup>9</sup> / <sub>64</sub>	2 <sup>39</sup> / <sub>32</sub>	R.H.	5
250415	9	1 <sup>11</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	L.H.	5
250607	10	1 <sup>5</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	L.H.	5
255093	11	1 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	L.H.	5
255165	10	1 <sup>9</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	L.H.	5
255182	11	1 <sup>5</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	R.H.	5
255194	11	1 <sup>5</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	L.H.	5
255262	10	1 <sup>11</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	L.H.	5
255263	10	1 <sup>9</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	R.H.	5
255489	10	1 <sup>1</sup> / <sub>2</sub>	1 <sup>13</sup> / <sub>16</sub>	1 <sup>19</sup> / <sub>32</sub>	R.H.	5
255649	10	1 <sup>5</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	L.H.	5
255672	11	1 <sup>3</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1 <sup>9</sup> / <sub>16</sub>	R.H.	5
263011	11	1 <sup>9</sup> / <sub>32</sub>	1 <sup>15</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	R.H.	5
270029	10	1 <sup>7</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	R.H.	5
270472	11	1 <sup>9</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	L.H.	5
290067	10	1 <sup>7</sup> / <sub>8</sub>	1	3 <sup>13</sup> / <sub>16</sub>	L.H.	5
291806	10	1 <sup>5</sup> / <sub>16</sub>	1 <sup>25</sup> / <sub>64</sub>	1 <sup>3</sup> / <sub>8</sub>	L.H.	5
291987	8	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>64</sub>	2 <sup>1</sup> / <sub>16</sub>	L.H.	5
292042	10	1 <sup>5</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>8</sub>	L.H.	5

# DRIVES (Starting Motor)

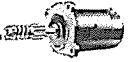


## IDENTIFICATION OF PINIONS, PINIONS AND BARRELS, MAIN SPRINGS AND SLEEVES AND CONTROL NUTS



## PINIONS AND BARRELS

Part No.	Drive	Type	Number of Teeth	Tooth Length (inches)	Chamfer or Thread	Barrel Length (inches)	Shaft Diameter (inches)
250698	—	SB	9	5/16	L.H.	1 21/32	5/8
250849	—	SB	9	5/16	R.H.	1 21/32	5/8
255941	—	SB	9	5/16	R.H.	1 21/32	5/8
291050	291089	Eclipse	9	5/16	L.H.	1 15/16	9/16
291069	291070	Rubber	9	5/16	R.H.	1 15/16	9/16
291101	{ 291105 291380	{ Rubber Eclipse	10	5/16	L.H.	1 15/16	5/8
291104	291551	Eclipse	10	5/16	R.H.	1 15/16	5/8
291346	—	SB	9	5/16	R.H.	1 15/16	5/8
291349	291353	Rubber	10	5/16	R.H.	1 5/8	1 1/2
291384	291358	Rubber	9	5/16	R.H.	1 5/8	1 1/2
291426	291457	Eclipse	9	5/16	R.H.	1 15/16	9/16
291506	291520	Clutch	11	5/16	R.H.	1 5/8	9/16
291559	291484	Clutch	11	5/16	L.H.	1 5/8	9/16
291562	{ 291485 291568	{ Eclipse Rubber	9	5/16	L.H.	1 5/8	1/2
291573	291574	Eclipse	9	5/16	L.H.	1 15/16	5/8
291693	291689	Clutch	10	5/16	R.H.	1 5/8	9/16



# DRIVES (Starting Motor)

## PINIONS

Part No.	Drive	Number of Teeth	Tooth Length (inches)	Overall Length (inches)	Chamfer or Helix	Shaft Diameter over Splines (inches)
291859	292130	11	$\frac{13}{16}$	$1 \frac{1}{16}$	R.H.	$\frac{13}{16}$
292031	292124	10	$\frac{13}{16}$	$\frac{15}{16}$	R.H.	$\frac{31}{32}$
292134	292130	11	$\frac{13}{16}$	$\frac{15}{16}$	R.H.	$\frac{31}{32}$
292147	292148	13	$\frac{13}{16}$	$\frac{15}{16}$	R.H.	$\frac{13}{16}$
54251225	54251224	9	$1 \frac{1}{4}$	$1 \frac{9}{16}$	R.H.	$\frac{1}{2}$
54251945	54253114	9	$1 \frac{5}{16}$	$1 \frac{11}{16}$	R.H.	$\frac{1}{2}$

## MAIN SPRINGS

Part No.	Length (inches)	Inside Diameter (inches)	Outside Diameter (inches)	Remarks	Part No.	Length (inches)	Inside Diameter (inches)	Outside Diameter (inches)	Remarks
250404	1	$\frac{31}{32}$	$1 \frac{11}{32}$	—	270889	$1 \frac{27}{32}$	$\frac{35}{32}$	$1 \frac{11}{32}$	—
250652	$1 \frac{27}{32}$	$\frac{31}{32}$	$1 \frac{1}{4}$	—	291043	$1 \frac{7}{16}$	$1 \frac{1}{4}$	$1 \frac{15}{16}$	Left hand
250947	$1 \frac{15}{32}$	$\frac{31}{32}$	$1 \frac{15}{64}$	—	291448	$1 \frac{7}{16}$	$1 \frac{1}{4}$	$1 \frac{15}{16}$	Right hand
270326	$1 \frac{15}{32}$	$\frac{25}{32}$	$1 \frac{11}{32}$	—	291835	$1 \frac{7}{8}$	$\frac{35}{32}$	$1 \frac{31}{32}$	—

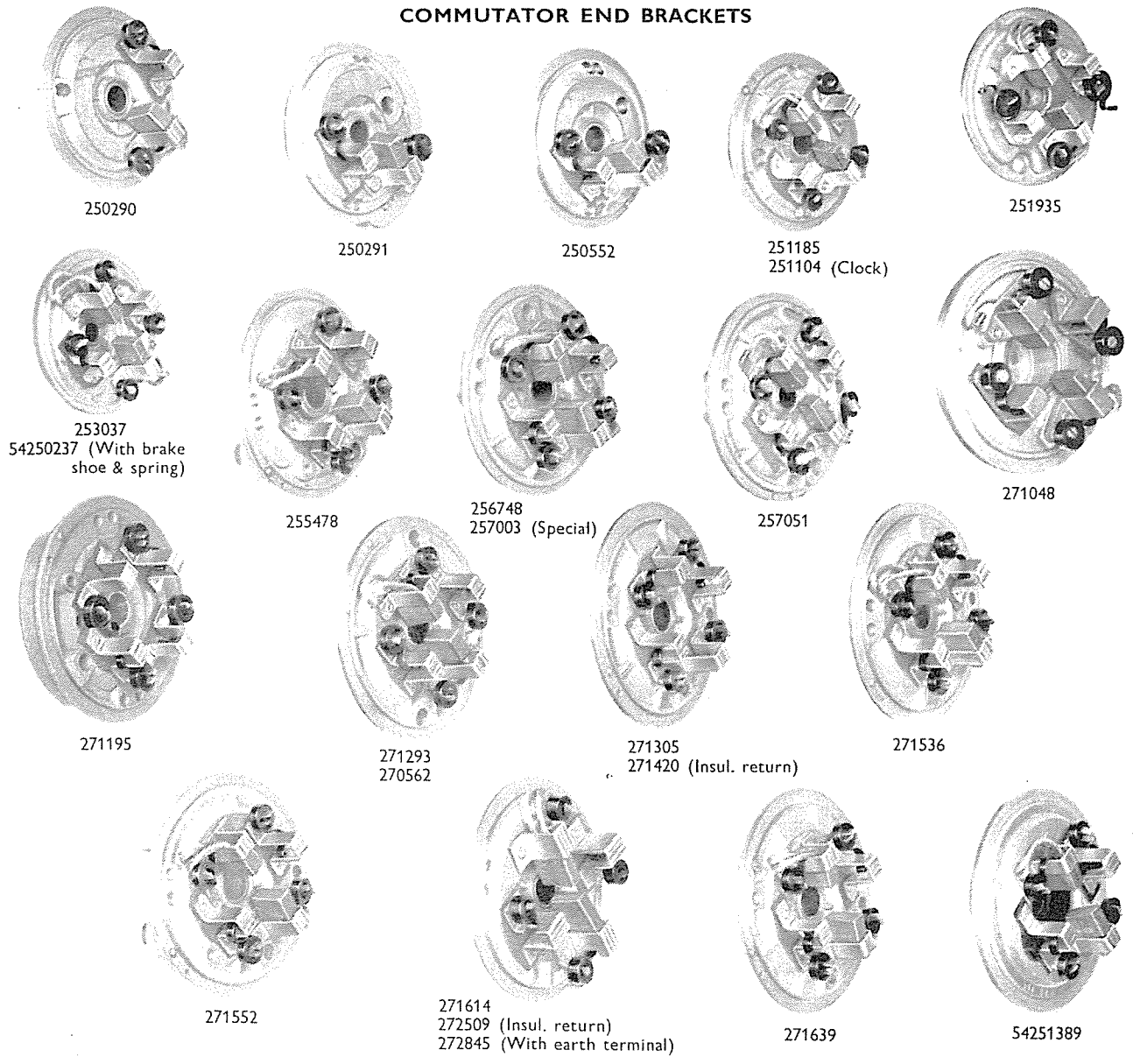
## SLEEVES AND CONTROL NUTS

Part No.	Direction of Helix	Length of Sleeve (inches)	Diameter of Shaft (inches)	Number of Starts	Depth of Nuts (inches)	Special Features	Type
250716	L.H.	$1 \frac{5}{32}$	$\frac{5}{8}$	4	$\frac{7}{16}$	—	To suit splined shaft, i.e. SB type.
250837	R.H.	$1 \frac{5}{32}$	$\frac{5}{8}$	4	$\frac{7}{16}$	—	To suit splined shaft, i.e. SB type.
255946	R.H.	$1 \frac{3}{16}$	$\frac{13}{16}$	3	$\frac{19}{32}$	—	To suit splined shaft, i.e. SB type.
256409	R.H.	$1 \frac{11}{32}$	$\frac{3}{4}$	4	$\frac{3}{4}$	—	To suit splined shaft, i.e. SB type.
291071	R.H.	$1 \frac{17}{32}$	$\frac{13}{16}$	3	$\frac{5}{8}$	—	To suit splined shaft, i.e. SB type.
291084	L.H.	$1 \frac{17}{32}$	$\frac{13}{16}$	3	$\frac{5}{8}$	—	To suit splined shaft, i.e. SB type.
291088	L.H.	$1 \frac{61}{64}$	$\frac{13}{16}$	3	$\frac{5}{8}$	—	Special sleeve to suit Eclipse drive.
291351	R.H.	$1 \frac{15}{32}$	$\frac{5}{8}$	4	$\frac{5}{8}$	With male dog	To suit plain shaft, i.e. Rubber type drive.
291458	R.H.	$1 \frac{61}{64}$	$\frac{13}{16}$	3	$\frac{5}{8}$	—	Special sleeve to suit Eclipse drive.

# STARTING MOTORS



## COMMUTATOR END BRACKETS



250290

250291

250552

251185  
251104 (Clock)

251935

253037  
54250237 (With brake shoe & spring)

255478

256748  
257003 (Special)

257051

271048

271195

271293  
270562

271305  
271420 (Insul. return)

271536

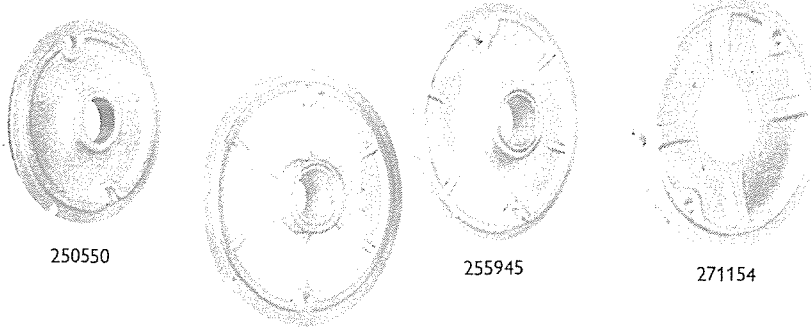
271552

271614  
272509 (Insul. return)  
272845 (With earth terminal)

271639

54251389

## INTERMEDIATE BRACKETS



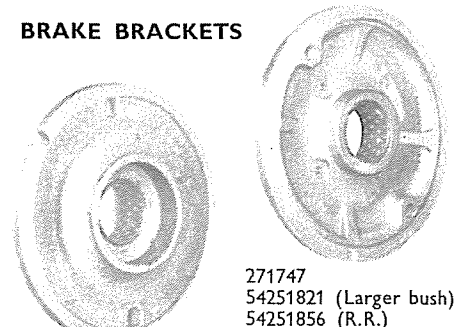
250550

255945

271154

270480 (M45G)  
255886 (M418G)

## BRAKE BRACKETS

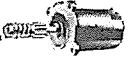


272700  
54252800

271747  
54251821 (Larger bush)  
54251856 (R.R.)

For detailed spare parts, see pages N12-N28

# STARTING MOTORS



## DRIVE END OR FIXING BRACKETS

250412  
251760

251006

251054  
251201

251196

251546

253030

255191  
255480

255621

255673

256133  
257067

256445

256462

256476

256495

256550

270207

270296

270258 (M45G)  
270370 (M45G)  
250292 (M35G)  
255073 (M418A)

270520

271047

271153

271197

271279  
270550

271294  
270321 (Centre not machined)  
271746 (Larger spigot & cut away)

271325

271458  
271221 (Wider location)

271774

271939 (M45G)  
250551 (M35G)  
251189 (M35G)  
256999 (M418G)

271943

271994 (U.N.F. thread)  
271928 (B.S.F. thread)

272027 - 272084  
271612 - 272197  
54252676  
54252690  
54252703  
54252708

272391 - 272553  
272745 - 272746  
272757 - 54250465  
54252536 - 54252546  
54252557 - 54252580

54250220

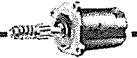
54250532

54253117

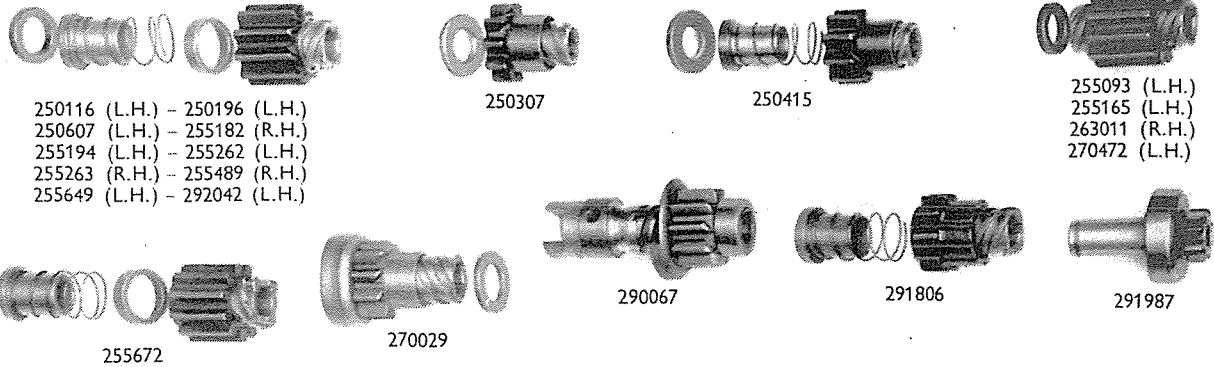
For detailed spare parts, see pages N12-N28



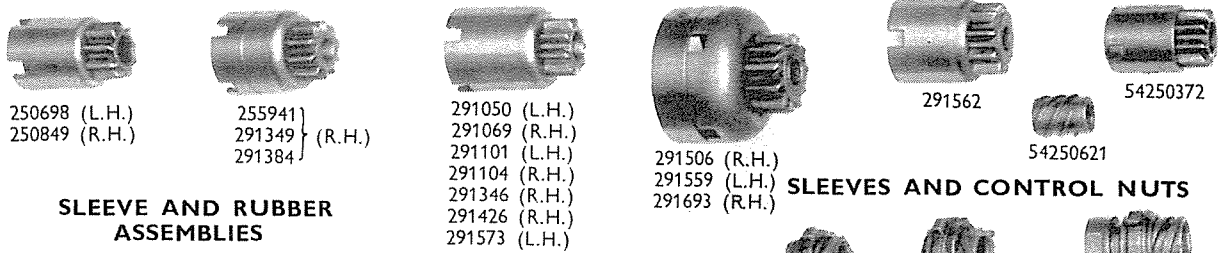
# STARTING MOTORS



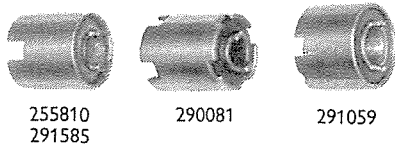
## PINION AND SLEEVES



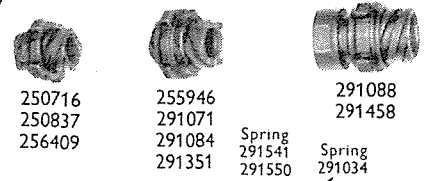
## PINION AND BARRELS



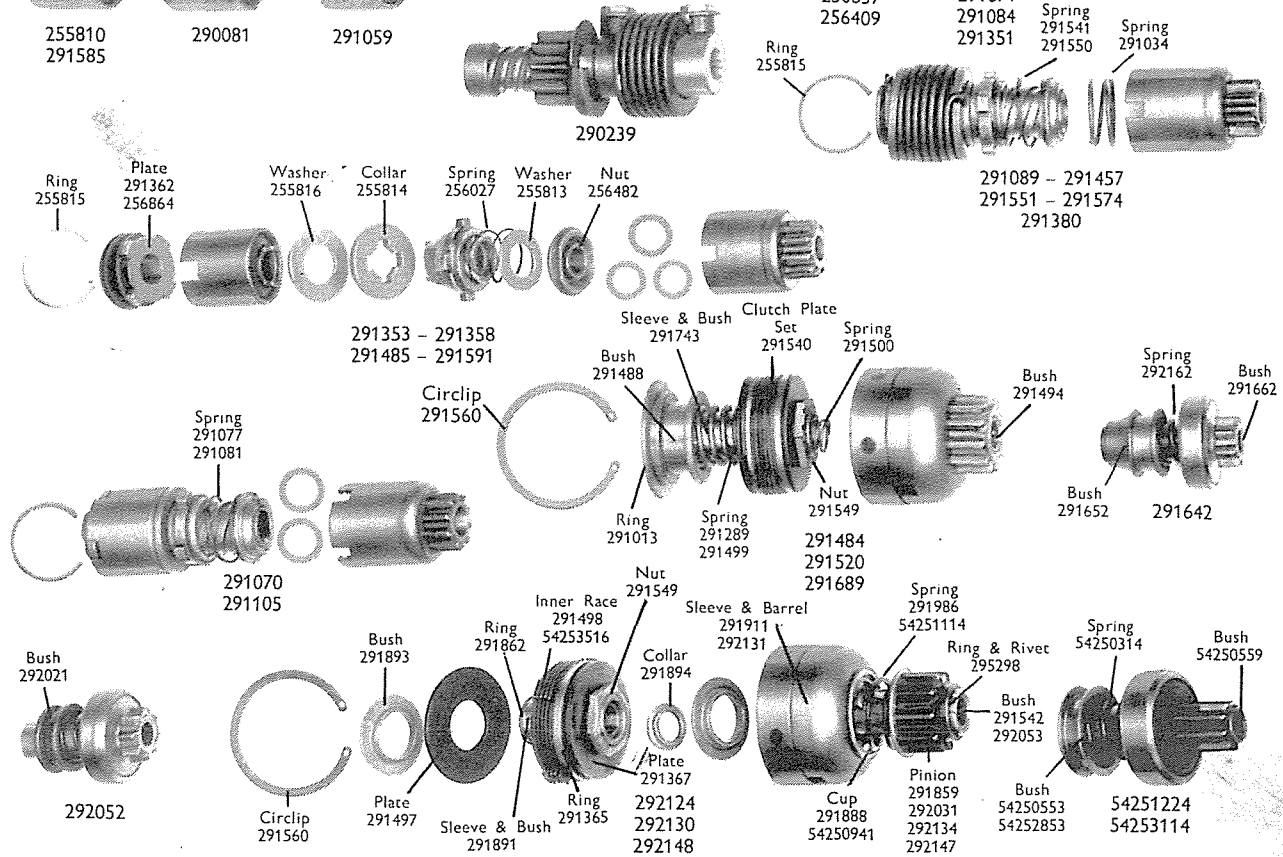
## SLEEVE AND RUBBER ASSEMBLIES



## SLEEVES AND CONTROL NUTS

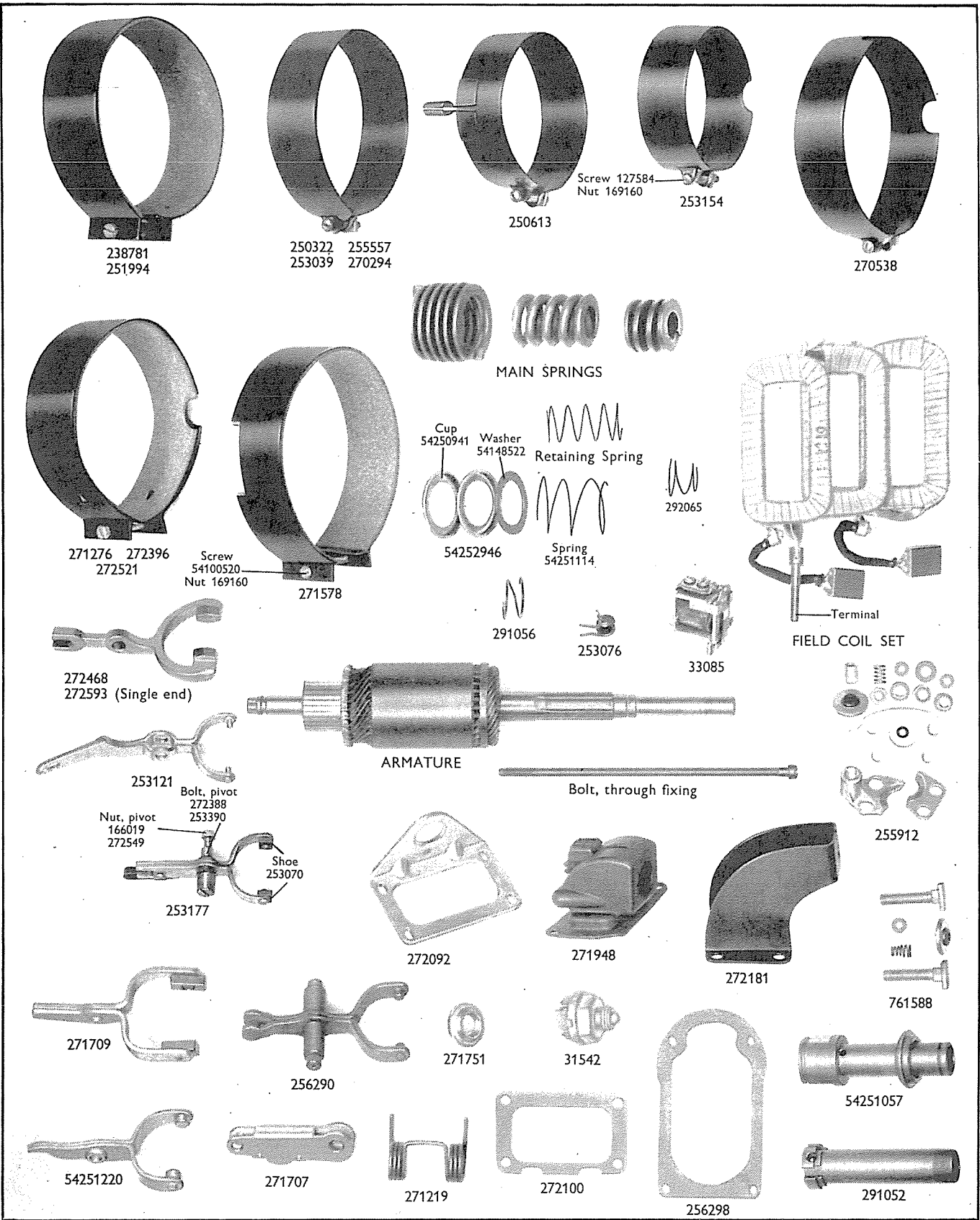
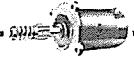


## DRIVE ASSEMBLIES



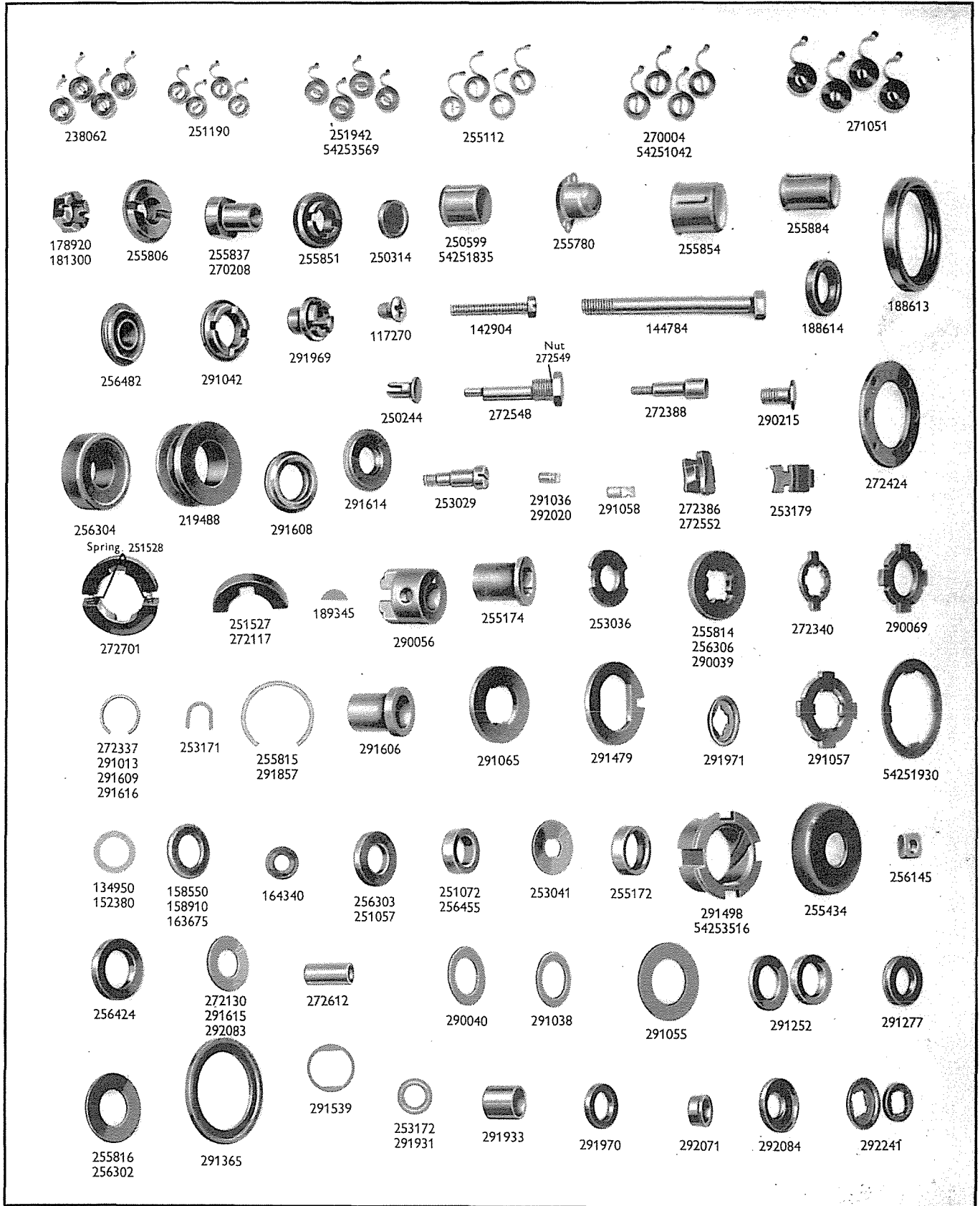
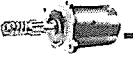
For detailed spare parts, see pages N12-N28

# STARTING MOTORS



For detailed spare parts, see pages N12-N28

# STARTING MOTORS



For detailed spare parts, see pages N12-N28

DETAILED SPARE PARTS

N12

25000 — 25017

STARTING MOTORS — M35, M45 AND M418 MODELS

Part No.	†25000A/D	†25001A/B	25006A/D	25007A/B	†25012A/D	25013A/B	25014A	25014B	25014D/F	†25015A/D	25016A	25017A
Model	M35G	M35G	M35G	M35G	M35G	M35G	M35G	M35G-1	M35G-1	M35G	M35G	M35G
Voltage	12	6	12	12	12	12	12	12	12	12	12	12
Rotation	Clock	Clock	Clock	Clock	Anti-clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote)	(25007)	(25031)	—	—	(25025 & 76464)	—	—	—	—	(25021)	—	—
§Cover band	250613	250322	250322	250322	250322	250322	250322	250322	250322	250322	250322	250322
Screw, cover band fixing	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584
Nut, cover band fixing screw	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Cap, shaft	255780	255780	255780	255780	255780	255780	250599	250599	250599	250599	255780	255780
§Brushes, set	255659	255659	255659	255659	255659	255659	255659	251108	251108	255659	255659	255659
§Bracket or frame, commutator end	250291	250291	250291	250291	250291	250291	250552	251104	251104	250552	250291	250291
§ Bush, bearing	250626	250626	250626	250626	250626	250626	250626	250626	250626	250626	250626	250626
§ Contact set	255912	255912	255912	255912	255912	255912	—	—	—	—	255912	255912
Nut, field terminal	173820	173820	173820	173820	173820	173820	—	—	—	—	173820	173820
Bush, insulating, fixing screw	164340	164340	164340	164340	164340	164340	—	—	—	—	164340	164340
§ Springs, set, brush tension	270004	270004	270004	270004	270004	270004	270004	†251109	†251109	270004	270004	270004
§ Springs, set, brush tension	—	—	—	—	—	—	—	251942	251942	—	—	—
§Drive	—	—	291070	—	—	—	—	291070	291070	—	—	—
Sleeve and drive head	—	—	291052	—	—	—	—	291052	291052	—	—	—
§ Pinion and sleeve or barrel	250196	250698	291069	250116	250849	250698	291069	291069	291069	291346	250607	250196
§ Spring, pinion retaining	250430	250691	291077	250430	250848	250691	291077	291077	291077	256027	250430	250430
Ring, barrel retaining	—	291857	255815	—	291857	291857	255815	255815	255815	255815	—	—
§ Sleeve and rubber	—	—	291059	—	—	—	291059	291059	291059	—	—	—
§ Spring, main	250652	250404	—	250652	250404	250404	—	—	—	270326	250652	250652
Washer, friction	—	—	291055	—	—	—	291055	291055	291055	—	—	—
Plate, transmission	—	—	291057	—	—	—	291057	291057	291057	—	—	—
§ Spring, cushioning	—	—	291056	—	—	—	291056	291056	291056	—	—	—
§ Sleeve, screwed, with control nut	—	250716	291071	—	250837	250716	291071	291071	291071	256409	—	—
Washer, thrust, control nut	—	—	291038	—	—	—	291038	291038	291038	255813	—	—
Ring, jump	—	—	—	—	—	—	—	—	—	—	—	—
Coupling, sleeve to screw shaft	—	—	291065	—	—	—	291065	291065	291065	—	—	—
Pin, pilot, drive to shaft	—	—	291058	—	—	—	291058	291058	291058	—	—	—
§ Nut, location	—	—	291042	—	—	—	291042	291042	291042	256482	—	—
Collar, location	—	—	—	—	—	—	—	—	—	—	—	—
Circlip, collar location	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining	—	—	—	—	—	—	—	—	—	—	—	—
Key, Woodruff	—	—	189345	—	—	—	189345	189345	189345	—	—	—
§Collar, bearing	—	—	—	—	—	—	—	—	—	—	—	—
§ Nut, shaft	291969	291969	291969	291969	291969	291969	291969	—	—	—	291969	291969
Sleeve, buffer	256455	—	—	256455	—	—	—	—	—	—	256455	256455
Washer, buffer	291277	291970	—	291277	291970	291970	—	—	—	158910	291277	291277
Washer assembly, spline and distance	—	291857	—	—	291857	291857	—	—	—	158910	—	—
§ Bracket or frame, drive end	250292	250412	251189	250292	250412	250412	251054	251054	251201	251006	250292	250292
§ Bush, bearing	250678	250678	270883	250678	250678	250678	270883	270883	256112	—	250678	250678
§ Bracket or frame, intermediate	—	—	250550	—	—	—	250550	250550	250550	—	—	—
§ Bush, bearing	—	—	250528	—	—	—	250528	250528	250528	‡251196	—	—
Collar, armature location	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil	—	—	—	—	—	—	—	—	—	—	—	—
§Armature	250248	54250004	250549	250248	54250096	54250096	250549	250549	251200	251060	250248	250248
§ Field coils, set	250868	250462	250868	250868	251046	250868	250974	251089	251089	250974	250868	250868
Terminal, field coils	255400	255400	255400	255400	255400	255400	54252850	54252850	54252850	54252850	255400	255400
§ Bolt, through fixing	228335	228335	228335	228335	228335	228335	228335	228336	228336	228335	228335	228335
§ Sundry parts, set	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§ Switch, starter	—	—	—	—	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets ‡ For use with split support post  
 § Recommended spares for stock || Bracket, testing ¶ Bearing, testing bracket

For illustrations, see pages N7-N11

continued

DETAILED SPARE PARTS

STARTING MOTORS — M35, M45 AND M418 MODELS

25021 — 25033

Part No.	25021A/H	25022A/L	25022M	25022N/Q	†25024A	25025A/D	25025E	25026A/E	25026F/H	25031A/D	25032A	25033A
Model	M35G-1	M35G-1	M35G-1	M35G-1	M35G	M35G-1	M35G-1	M35G-1	M35G-1	M35G-1	M35G	M35G
Voltage	12	12	12	12	12	12	12	12	12	6	6	12
Rotation	Clock	Clock	Clock	Clock	Clock	Anti-Clock	Anti-clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote)	—	—	—	—	(25022)	—	—	—	—	—	—	—
§Cover band .. .. .	250322	250322	250322	250322	250322	250322	250322	250322	250322	250322	250322	250322
Screw, cover band fixing .. .	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584
Nut, cover band fixing screw .. .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Cap, shaft .. .	250599	250599	250599	—	250599	250599	250599	250599	—	250599	255780	250599
§Brushes, set .. .	251108	251108	251108	251108	255659	251108	251108	251108	251108	251108	255659	255659
§Bracket or frame, commutator end .. .	251104	251104	251104	251935	250552	251185	251185	251104	251935	251104	250291	250552
§ Bush, bearing .. .	250626	250626	250626	251477	250626	250626	250626	250626	251477	250626	250626	250626
§ Contact set .. .	—	—	—	—	—	—	—	—	—	—	255912	—
Nut, field terminal .. .	—	—	—	—	—	—	—	—	—	—	173820	—
Bush, insulating, fixing screw .. .	—	—	—	—	—	—	—	—	—	—	164340	—
§ Springs, set, brush tension .. .	‡251109	‡251109	—	—	270004	‡251109	—	‡251109	—	‡251109	270004	270004
§ Springs, set, brush tension .. .	251942	251942	251942	251942	—	251942	251942	251942	251942	251942	—	—
§Drive .. .	—	—	—	—	—	—	—	—	—	—	—	291070
Sleeve and drive head .. .	—	—	—	—	—	—	—	291052	291052	—	—	291052
§ Pinion and sleeve or barrel .. .	291346	250698	250698	250698	250698	250849	250849	291069	291069	250698	250415	291069
§ Spring, pinion retaining .. .	256027	250691	250691	250691	250691	250848	250848	291077	291077	250691	250430	291077
Ring, barrel retaining .. .	255815	291857	291857	291857	—	291857	291857	255815	255815	291857	—	255815
Cup, spring retaining .. .	—	—	—	—	—	—	—	251444	251444	—	—	—
Sleeve and rubber .. .	—	—	—	—	—	—	—	291059	291059	—	—	291059
§ Spring, main .. .	270326	250404	250404	250404	250404	250404	250404	—	—	250404	250404	—
Washer, friction .. .	—	—	—	—	—	—	—	291055	291055	—	—	291055
Plate, transmission .. .	—	—	—	—	—	—	—	291057	291057	—	—	291057
Spring, cushioning .. .	—	—	—	—	—	—	—	291056	291056	—	—	291056
§ Sleeve, screwed, with control nut .. .	256409	250716	250716	250716	250716	250837	250837	291071	291071	250716	—	291071
Washer, thrust, control nut .. .	291615	—	—	—	—	—	—	291038	291038	—	—	291038
Ring, jump .. .	291616	—	—	—	—	—	—	—	—	—	—	—
Coupling, sleeve to screw shaft .. .	—	—	—	—	—	—	—	291065	291065	—	—	291065
Pin, pilot, drive to shaft .. .	—	—	—	—	—	—	—	291058	291058	—	—	291058
§ Nut, location .. .	—	—	—	—	—	—	—	291042	291042	—	—	291042
Collar, location .. .	291614	—	—	—	—	—	—	—	—	—	—	—
Circlip, collar location .. .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining .. .	—	—	—	—	—	—	—	—	—	—	—	—
Key, Woodruff .. .	—	—	—	—	—	—	—	189345	189345	—	—	189345
§Collar, bearing .. .	—	—	—	—	—	—	—	—	—	—	—	—
§Nut, shaft .. .	—	291969	291969	291969	291969	291969	291969	—	—	291969	291969	—
Sleeve, buffer .. .	—	—	—	—	—	—	—	—	—	—	—	—
Washer, buffer .. .	158910	291970	291970	291970	291970	291970	291970	—	—	291970	256303	—
Washer assembly, spline and distance .. .	—	292241	291971	291971	—	292241	291971	—	—	292241	—	—
§Bracket or frame, drive end .. .	251006	250412	250412	250412	250412	250412	250412	251189	251189	250412	250412	250551
§ Bush, bearing .. .	—	250678	250678	250678	250678	250678	250678	270883	270883	250678	250678	270883
§Bracket or frame, intermediate .. .	‡251196	—	—	—	—	—	—	250550	250550	—	—	250550
§ Bush, bearing .. .	‡256112	—	—	—	—	—	—	250528	250528	—	—	250528
Collar, armature location .. .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location .. .	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil .. .	—	—	—	—	—	—	—	—	—	—	—	—
§Armature .. .	251060	54250096	54250096	54250096	54250096	54250096	54250096	250549	250549	54250004	250414	250549
§Field coils, set .. .	251089	251089	251089	251089	250974	251178	251178	251089	251089	251271	250462	250974
Terminal, field coils .. .	54252850	54252850	54252850	54252850	54252850	54252850	54252850	54252850	54252850	54252850	255400	54252850
§Bolt, through fixing .. .	228335	228335	228335	228335	228335	228335	228335	228336	228336	228335	228335	228335
§Sundry parts, set .. .	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§Switch, starter .. .	—	—	—	—	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets ‡ For use with split support post § Recommended spares for stock  
 ¶ Bracket, testing ¶¶ Bearing, testing bracket

DETAILED SPARE PARTS

N14

25034 — 25063

STARTING MOTORS — M35, M45 AND M418 MODELS

Part No. . . . .	25034A/D M35G-1	25037A/B M35G-1	25037D M35G-1	25043A M35EL	25047A/B M35G	25050A/B M35G-1	25058A/D M35G	25058F M35G	25061A M35G-1	25061B M35G-1	25061E/F M35G-1	25063A M35G-1
Model . . . . .	12	6	6	6	12	12	12	12	12	12	12	12
Voltage . . . . .	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Rotation . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Earth or Insulated Return . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Replaced by (see footnote) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Cover band . . . . .	250322	250322	250322	250322	250322	250322	250322	250322	251994	251994	251994	250322
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584	127584	127584	127584	111059	111059	111059	127584
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	200553	200553	200553	169160
§Cap, shaft . . . . .	250599	250599	—	250314	250599	250599	250599	250599	250599	250599	54251835	250599
§Brushes, set . . . . .	251108	251108	251108	255659	251108	251108	251108	251108	251108	251108	251108	251108
§Bracket or frame, commutator end . . . . .	251104	251104	251935	250290	251104	251104	251104	251104	251104	251104	251935	—
§  Bush, bearing . . . . .	250626	250626	251477	250626	250626	250626	250626	250626	250626	250626	251477	—
Nut, field terminal . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Bush, insulating, fixing screw . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Springs, set, brush tension . . . . .	‡251109	‡251109	—	270004	‡251109	‡251109	‡251109	‡251109	‡251109	‡251109	—	251109
§  Springs, set, brush tension . . . . .	251942	251942	251942	—	251942	251942	251942	251942	251942	251942	251942	—
§Drive . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Sleeve and drive head . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Pinion and sleeve or barrel . . . . .	250196	250415	250415	250307	250116	250415	250698	250698	250698	250698	250698	—
§  Spring, pinion retaining . . . . .	250430	250430	250430	250391	250430	250430	250691	250691	250691	250691	250691	—
Ring, barrel retaining . . . . .	—	—	—	—	—	—	291857	291857	291857	291857	291857	—
Guide, spring retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Cup, spring retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Sleeve and rubber . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Spring, main . . . . .	250652	250404	250404	250947	250652	250404	250404	250404	250404	250404	250404	—
Washer, friction . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Plate, transmission . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Spring, cushioning . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Sleeve, screwed, with control nut . . . . .	—	—	—	—	—	—	250716	250716	250716	250716	250716	—
Washer, thrust, control nut . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, jump . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Coupling, sleeve to screw shaft . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Pin, pilot, drive to shaft . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Nut, location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Collar, location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Circlip, collar location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Key, Woodruff . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Collar, bearing . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Nut, shaft . . . . .	291969	291969	291969	181300	291969	291969	291969	291969	291969	291969	291969	291969
Sleeve, buffer . . . . .	256455	—	—	251072	256455	—	—	—	—	—	—	—
Washer, buffer . . . . .	291277	256303	256303	158910	291277	256303	291970	291970	291970	291970	291970	—
Washer assembly, spline and distance . . . . .	—	—	—	—	—	—	292241	291971	291971	291971	291971	—
§Bracket or frame, drive end . . . . .	250412	250412	250412	251546	250412	250412	251760	251760	250412	250412	250412	—
§  Bush, bearing . . . . .	250678	250678	250678	250641	250678	250678	250678	250678	250678	250678	250678	—
§Bracket or frame, intermediate . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Bush, bearing . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Collar, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil . . . . .	—	—	—	—	—	—	188614	188614	—	—	—	—
§Armature . . . . .	250248	250414	250414	250508	250248	251467	54250005	54250005	54250096	54250096	54250096	—
§Field coils, set . . . . .	251089	251271	251271	250470	251089	251089	251089	251089	251089	251089	251089	—
Terminal, field coils . . . . .	54252850	54252850	54252850	250244	54252850	54252850	54252850	54252850	54252850	54252850	54252850	—
§Bolt, through fixing . . . . .	228335	228335	228335	250377	228335	228335	228335	228335	228335	228335	228335	—
§Sundry parts, set . . . . .	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	—
§Switch, starter (for details see page N29) . . . . .	—	—	—	76439A	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number    ‡ For use with split support post    § Recommended spares for stock

For illustrations, see pages N7-N11

continued

DETAILED SPARE PARTS

STARTING MOTORS — M35, M45 AND M418 MODELS

Part No.	25063B/D M35G-1	25063E/F M35G-1	25065A M35G-1	25065B M35G-1	25065D/E M35G-1	25071A/D M35H	25075A M35G-1	25502A M418G	‡25506A M418G	†25511D/E M418G	25512A M418G	25513A/D M418G
Model	M35G-1	M35G-1	M35G-1	M35G-1	M35G-1	M35H	M35G-1	M418G	M418G	M418G	M418G	M418G
Voltage	12	12	12	12	12	12	12	12	12	12	12	12
Rotation	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Anti-clock	Clock	Clock	Anti-clock	Clock
Earth or Insulated Return	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote)	—	—	—	—	—	—	—	—	—	(25526 & 76464)	—	—
§Cover band	250322	250322	250322	250322	250322	250322	250322	255557	255557	255557	255557	255557
Screw, cover band fixing	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584
Nut, cover band fixing screw	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Cap, shaft	250599	—	250599	250599	—	—	—	255780	255780	255780	255780	—
§Brushes, set	251108	251108	251108	251108	251108	251108	251108	255659	255659	255659	255659	255659
§Bracket or frame, commutator end	—	—	251104	251104	251935	251935	251935	255478	255478	255478	255478	255478
§ Bush, bearing	—	—	250626	250626	251477	251477	251477	255491	255491	255491	255491	255491
§ Contact set	—	—	—	—	—	—	—	255912	255912	255912	255912	255912
Nut, field terminal	—	—	—	—	—	—	—	173820	173820	173820	173820	173820
Bush, insulating, fixing screw	—	—	—	—	—	—	—	164340	164340	164340	164340	164340
§ Springs, set, brush tension	—	—	—	—	—	—	—	270004	270004	270004	270004	270004
§ Springs, set, brush tension	251942	251942	251942	251942	251942	251942	251942	—	—	—	—	—
§Drive	—	—	—	—	—	—	—	—	—	291353	—	291070
Sleeve, screw-in	—	—	—	—	—	54250621	—	—	—	—	—	291052
§ Pinion and sleeve or barrel	—	—	250698	250698	250698	54250372	250698	255649	255194	291349	255263	291069
§ Spring, pinion retaining	—	—	250691	250691	250691	291932	250691	255728	255728	256027	255727	291077
Ring, barrel retaining	—	—	291857	291857	291857	—	291857	—	—	255815	—	255815
Spring, run-off	—	—	—	—	—	292065	—	—	—	—	—	—
Cup, spring support	—	—	—	—	—	292084	—	—	—	—	—	—
§ Sleeve and rubber	—	—	—	—	—	—	—	—	—	291585	—	291059
§ Spring, main	—	—	250404	250404	250404	250404	250404	270889	270889	—	270889	—
Washer, friction	—	—	—	—	—	—	—	—	—	255816	—	291055
Plate, retaining or transmission	—	—	—	—	—	292059	—	—	—	291362	—	—
Cup, return spring	—	—	—	—	—	291931	—	—	—	—	—	291056
§ Sleeve, screwed, with control nut	—	—	250716	250716	250716	—	250716	—	—	291351	—	291071
Washer, thrust, control nut	—	—	—	—	—	—	—	—	—	255813	—	291038
Sleeve, run-off spring	—	—	—	—	—	292071	—	—	—	—	—	—
Coupling, sleeve to screw shaft	—	—	—	—	—	—	—	—	—	255814	—	291065
Pin, pilot, drive to shaft	—	—	—	—	—	—	—	—	—	—	—	291058
Nut, location	—	—	—	—	—	—	—	—	—	256482	—	291042
Collar, distance	—	—	—	—	—	291933	—	—	—	—	—	—
Key, Woodruff	—	—	—	—	—	—	—	—	—	189345	—	189345
§Collar, bearing	—	—	—	—	—	—	—	255837	—	—	—	—
§Nut, shaft	291969	291969	291969	291969	291969	291969	291969	—	255851	—	255851	—
Sleeve, buffer	—	—	—	—	—	—	—	—	—	—	—	—
Washer, buffer	—	—	291970	291970	291970	292083	291970	291252	291252	158910	291252	—
Washer assembly, spline and distance	—	—	292241	291971	291971	—	291971	—	—	—	—	—
§Bracket or frame, drive end	—	—	250412	250412	250412	54250532	54250532	256133	255073	256550	255073	256445
§ Bush, bearing	—	—	250678	250678	250678	253316	253316	270883	270038	256112	270038	270883
§Bracket or frame, intermediate	—	—	—	—	—	—	—	—	—	—	—	255945
§ Bush, bearing	—	—	—	—	—	—	—	—	—	—	—	255853
Collar, armature location	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location	—	—	—	—	—	—	—	—	—	—	—	—
Washer, thrust, drive end	—	—	—	—	—	—	158550	—	—	—	—	—
§Armature	—	—	54250096	54250096	54250096	54250822	54250096	256132	255463	256892	255463	256594
§Field coils, set	—	—	251089	251089	251089	54250820	251089	255626	256578	256578	256652	256578
Terminal, field coils	—	—	54252850	54252850	54252850	251730	54252850	255400	255400	255400	255400	255400
§Bolt, through fixing	—	—	228335	228335	228335	228335	228335	256009	256009	255459	256009	270131
§Sundry parts, set	—	—	256762	256762	256762	54251038	256762	256762	256762	256762	256762	256762
§Switch, starter	—	—	—	—	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets ‡ Return for repair § Recommended spares for stock

For illustrations, see pages N7-N11

continued

DETAILED SPARE PARTS

N16

25514 - 25526

STARTING MOTORS - M35, M45 AND M418 MODELS

Part No. . . . .	25514A M418G	25514B/E M418G	25515A M418G	25515B/D M418G	25516A/E M418G	25518A/E M418G	25521A M418G	25521B/D M418G	†25522A/B M418G	†25523A/D M418G	†25524A M418G	25526A/J M418G
Model . . . . .	12	12	6	6	12	12	12	12	12	12	12	12
Voltage . . . . .	Clock	Clock	Clock	Clock	Anti-clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Rotation . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Earth or Insulated Return . . . . .	—	—	—	—	—	—	—	—	(25521)	(25521)	(25533)	—
Replaced by (see footnote) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Cover band . . . . .	255557	255557	255557	255557	255557	255557	255557	255557	255557	255557	255557	255557
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Cap, shaft . . . . .	255780	255854	255854	255854	255854	—	—	255854	255854	255854	—	255854
§Brushes, set . . . . .	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659
§Bracket or frame, commutator end . . . . .	255478	256748	256748	256748	256748	256748	255478	256748	256748	256748	255478	256748
§  Bush, bearing . . . . .	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491
§  Contact set . . . . .	255912	—	—	—	—	—	—	255912	—	—	255912	—
Nut, field terminal . . . . .	173820	—	—	—	—	—	—	173820	—	—	173820	—
Bush, insulating, fixing screw . . . . .	164340	—	—	—	—	—	—	164340	—	—	164340	—
§  Springs, set, brush tension . . . . .	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004
§Drive . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Sleeve and drive head . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Pinion and sleeve or barrel . . . . .	255672	255672	255941	255941	255093	291349	255649	255649	255649	255649	255194	291349
§  Spring, pinion retaining . . . . .	255727	255727	256027	256027	—	256027	255728	255728	255728	255728	255728	256027
Ring, barrel retaining . . . . .	—	—	255815	255815	—	—	255815	—	—	—	—	255815
Guide, spring retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Cup, spring retaining . . . . .	—	—	—	—	—	—	291606	291606	—	—	—	—
Sleeve and rubber . . . . .	290081	290081	255810	255810	—	—	255172	255172	—	—	—	—
§  Spring, main . . . . .	—	—	—	—	270889	—	—	—	—	—	—	—
§  Washer, friction . . . . .	290040	290040	255816	255816	—	—	—	—	—	—	—	—
§  Plate, transmission . . . . .	291362	291362	291362	291362	—	—	—	—	—	—	—	—
§  Spring, cushioning . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Sleeve, screwed, with control nut . . . . .	—	—	255946	255946	—	—	—	—	—	—	—	—
Washer, thrust, control nut . . . . .	—	—	255813	255813	—	—	—	—	—	—	—	—
Ring, jump . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Coupling, sleeve to screw shaft . . . . .	290039	290039	255814	255814	—	—	—	—	—	—	—	—
Pin, pilot, drive to shaft . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Nut, location . . . . .	—	—	255806	256482	—	—	—	—	—	—	—	—
Collar, location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Circlip, collar location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Key, Woodruff . . . . .	189345	189345	189345	189345	—	—	—	—	—	—	—	—
§Collar, bearing . . . . .	255837	255837	—	—	255837	—	—	—	—	—	—	—
§Nut, shaft . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Sleeve, buffer . . . . .	—	—	—	—	—	256304	—	—	—	—	—	—
Washer, buffer . . . . .	—	—	—	—	—	291252	—	—	—	—	—	—
Washer assembly, spline and distance . . . . .	—	—	—	—	—	256306	—	—	—	—	—	—
§Bracket or frame, drive end . . . . .	255673	255673	256462	256462	255621	256476	256495	256495	255073	255073	255073	256550
§  Bush, bearing . . . . .	270883	270883	256112	256112	270883	—	270038	270038	270038	270038	270038	256112
§Bracket or frame, intermediate . . . . .	255945	255945	—	—	255886	—	—	—	—	—	—	—
§  Bush, bearing . . . . .	255853	255853	—	—	255853	—	—	—	—	—	—	—
Collar, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Armature . . . . .	255863	255863	256490	256490	255620	256575	255463	255463	255463	255463	255463	256889
§Field coils, set . . . . .	256578	256578	255858	255858	256051	256578	256578	256578	256578	256578	256578	256578
Terminal, field coils . . . . .	255400	256745	255835	255835	—	256745	255400	256745	256745	256745	255400	256745
§Bolt, through fixing . . . . .	270131	270131	255459	270131	255459	256009	256009	256009	256009	256009	256009	270131
§Sundry parts, set . . . . .	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§Switch, starter . . . . .	—	—	—	—	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets ‡ Bracket, testing § Recommended spares for stock  
|| Bearing, testing bracket

For illustrations, see pages N7-N11

continued



DETAILED SPARE PARTS

Part No. . . . .	25526K	25526L	25529A/E	25531A/D	†25532A/B	25533A/D	25535A	25536A	25541A/D	25541E	25541F/H	25549A/D
Model . . . . .	M418G	M418G	M418G	M418G	M418G	M418G	M418G	M418G	M418G	M418G	M418G	M418G
Voltage . . . . .	12	12	12	12	12	12	12	6	12	12	12	12
Rotation . . . . .	Clock	Clock	Clock	Anti-clock	Clock	Clock	Clock	Anti-clock	Clock	Clock	Clock	Anti-clock
Earth or Insulated Return . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote) . . . . .	—	—	—	—	(25514)	—	—	—	—	—	—	—
§Cover band . . . . .	255557	255557	255557	255557	255557	255557	255557	255557	255557	255557	255557	255557
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Cap, shaft . . . . .	255854	255854	255854	255854	255854	255854	—	255854	255854	255854	255854	255854
§Brushes, set . . . . .	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659
§Bracket or frame, commutator end . . . . .	256748	256748	256748	256748	256748	256748	255478	256748	256748	256748	256748	257003
§ Bush, bearing . . . . .	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491
§ Contact set . . . . .	—	—	—	—	—	—	255912	—	—	—	—	—
Nut, field terminal . . . . .	—	—	—	—	—	—	173820	—	—	—	—	—
Bush, insulating, fixing screw . . . . .	—	—	—	—	—	—	164340	—	—	—	—	—
§ Springs, set, brush tension . . . . .	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004
§ Springs, set, brush tension . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Drive . . . . .	291672	291672	291380	—	—	—	—	—	291568	291591	291485	291089
Sleeve and drive head . . . . .	—	—	54251057	—	—	—	—	—	—	—	—	54251057
§ Pinion and sleeve or barrel . . . . .	291349	291349	291101	255649	255182	255194	255649	255165	291562	291562	291562	291050
§ Spring, pinion retaining . . . . .	256027	256027	291541	255728	255727	255728	255728	—	256027	256027	256027	291541
Ring, barrel retaining . . . . .	255815	255815	255815	—	—	—	—	—	255815	255815	255815	255815
Cup, spring retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§ Sleeve and rubber . . . . .	291585	291585	—	—	—	—	—	—	291585	291585	291585	—
§ Spring, main . . . . .	—	—	291043	270889	270889	270889	270889	250652	—	—	—	291043
Washer, friction . . . . .	255816	255816	—	—	—	—	—	—	255816	255816	255816	—
Plate, transmission . . . . .	256864	256864	—	—	—	—	—	—	291362	256864	256864	—
§ Spring, cushioning . . . . .	—	—	291034	—	—	—	—	—	—	—	291361	291034
§ Sleeve, screwed, with control nut . . . . .	291351	291351	291088	—	—	—	—	—	291351	291351	291351	291088
Washer, thrust, control nut . . . . .	255813	255813	291038	—	—	—	—	—	255813	255813	291615	291038
Ring, jump . . . . .	—	291616	—	—	—	—	—	—	—	—	291616	†291037
Coupling, sleeve to screw shaft . . . . .	255814	255814	—	—	—	—	—	—	255814	255814	255814	—
Pin, pilot, drive to shaft . . . . .	—	—	291036	—	—	—	—	—	—	—	—	292020
Nut, location . . . . .	256482	—	291042	—	—	—	—	—	256482	256482	—	291042
Collar, location . . . . .	—	291614	291608	—	—	—	—	—	—	—	291614	291608
Circlip, collar location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining . . . . .	—	—	291609	—	—	—	—	—	—	—	—	291786
Key, Woodruff . . . . .	—	—	189345	—	—	—	—	—	189345	189345	—	—
§Collar, bearing . . . . .	—	—	—	255837	255837	—	—	255837	—	—	—	—
§Nut, shaft . . . . .	—	—	—	—	—	255851	255851	—	—	—	—	—
Sleeve, buffer . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Washer, buffer . . . . .	—	—	—	291252	291252	291252	291252	256303	—	—	—	—
Washer assembly, spline and distance . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Bracket or frame, drive end . . . . .	256550	256550	256495	256133	255673	256495	255073	255191	256550	256550	256550	256999
§ Bush, bearing . . . . .	256112	256112	270038	270883	270883	270038	270038	270883	256112	256112	256112	54251754
§ Bracket or frame, intermediate . . . . .	—	—	—	—	255886	—	—	255886	—	—	—	255945
§ Bush, bearing . . . . .	—	—	—	—	255853	—	—	255853	—	—	—	255853
Collar, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Armature . . . . .	256889	256935	256650	256132	255620	255463	255463	255867	256889	256889	256935	256594
§Field coils, set . . . . .	256578	256578	256578	256652	256578	256578	256578	255473	256578	256578	256578	256652
Terminal, field coils . . . . .	256745	256745	256745	256745	256745	256745	255400	255835	256745	256745	256745	256745
§Bolt, through fixing . . . . .	270131	270131	255459	256009	270131	255459	256009	270131	270131	270131	270131	270131
§Sundry parts, set . . . . .	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§Switch, starter . . . . .	—	—	—	—	—	—	—	—	—	—	—	—

STARTING MOTORS — M35, M45 AND M418 MODELS

25526 — 25549

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets ‡ Washer, head, thrust § Recommended spares for stock

N17

DETAILED SPARE PARTS

N18

25550 — 26033

STARTING MOTORS — M35, M45 AND M418 MODELS

Part No. . . . .	25550A	25551A	25553A/B	25557A	26008A/B	26009A/D	26023A/E	26025A/H	26026A/B	26032A	26032B	26033A/B
Model . . . . .	M418G	M418G	M418G	M418G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G
Voltage . . . . .	12	12	12	12	12	6	12	12	12	12	12	12
Rotation . . . . .	Clock	Clock	Anti-clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote) . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Cover band . . . . .	255557	255557	255557	255557	270294	270538	271276	270294	270294	271578	270294	271276
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	111050
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	200553
§Cap, shaft . . . . .	255854	255780	255854	255854	255780	—	—	255780	255780	255854	255854	—
§Brushes, set . . . . .	255659	255659	255659	255659	255659	255659	271050	255659	255659	255659	255659	271050
§Bracket or frame, commutator end . . . . .	256748	255478	256748	256748	271552	271293	271048	271552	271552	271305	271305	271048
§  Bush, bearing . . . . .	255491	255491	255491	255491	255491	270330	189295	255491	255491	255491	255491	189295
§  Contact set . . . . .	—	255912	—	—	255912	—	—	255912	255912	—	—	—
Nut, field terminal . . . . .	—	173820	—	—	173820	—	—	173820	173820	—	—	—
Bush, insulating, fixing screw . . . . .	—	164340	—	—	164340	—	—	164340	164340	—	—	—
§  Springs, set, brush tension . . . . .	270004	270004	270004	270004	270004	270004	271051	270004	270004	270004	270004	271051
§Drive . . . . .	—	—	—	—	—	—	—	291358	291105	—	—	—
Sleeve and drive head . . . . .	—	—	—	—	—	—	—	291052	—	—	—	—
Pinion and sleeve or barrel . . . . .	291806	255489	255649	292042	255194	270029	—	291384	291101	255649	255649	—
Spring, pinion retaining . . . . .	255728	250429	255728	255728	255729	270078	—	256027	291081	255728	255728	—
Ring, barrel retaining . . . . .	—	—	—	—	—	—	—	255815	255815	—	—	—
Cup, spring retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Sleeve and rubber . . . . .	—	—	—	—	—	—	—	291585	291059	—	—	—
§  Spring, main . . . . .	270889	250652	270889	291835	270889	270326	—	—	—	270889	270889	—
Washer, friction . . . . .	—	—	—	—	—	—	—	255816	291055	—	—	—
Plate, transmission . . . . .	—	—	—	—	—	—	—	291362	291057	—	—	—
§  Spring, cushioning . . . . .	—	—	—	—	—	—	—	—	291056	—	—	—
§  Sleeve, screwed, with control nut . . . . .	—	—	—	—	—	—	—	291351	291084	—	—	—
Washer, thrust, control nut . . . . .	—	—	—	—	—	—	—	255813	291038	—	—	—
Ring, jump . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Coupling, sleeve to screw shaft . . . . .	—	—	—	—	—	—	—	255814	291065	—	—	—
Pin, pilot, drive to shaft . . . . .	—	—	—	—	—	—	—	—	291058	—	—	—
Nut, location . . . . .	—	—	—	—	—	—	—	256482	291042	—	—	—
Collar, location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Circlip, collar location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Key, Woodruff . . . . .	—	—	—	—	—	—	—	189345	189345	—	—	—
§Collar, bearing . . . . .	—	255837	255837	—	—	—	—	—	—	—	—	—
§Nut, shaft . . . . .	255851	—	—	255851	255851	181300	—	—	—	255851	255851	178920
Sleeve, buffer . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Washer, buffer . . . . .	291252	291277	291252	—	291252	158910	—	—	—	291252	291252	—
Washer assembly, spline and distance . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Bracket or frame, drive end . . . . .	256495	255480	257067	256495	271221	271294	271047	271325	270258	270370	270370	271047
§  Bush, bearing . . . . .	270038	270883	270038	270038	270038	270017	189308	256112	270038	270038	270038	189308
§Bracket or frame, intermediate . . . . .	—	255886	—	—	—	—	—	—	—	—	—	—
§  Bush, bearing . . . . .	—	255853	—	—	—	—	—	—	—	—	—	—
Collar, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Armature . . . . .	255463	255840	256132	255463	270482	270335	270931	271402	270532	270482	270482	270931
§Field coils, set . . . . .	256578	256578	256652	256578	270214	270340	271950	270214	270214	271306	271306	271950
Terminal, field coils . . . . .	256745	255400	256745	256745	255400	250244	271053	255400	255400	255835	255835	271053
§Bolt, through fixing . . . . .	255459	255459	256009	255459	255459	270329	255459	255459	255459	255459	255459	255459
§Sundry parts, set . . . . .	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§Switch, starter . . . . .	—	—	—	—	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number § Recommended spares for stock

For illustrations, see pages N7-N11

continued

DETAILED SPARE PARTS

STARTING MOTORS — M35, M45 AND M418 MODELS

Part No. . . . .	†26035A	26038A	26040A	26041B	26042E	26043A	26045A	26050A	26054A	26055A	†26057A	26060A
Model . . . . .	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G
Voltage . . . . .	12	12	12	12	12	12	12	12	12	6	12	12
Rotation . . . . .	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote) . . . . .	(26041 & 76464)	—	—	—	—	—	—	—	—	—	(26038 & 76464)	—
§Cover band . . . . .	270294	270294	270294	270294	270294	270294	270294	270294	270294	270294	270294	270538
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Cap, shaft . . . . .	255854	255854	255854	255854	255854	255854	255854	255854	255780	255780	255780	—
§Brushes, set . . . . .	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659
§Bracket or frame, commutator end . . . . .	271552	271305	271305	271305	271305	271305	271305	271305	271552	271552	271552	270562
§ Bush, bearing . . . . .	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	270330
§ Contact set . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Nut, field terminal . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Bush, insulating, fixing screw . . . . .	—	—	—	—	—	—	—	—	173820	173820	173820	—
§ Springs, set, brush tension . . . . .	270004	270004	270004	270004	270004	270004	270004	270004	164340	164340	164340	270004
§Drive . . . . .	291380	—	—	291380	291105	—	291105	291457	270004	270004	270004	270004
Sleeve and drive head . . . . .	54251057	—	—	54251057	291052	—	291052	54251057	—	—	—	54251057
§ Pinion and sleeve or barrel . . . . .	291101	255194	263011	291101	291101	255649	291101	291426	255263	255263	255194	291050
§ Spring, pinion retaining . . . . .	291541	255728	—	291541	291081	255728	291081	291550	255727	255727	255728	291541
Ring, barrel retaining . . . . .	255815	—	—	255815	255815	—	255815	255815	—	—	—	255815
Guide, spring retaining . . . . .	—	—	—	—	—	291606	—	—	—	—	—	—
Cup, spring retaining . . . . .	—	—	—	—	—	255172	—	—	—	—	—	—
§ Sleeve and rubber . . . . .	—	—	—	—	291059	—	291059	—	—	—	—	—
§ Spring, main . . . . .	291043	270889	270889	291043	—	270889	—	291448	270889	270889	270889	291043
Washer, friction . . . . .	—	—	—	—	291055	—	291055	—	—	—	—	163675
Plate, transmission . . . . .	—	—	—	—	291057	—	291057	—	—	—	—	291479
§ Spring, cushioning . . . . .	291034	—	—	291034	291056	—	291056	291034	—	—	—	291034
§ Sleeve, screwed, with control nut . . . . .	291088	—	—	291088	291084	—	291084	291458	—	—	—	291088
Washer, thrust, control nut . . . . .	291038	—	—	291038	291038	—	291038	291038	—	—	—	291038
Ring, jump . . . . .	‡291037	—	—	‡291037	—	—	—	—	—	—	—	—
Coupling, sleeve to screw shaft . . . . .	—	—	—	—	291065	—	291065	—	—	—	—	—
Pin, pilot, drive to shaft . . . . .	291036	—	—	291036	291058	—	291058	291036	—	—	—	291036
Nut, location . . . . .	—	—	—	—	291042	—	291042	291042	—	—	—	291042
Collar, location . . . . .	291608	—	—	291608	—	—	—	—	—	—	—	—
Circlip, collar location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining . . . . .	291786	—	—	291786	—	—	—	—	—	—	—	—
Key, Woodruff . . . . .	189345	—	—	189345	189345	—	189345	189345	—	—	—	189345
§Collar, bearing . . . . .	—	—	255837	—	—	—	—	—	255837	255837	—	—
§Nut, shaft . . . . .	—	255851	—	291042	—	255851	—	—	—	—	255851	—
Sleeve, buffer . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Washer, buffer . . . . .	—	291252	291252	—	—	291252	—	—	256302	291252	291252	—
Washer assembly, spline and distance . . . . .	—	—	—	—	—	—	—	—	256424	—	—	—
§Bracket or frame, drive end . . . . .	270258	270258	271279	270258	271458	270258	271221	271943	270207	270207	270258	270520
§ Bush, bearing . . . . .	270038	270038	270883	270038	270038	270038	270038	256112	270883	270883	270038	270882
§Bracket or frame, intermediate . . . . .	—	—	270480	—	—	—	—	—	270480	270480	—	—
§ Bush, bearing . . . . .	—	—	255853	—	—	—	—	—	255853	255853	—	—
Ring, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil . . . . .	—	—	188613	—	—	—	—	—	—	—	—	—
§Armature . . . . .	270532	270482	270406	270532	270532	270482	270532	271528	270406	270387	270482	270470
§Field coils, set . . . . .	270214	271306	271306	271306	271306	271306	271306	271306	270214	270362	270214	270643
Terminal, field coils . . . . .	255400	255835	255835	255835	255400	255835	255835	255400	255400	255457	255400	270356
§Bolt, through fixing . . . . .	255459	255459	270131	255459	255459	255459	255459	255459	255459	255459	270131	270346
§Sundry parts, set . . . . .	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§Switch, starter . . . . .	—	—	—	—	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets ‡ Washer, head, thrust § Recommended spares for stock

For illustrations, see pages N7-N11

continued

DETAILED SPARE PARTS

N20

26061 — 26120

STARTING MOTORS — M35, M45 AND M418 MODELS

Part No. . . . .	26061A	26062A	26066A	26077A	†26085A	26086A/B	26094A	26095A	26097A/D	26100A/B	†26104A	26120A
Model . . . . .	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G
Voltage . . . . .	12	12	12	12	12	12	12	12	12	12	12	12
Rotation . . . . .	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return . . . . .	E.R.	E.R.	I.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote) . . . . .	—	—	—	—	(26097)	—	—	—	—	—	(26123)	—
§Cover band . . . . .	270294	270294	238781	270294	270294	270294	270294	271276	270294	270294	271276	238781
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584	127584	127584	111059	127584	127584	111059	127584
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	200553	169160
§Cap, shaft . . . . .	255854	255854	255854	255854	255854	255854	255854	—	255854	255854	—	—
§Brushes, set . . . . .	255659	255659	271365	255659	255659	255659	255659	271050	255659	255659	271050	271050
§Bracket or frame, commutator end . . . . .	271305	271305	271420	271552	271305	271305	271305	271048	271305	271305	271048	271048
§ Bush, bearing . . . . .	255491	255491	255491	255491	255491	255491	255491	189295	255491	255491	189295	189295
§ Contact set . . . . .	—	—	—	255912	—	—	—	—	—	—	—	—
Nut, field terminal . . . . .	—	—	—	173820	—	—	—	—	—	—	—	—
Bush, insulating, fixing screw . . . . .	—	—	—	164340	—	—	—	—	—	—	—	—
§ Springs, set, brush tension . . . . .	270004	270004	270004	270004	270004	270004	270004	271051	270004	270004	271051	271051
§Drive . . . . .	—	291380	—	291551	291551	291551	291574	—	291551	291457	—	—
Sleeve and drive head . . . . .	—	54251057	—	54251057	54251057	54251057	54251057	—	54251057	54251057	—	—
§ Pinion and sleeve or barrel . . . . .	255182	291101	255194	291104	291104	291104	291573	—	291104	291426	—	—
§ Spring, pinion retaining . . . . .	255727	291541	255728	291550	291550	291550	291541	—	291550	291550	—	—
Ring, barrel retaining . . . . .	—	255815	—	255815	255815	255815	255815	—	255815	255815	—	—
Guide, spring retaining . . . . .	255174	—	291606	—	—	—	—	—	—	—	—	—
Cup, spring retaining . . . . .	255172	—	255172	—	—	—	—	—	—	—	—	—
§ Spring, main . . . . .	270889	291043	270889	291448	291448	291448	291043	—	291448	291448	—	—
Washer, friction . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Plate, transmission . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§ Spring, cushioning . . . . .	—	291034	—	291034	291034	291034	291034	—	291034	291034	—	—
§ Sleeve, screwed, with control nut . . . . .	—	291088	—	291458	291458	291458	291088	—	291458	291458	—	—
Washer, thrust, control nut . . . . .	—	291038	—	291038	291038	291038	291038	—	291038	291038	—	—
Ring, jump . . . . .	—	‡291037	—	‡291037	‡291037	‡291037	‡291037	—	‡291037	‡291037	—	—
Coupling, sleeve to screw shaft . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Pin, pilot, drive to shaft . . . . .	—	291036	—	291036	291036	291036	291036	—	291036	291036	—	—
Nut, location . . . . .	—	—	—	—	291042	—	—	—	—	—	—	—
Collar, location . . . . .	—	291608	—	291608	291608	291608	291608	—	291608	291608	—	—
Circlip, collar location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining . . . . .	—	291786	—	291786	291609	291786	291786	—	291786	291786	—	—
Key, Woodruff . . . . .	—	189345	—	189345	189345	189345	189345	—	189345	189345	—	—
§Collar, bearing . . . . .	255837	—	—	—	—	—	—	—	—	—	—	—
§Nut, shaft . . . . .	—	—	255851	—	—	—	—	—	—	—	—	—
Sleeve, buffer . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Washer, buffer . . . . .	291252	—	291252	—	—	—	—	—	—	—	—	—
Washer assembly, spline and distance . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Bracket or frame, drive end . . . . .	271197	271458	270258	271774	271939	271774	270258	271928	271939	271943	271994	271928
§ Bush, bearing . . . . .	270883	270038	270038	256112	256112	256112	270038	189308	256112	256112	189308	189308
§Bracket or frame, intermediate . . . . .	270480	—	—	270480	270480	270480	—	—	270480	—	—	—
§ Bush, bearing . . . . .	255853	—	—	255853	255853	255853	—	—	255853	—	—	—
Collar, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Armature . . . . .	270406	270532	270482	271780	271780	271780	270532	270931	271780	271528	271997	270931
§Field coils, set . . . . .	271306	271306	271306	270214	271306	271306	271306	271950	271306	271306	271950	271950
Terminal, field coils . . . . .	255835	255835	255835	255400	255835	255835	255835	271053	255835	255835	271053	271053
Terminal, main . . . . .	—	—	—	271429	—	—	—	—	—	—	—	—
§Bolt, through fixing . . . . .	270131	255459	255459	270131	270131	270131	255459	255459	270131	255459	255459	255459
§Sundry parts, set . . . . .	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§Switch, starter . . . . .	—	—	—	—	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets ‡ Washer, head, thrust § Recommended spares for stock

For illustrations, see pages N7-N11

continued

DETAILED SPARE PARTS

Part No.	26123A	26140A	26164A/B	†250231	†250405	†250498	†250542	†250603	†255273	†255376	†255378	†255666
Model	M45G	M45G	M45G	M35G	M35G	M35EL	M35G	M35G	M418A-3	M418G	M418G	M418G
Voltage	12	12	12	12	6	12	12	12	12	12	12	12
Rotation	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Anti-clock	Clock	Clock	Clock
Earth or Insulated Return	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote)	—	—	—	(25017)	(25032)	(25043)	(25033)	(25016)	(25502 & 76428)	(25551)	(25535)	(25514)
§Cover band	270294	270294	270294	250322	250322	250322	250322	250322	255557	255557	255557	255557
Screw, cover band fixing	127584	127584	127584	127584	127584	127584	127584	127584	111059	127584	127584	127584
Nut, cover band fixing screw	169160	169160	169160	169160	169160	169160	169160	169160	200553	169160	169160	169160
§Cap, shaft	255854	255854	255854	255780	255780	250314	250599	255780	255884	255780	255780	255780
§Brushes, set	255659	255659	255659	255659	255659	255659	255659	255659	255240	255659	255659	255659
§Bracket or frame, commutator end	271305	271305	271305	250291	250291	250290	250552	250291	257051	255478	255478	255478
§ Bush, bearing	255491	255491	255491	250626	250626	250626	250626	250626	256112	255491	255491	255491
§ Contact set	—	—	—	255912	255912	—	—	255912	—	255912	255912	255912
Nut, field terminal	—	—	—	173820	173820	—	—	173820	—	173820	173820	173820
Bush, insulating, fixing screw	—	—	—	164340	164340	—	—	164340	—	164340	164340	164340
§ Springs, set, brush tension	270004	270004	270004	270004	270004	270004	270004	270004	255112	270004	270004	270004
§Drive	—	—	—	—	—	—	—	291070	—	—	—	—
Sleeve and drive head	—	—	—	—	—	—	—	291052	—	—	—	—
§ Pinion and sleeve or barrel	—	255649	255194	250196	250415	250307	291069	250607	255262	255489	255649	255672
§ Spring, pinion retaining	—	255728	255728	250430	250430	250391	291077	250430	255728	250429	255728	255727
Ring, barrel retaining	—	—	—	—	—	—	255815	—	—	—	—	—
Guide, spring retaining	—	—	291606	—	—	—	—	—	—	—	—	—
Cup, spring retaining	—	—	255172	—	—	—	—	—	—	—	—	—
§ Sleeve and rubber	—	—	—	—	—	—	—	291059	—	—	—	290081
§ Spring, main	—	270889	270889	250652	250404	250947	—	250652	270889	250652	270889	—
Washer, friction	—	—	—	—	—	—	291055	—	—	—	—	290040
Plate, transmission	—	—	—	—	—	—	291057	—	—	—	—	291362
§ Spring, cushioning	—	—	—	—	—	—	291056	—	—	—	—	—
§ Sleeve, screwed, with control nut	—	—	—	—	—	—	291071	—	—	—	—	—
Washer, thrust, control nut	—	—	—	—	—	—	291038	—	—	—	—	290069
Coupling, sleeve to screw shaft	—	—	—	—	—	—	291065	—	—	—	—	290039
Pin, pilot, drive to shaft	—	—	—	—	—	—	291058	—	—	—	—	—
Nut, location	—	—	—	—	—	—	291042	—	—	—	—	—
Circlip, collar location	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining	—	—	—	—	—	—	—	—	—	—	—	—
Key, Woodruff	—	—	—	—	—	—	189345	—	—	—	—	189345
§Collar, bearing	—	—	—	—	—	—	—	—	255837	255837	—	255837
§ Nut, shaft	—	255851	255851	291969	291969	181300	—	291969	—	—	255851	—
Sleeve, buffer	—	—	—	—	—	—	—	256455	—	—	—	—
Washer, buffer	—	—	291252	—	256303	251057	—	291277	256302	291277	291252	—
Washer assembly, spline and distance	—	—	—	—	—	—	—	—	—	—	—	—
§Bracket or frame, drive end	271994	271458	271458	250292	250412	251380	250551	250292	256133	255480	255073	255673
§ Bush, bearing	189308	270038	270038	250678	250678	250641	270883	250678	270883	270883	270038	270883
§Bracket or frame, intermediate	—	—	—	—	—	—	250550	—	—	255886	—	255945
§ Bush, bearing	—	—	—	—	—	—	250528	—	—	255853	—	255853
Collar, armature location	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil	—	—	—	—	—	—	—	—	—	—	—	—
§Armature	272224	270482	270482	250248	250414	250508	250549	250248	255259	255840	255463	255863
§Field coils, set	271306	271306	270214	250868	250462	250470	250974	250868	255066	256578	256578	256578
Terminal, field coils	255835	255835	255835	255400	255400	—	54252850	255400	256396	255400	255400	255400
Terminal, main	—	—	—	—	—	250244	—	—	—	—	—	—
§Bolt, through fixing	255459	255459	255459	228335	228335	250377	228335	228335	256009	255459	256009	255459
§Sundry parts, set	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§Switch, starter (for details, see page N29)	—	—	—	—	—	76439A	—	—	76439A	—	—	—

STARTING MOTORS — M35, M45 AND M418 MODELS

26123 — 255666

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets § Recommended spares for stock

DETAILED SPARE PARTS

N22

255721 — 270383

STARTING MOTORS — M35, M45 AND M418 MODELS

Part No. . . . .	†255721	†255857	†255901	†255986	†255998	†256011	†256044	†270064	†270244	†270299	†270301	†270383
Model . . . . .	M418G	M418G	M418G	M418G	M418G	M418G	M418G	M45G	M45G	M45G	M45G	M45G
Voltage . . . . .	12	12	6	12	6	12	12	12	12	12	6	6
Rotation . . . . .	Clock	Clock	Anti-clock	Clock	Clock	Clock	Anti-clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote) . . . . .	(25535)	(25514)	(25536)	(25535 & 76022)	(25515)	(25514)	(25516 & 76439)	(26054)	(26038 & 76465)	(26038 & 76465)	(26009)	(26055)
§Cover band . . . . .	255557	255557	255557	255557	255557	255557	255557	270294	270294	271578	270538	270294
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584	127584
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Cap, shaft . . . . .	255780	255780	255854	255780	255854	255780	255854	255780	255780	255780	—	255780
§Brushes, set . . . . .	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659	255659
§Bracket or frame, commutator end . . . . .	255478	255478	256748	255478	256748	255478	256748	271552	271552	271552	271293	271552
§  Bush, bearing . . . . .	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	270330	255491
§  Contact set . . . . .	255912	255912	—	255912	—	255912	—	255912	255912	255912	—	255912
Nut, field terminal . . . . .	173820	173820	—	173820	—	173820	—	173820	173820	173820	—	173820
Bush, insulating, fixing screw . . . . .	164340	164340	—	164340	—	164340	—	164340	164340	164340	—	164340
§  Springs, set, brush tension . . . . .	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004	270004
Sleeve and drive head . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Pinion and sleeve or barrel . . . . .	255649	255263	255165	255649	255941	255182	255093	255263	255194	255194	270029	255263
§  Spring, pinion retaining . . . . .	255728	255727	—	255728	256027	255727	—	255727	255728	255728	270078	255727
Ring, barrel retaining . . . . .	—	—	—	—	—	—	255815	—	—	—	—	—
Guide, spring retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Cup, spring retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Sleeve and rubber . . . . .	—	—	—	—	—	255810	—	—	—	—	—	—
§  Spring, main . . . . .	270889	270889	250652	270889	—	270889	270889	270889	270889	270889	270326	270889
Washer, friction . . . . .	—	—	—	—	255816	—	—	—	—	—	—	—
Plate, transmission . . . . .	—	—	—	—	291362	—	—	—	—	—	—	—
§  Spring, cushioning . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§  Sleeve, screwed, with control nut . . . . .	—	—	—	—	255946	—	—	—	—	—	—	—
Washer, thrust, control nut . . . . .	—	—	—	—	255813	—	—	—	—	—	—	—
Ring, jump . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Coupling, sleeve to screw shaft . . . . .	—	—	—	—	255814	—	—	—	—	—	—	—
Pin, pilot, drive to shaft . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Nut, location . . . . .	—	—	—	—	255806	—	—	—	—	—	—	—
Collar, location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Circlip, collar location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, collar retaining . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Key, Woodruff . . . . .	—	—	—	—	189345	—	—	—	—	—	—	—
§Collar, bearing . . . . .	—	—	255837	—	—	255837	255837	255837	255837	—	—	255837
§Nut, shaft . . . . .	255851	255851	—	255851	—	—	—	—	255851	255851	181300	—
Sleeve, buffer . . . . .	—	—	—	—	—	256304	256304	—	—	—	—	—
Washer, buffer . . . . .	—	—	256303	291252	—	291252	—	256302	—	—	158910	291252
Washer assembly, spline and distance . . . . .	—	—	—	—	—	—	256306	256424	—	—	—	—
§Bracket or frame, drive end . . . . .	255073	255073	255191	255073	256462	255673	255621	270207	270258	270258	270321	270207
§  Bush, bearing . . . . .	270038	270038	270883	270038	256112	270883	270883	270883	270038	270038	270017	270883
§Bracket or frame, intermediate . . . . .	—	—	255886	—	—	255886	255886	270480	—	—	—	270480
§  Bush, bearing . . . . .	—	—	255853	—	—	255853	255853	255853	—	—	—	255853
Collar, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Ring, armature location . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Seal, oil . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
§Armature . . . . .	255463	255463	255867	255463	256490	255620	255620	270406	270482	270482	270335	270387
§Field coils, set . . . . .	256578	256652	255473	256578	255858	256578	256051	270214	270214	270214	270340	270362
Terminal, field coils . . . . .	255400	255400	255835	255400	255835	255400	—	255400	255400	255400	250244	255400
§Bolt, through fixing . . . . .	256009	256009	270131	256009	270131	255459	255459	255459	255459	255459	270329	270131
§Sundry parts, set . . . . .	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762	256762
§Switch, starter . . . . .	—	—	—	—	—	—	—	—	—	—	—	—

Note. For replacement starter spare parts, see appropriate column under part number † When ordering, quote part number shown in brackets § Recommended spares for stock

For illustrations, see pages N7-N11

continued

DETAILED SPARE PARTS

Part No. . . . .	†270401	270468	†270490	270545	†270554	†270557
Model . . . . .	M45G	M45G	M45G	M45G	M45G	M45G
Voltage . . . . .	12	12	12	12	12	12
Rotation . . . . .	Clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return . . . . .	E.R.	E.R.	E.R.	I.R.	E.R.	E.R.
Replaced by (see footnote) . . . . .	(26032 & 76465)	—	(26026)	—	(26040 & 76465)	(26060)
§Cover band . . . . .	271578	270294	270294	238781	270294	270538
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584	127584
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160
§Cap, shaft . . . . .	255780	255780	255780	255780	255780	—
§Brushes, set . . . . .	255659	255659	255659	271365	255659	255659
§Bracket or frame, commutator end . . . . .	271552	271552	271552	271195	271552	270562
§ Bush, bearing . . . . .	255491	255491	255491	255491	255491	270330
§ Contact set . . . . .	255912	255912	255912	255912	255912	—
Nut, field terminal . . . . .	173820	173820	173820	173820	173820	—
Bush, insulating, fixing screw . . . . .	164340	164340	164340	164340	164340	—
§Springs, set, brush tension . . . . .	270004	270004	270004	270004	270004	270004
§Drive . . . . .	—	—	291105	—	—	291089
Sleeve and drive head . . . . .	—	—	291052	—	—	54251057
§ Pinion and sleeve or barrel . . . . .	255649	270472	291101	255194	263011	291050
§ Spring, pinion retaining . . . . .	255728	—	291081	255728	—	291541
Ring, barrel retaining . . . . .	—	—	255815	—	—	255815
Cup, spring retaining . . . . .	—	—	—	—	—	—
§ Sleeve and rubber . . . . .	—	—	291059	—	—	—
§ Spring, main . . . . .	270889	270889	—	270889	270889	291043
Washer, friction . . . . .	—	—	291055	—	255434	163675
Plate, transmission . . . . .	—	—	291057	—	—	291479
§ Spring, cushioning . . . . .	—	—	291056	—	—	291034
Sleeve, screwed, with control nut . . . . .	—	—	291084	—	—	291088
Washer, thrust, control nut . . . . .	—	—	291038	—	256306	291038
Ring, jump . . . . .	—	—	—	—	—	—
Coupling, sleeve to screw shaft . . . . .	—	—	291065	—	—	—
Pin, pilot, drive to shaft . . . . .	—	—	291058	—	—	291036
Nut, location . . . . .	—	—	291042	—	—	291042
Collar, location . . . . .	—	—	—	—	—	—
Circlip, collar location . . . . .	—	—	—	—	—	—
Ring, collar retaining . . . . .	—	—	—	—	—	—
Key, Woodruff . . . . .	—	—	189345	—	—	189345
§Collar, bearing . . . . .	—	—	—	—	255837	—
§Nut, shaft . . . . .	255851	255851	—	255851	—	—
Sleeve, buffer . . . . .	—	—	—	—	—	—
Washer, buffer . . . . .	—	291252	—	291252	291252	—
Washer assembly, spline and distance . . . . .	—	—	—	—	—	—
§Bracket or frame, drive end . . . . .	270370	270296	270258	270258	270550	270520
§ Bush, bearing . . . . .	270038	270038	270038	270038	270883	270882
§Bracket or frame, intermediate . . . . .	—	—	—	—	270480	—
§ Bush, bearing . . . . .	—	—	—	—	255853	—
Collar, armature location . . . . .	—	—	—	—	—	—
Ring, armature location . . . . .	—	—	—	—	—	—
§Armature . . . . .	270482	270482	270532	270482	270406	270470
§Field coils, set . . . . .	270214	270214	270214	270214	270214	270643
Terminal, field coils . . . . .	255400	255400	255400	255400	255400	270356
Terminal, main . . . . .	—	—	—	256333	—	—
§Bolt, through fixing . . . . .	255459	255459	255459	228335	270131	270346
§Sundry parts, set . . . . .	256762	256762	256762	256762	256762	256762
§Switch, starter . . . . .	—	—	—	—	—	—

STARTING MOTORS — M35, M45 AND M418 MODELS

270401 — 270557

Note. For replacement starter spare parts, see appropriate column under part number    † When ordering, quote part number shown in brackets    § Recommended spares for stock

For illustrations, see pages N7-N11

DETAILED SPARE PARTS

N24

26133 — 26148

STARTING MOTORS — M45G (Self Index Models)

Part No. . . . .	26133A	26133B	26133D/E	26133H	26133K	26147A/D	26147F/H	26147J	26148A/B	26148D/F	26148H
Model . . . . .	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G
Voltage . . . . .	12	12	12	12	12	12	12	12	12	12	12
Rotation . . . . .	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
§Cover band . . . . .	272396	272396	272396	272396	272396	272396	272396	272396	272396	272396	272396
Screw, cover band fixing . . . . .	54100520	127584	54100520	54100520	54100520	54100520	127584	127584	54100520	54100520	54100520
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Brushes, set . . . . .	271735	271735	271735	271735	271735	271735	271735	271735	271735	271735	271735
§Bracket or frame, commutator end . . . . .	272845	272845	272845	272845	272845	272845	272845	272845	272845	272845	272845
Terminal, earth . . . . .	—	—	142904	142904	142904	142904	142904	142904	142904	142904	142904
§ Bush, bearing . . . . .	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491
§ Springs, set, brush tension . . . . .	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042
Bolt, pivot . . . . .	272388	272548	272548	272548	272548	272548	272548	272548	272548	272548	272548
Nut, pivot bolt . . . . .	166019	272549	272549	272549	272549	272549	272549	272549	272549	272549	272549
Washer, pivot bolt . . . . .	185040	—	—	—	—	—	—	—	—	—	—
Lever . . . . .	272468	272468	272593	272593	272593	272593	272593	272593	272593	272593	272593
§Drive . . . . .	292130	292130	292130	292130	292130	292124	292124	292124	292124	292124	292124
Ring and rivet, pinion retaining . . . . .	295298	295298	295298	295298	295298	295298	295298	295298	295298	295298	295298
§ Pinion, engaging . . . . .	291859	291859	292134	292134	292134	292031	292031	292031	292031	292031	292031
Cup, return spring . . . . .	—	—	—	54250941	54250941	—	54250941	54250941	—	54250941	54250941
Washer, return spring . . . . .	—	—	—	54148522	54148522	—	54148522	54148522	—	54148522	54148522
§ Spring, pinion return . . . . .	†54252946	†54252946	†54252946	54251114	54251114	†54252946	54251114	54251114	†54252946	54251114	54251114
Sleeve and barrel . . . . .	291911	291911	292131	292131	292131	292131	292131	292131	292131	292131	292131
Bush, sleeve bearing . . . . .	291542	291542	292053	292053	292053	292053	292053	292053	292053	292053	292053
Ring, lock . . . . .	291862	291862	291862	291862	291862	291862	291862	291862	291862	291862	291862
Bush, operating drive . . . . .	291893	291893	291893	291893	291893	291893	291893	291893	291893	291893	291893
Circlip, clutch retaining . . . . .	291560	291560	291560	291560	291560	291560	291560	291560	291560	291560	291560
Plate, retaining . . . . .	291497	291497	291497	291497	291497	291497	291497	291497	291497	291497	291497
Clutch, inner race . . . . .	291498	54253516	54253516	54253516	54253516	54253516	54253516	54253516	54253516	54253516	54253516
Plate, support, inner race . . . . .	—	54251930	54251930	54251930	54251930	54251930	54251930	54251930	54251930	54251930	54251930
§ Clutch plates, set . . . . .	291540	291540	291540	291540	291540	291540	291540	291540	291540	291540	291540
Shim, clutch adjusting, .006" . . . . .	291374	291374	291374	291374	291374	291374	291374	291374	291374	291374	291374
Shim, clutch adjusting, .005" . . . . .	291378	291378	291378	291378	291378	291378	291378	291378	291378	291378	291378
Shim, clutch adjusting, .004" . . . . .	291379	291379	291379	291379	291379	291379	291379	291379	291379	291379	291379
Ring, rear, clutch plates . . . . .	291365	291365	291365	291365	291365	291365	291365	291365	291365	291365	291365
Nut, locking . . . . .	291549	291549	291549	291549	291549	291549	291549	291549	291549	291549	291549
Plate, pressure . . . . .	291367	291367	291367	291367	291367	291367	291367	291367	291367	291367	291367
Sleeve and bush, driving . . . . .	291891	291891	291891	291891	291891	291891	291891	291891	291891	291891	291891
Collar, thrust . . . . .	291894	291894	291894	291894	291894	291894	291894	291894	291894	291894	291894
§Bracket or frame, fixing . . . . .	272391	272391	272553	272553	54252580	272745	272745	54252532	272757	272757	54252536
§ Bush, bearing . . . . .	271364	271364	271364	271364	54252236	271364	271364	54252236	271364	271364	54252236
Grommet, fixing bracket . . . . .	272386	272386	272552	272552	272552	272552	272552	272552	272552	272552	272552
Washer, thrust, drive end . . . . .	134950	134950	134950	134950	—	134950	134950	—	134950	134950	—
Washer, thrust, commutator end . . . . .	—	—	152380	152380	152380	152380	152380	152380	152380	152380	152380
§Bracket or frame, brake . . . . .	272700	272700	272700	272700	54252800	272700	272700	54252800	272700	272700	54252800
§ Bush, bearing . . . . .	271733	271733	271733	271733	54252494	271733	271733	54252494	271733	271733	54252494
Brake shoe and spring . . . . .	272701	272701	272701	272701	272701	272701	272701	272701	272701	272701	272701
Springs, set, brake shoe . . . . .	251528	251528	251528	251528	251528	251528	251528	251528	251528	251528	251528
Washer, brake driving . . . . .	272340	272340	272340	272340	272340	272340	272340	272340	272340	272340	272340
Ring, retainer, driving washer . . . . .	272337	272337	272337	272337	272337	272337	272337	272337	272337	272337	272337
§Armature . . . . .	272334	272334	272334	272334	54251818	272334	272334	54251818	272334	272334	54251818
§Solenoid (for details, see page N29) . . . . .	76448	76458	76458	76458	76458	76458	76458	76458	76458	76458	76458
§Field coils . . . . .	272394	272394	272394	272394	272394	272394	272394	272394	272394	272394	272394
Terminal, main . . . . .	272022	272022	272022	272022	272022	272022	272022	272022	272022	272022	272022
§Bolt, through fixing . . . . .	272752	272752	272752	272752	272752	272660	272660	272660	272752	272752	272752
Plate, fixing bolt . . . . .	—	—	—	—	—	272773	272773	272773	—	—	—
§Sundry parts, set . . . . .	271731	271731	271731	271731	271731	271731	271731	271731	271731	271731	271731

† Spring and cup, pinion return    § Recommended spares for stock



DETAILED SPARE PARTS

Part No. . . . .	26153A/D	26153F/H	26153J	26166A	26166B	26166E/F	26167A	26167B	26167E/F	26170A/B	26170E/J
Model . . . . .	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G
Voltage . . . . .	12	12	12	12	12	12	12	12	12	12	12
Rotation . . . . .	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.	E.R.
§Cover band . . . . .	272396	272396	272396	272396	272396	272396	272396	272396	272396	272396	272396
Screw, cover band fixing . . . . .	54100520	54100520	54100520	54100520	54100520	54100520	54100520	54100520	54100520	54100520	54100520
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
§Brushes, set . . . . .	271735	271735	271735	271735	271735	271735	271735	271735	271735	271735	271735
§Bracket or frame, commutator end . . . . .	272845	272845	272845	272845	272845	272845	272845	272845	272845	272845	272845
Terminal, earth . . . . .	142904	142904	142904	142904	142904	142904	142904	142904	142904	142904	142904
§ Bush, bearing . . . . .	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491	255491
§ Springs, set, brush tension . . . . .	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042
Bolt, pivot . . . . .	272548	272548	272548	272548	272548	272548	272548	272548	272548	272548	272548
Nut, pivot bolt . . . . .	272549	272549	272549	272549	272549	272549	272549	272549	272549	272549	272549
Washer, pivot bolt . . . . .	—	—	—	—	—	—	—	—	—	—	—
Lever . . . . .	272593	272593	272593	272593	272593	272593	272593	272593	272593	272593	272593
§Drive . . . . .	292124	292124	292124	292124	292124	292124	292130	292130	292130	292148	292148
Ring and rivet, pinion retaining . . . . .	295298	295298	295298	295298	295298	295298	295298	295298	295298	295298	295298
§ Pinion, engaging . . . . .	292031	292031	292031	292031	292031	292031	292134	292134	292134	292147	292147
Cup, return spring . . . . .	—	54250941	54250941	—	54250941	54250941	—	54250941	54250941	54250941	54250941
Washer, return spring . . . . .	—	54148522	54148522	—	54148522	54148522	—	54148522	54148522	54148522	54148522
§ Spring, pinion return . . . . .	‡54252946	54251114	54251114	‡54252946	54251114	54251114	‡54252946	54251114	54251114	54251114	54251114
Sleeve and barrel . . . . .	292131	292131	292131	292131	292131	292131	292131	292131	292131	292131	292131
Bush, sleeve bearing . . . . .	292053	292053	292053	292053	292053	292053	292053	292053	292053	292053	292053
Ring, lock . . . . .	291862	291862	291862	291862	291862	291862	291862	291862	291862	291862	291862
Bush, operating drive . . . . .	291893	291893	291893	291893	291893	291893	291893	291893	291893	291893	291893
Circlip, clutch retaining . . . . .	291560	291560	291560	291560	291560	291560	291560	291560	291560	291560	291560
Plate, retaining . . . . .	291497	291497	291497	291497	291497	291497	291497	291497	291497	291497	291497
Clutch, inner race . . . . .	54253516	54253516	54253516	54253516	54253516	54253516	54253516	54253516	54253516	54253516	54253516
Plate, support, inner race . . . . .	54251930	54251930	54251930	54251930	54251930	54251930	54251930	54251930	54251930	54251930	54251930
§ Clutch plates, set . . . . .	291540	291540	291540	291540	291540	291540	291540	291540	291540	291540	291540
Shim, clutch adjusting, .006" . . . . .	291374	291374	291374	291374	291374	291374	291374	291374	291374	291374	291374
Shim, clutch adjusting, .005" . . . . .	291378	291378	291378	291378	291378	291378	291378	291378	291378	291378	291378
Shim, clutch adjusting, .004" . . . . .	291379	291379	291379	291379	291379	291379	291379	291379	291379	291379	291379
Ring, rear, clutch plates . . . . .	291365	291365	291365	291365	291365	291365	291365	291365	291365	291365	291365
Nut, locking . . . . .	291549	291549	291549	291549	291549	291549	291549	291549	291549	291549	291549
Plate, pressure . . . . .	291367	291367	291367	291367	291367	291367	291367	291367	291367	291367	291367
Sleeve and bush, driving . . . . .	291891	291891	291891	291891	291891	291891	291891	291891	291891	291891	291891
Collar, thrust . . . . .	291894	291894	291894	291894	291894	291894	291894	291894	291894	291894	291894
§Bracket or frame, fixing . . . . .	272746	272746	54252546	272746	272746	54252546	272553	272553	54252580	54250465	54252557
§ Bush, bearing . . . . .	271364	271364	54252236	271364	271364	54252236	271364	271364	54252236	271364	54252236
Grommet, fixing bracket . . . . .	272552	272552	272552	272552	272552	272552	272552	272552	272552	272552	272552
Washer, thrust, drive end . . . . .	134950	134950	—	134950	134950	—	134950	134950	—	134950	—
Washer, thrust, commutator end . . . . .	152380	152380	152380	152380	152380	152380	152380	152380	152380	152380	152380
§Bracket or frame, brake . . . . .	272700	272700	54252800	272700	272700	54252800	272700	272700	54252800	272700	54252800
§ Bush, bearing . . . . .	271733	271733	54252494	271733	271733	54252494	271733	271733	54252494	271733	54252494
Brake shoe and spring . . . . .	272701	272701	272701	272701	272701	272701	272701	272701	272701	272701	272701
Springs, set, brake shoe . . . . .	251528	251528	251528	251528	251528	251528	251528	251528	251528	251528	251528
Washer, brake driving . . . . .	272340	272340	272340	272340	272340	272340	272340	272340	272340	272340	272340
Ring, retainer, driving washer . . . . .	272337	272337	272337	272337	272337	272337	272337	272337	272337	272337	272337
§Armature . . . . .	272334	272334	54251818	272334	272334	54251818	272334	272334	54251818	272334	54251818
§Solenoid (for details, see page N29) . . . . .	76458	76458	76458	76474	76474	76490	76474	76474	76490	76458	76474
§Field coils . . . . .	272394	272394	272394	272394	272394	272394	272394	272394	272394	272394	272394
Terminal, main . . . . .	272022	272022	272022	272022	272022	272022	272022	272022	272022	272022	272022
§Bolt, through fixing . . . . .	272752	272752	272752	272752	272752	272752	272752	272752	272752	272752	272752
§Sundry parts, set . . . . .	271731	271731	271731	271731	271731	271731	271731	271731	271731	271731	271731

STARTING MOTORS — M45G (Self Index Models)

26153 — 26170

N25

For illustrations, see pages N7-N11

‡ Spring and cup, pinion return    § Recommended spares for stock



DETAILED SPARE PARTS

STARTING MOTORS — M45G (Pre-engaged) MODELS (with Clutch)

Part No.	26122F	26125A/D	26125E	26135A/D	26135E	26136A	26136D	26136E	†26162A	†26162B/E	26175A
Model	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G	M45G
Voltage	12	12	12	12	12	12	12	12	12	12	12
Rotation	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return	E.R.	E.R.	E.R.	E.R.	E.R.	I.R.	I.R.	I.R.	E.R.	E.R.	E.R.
Replaced by (see footnote)	—	—	—	—	—	—	—	—	(26175)	(26175)	—
§Cover band	271578	271578	271578	271578	271578	271276	271276	271276	272521	272521	272521
Screw, cover band fixing	54100520	54100520	54100520	54100520	54100520	54100520	54100520	54100520	54100520	54100520	127584
Nut, cover band fixing screw	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160	169160
Bracket, control cable	272181	—	—	—	—	—	—	—	—	—	—
§Bracket or frame, commutator end	271614	271614	271614	271614	271614	272509	272509	272509	54251389	54251389	54251389
§ Bush, bearing	255491	255491	255491	255491	255491	255491	255491	255491	250626	250626	250626
§ Springs, set, brush tension	54251042	54251042	54251042	54251042	54251042	54251042	54251042	54251042	270004	270004	270004
Terminal, earth	142904	142904	142904	142904	142904	142904	142904	142904	—	—	—
§Brushes, set	271735	271735	271735	271735	271735	272514	272514	272514	255659	255659	255659
Engaging lever and shoes	271709	271709	271709	271709	271709	271709	271709	271709	†54251220	†54251220	†54251220
Shoe, brake	—	—	—	—	—	—	—	—	272117	272117	272117
Spring, brake shoe	—	—	—	—	—	—	—	—	251528	251528	251528
Top lever and stirrup	271707	271707	271707	271707	271707	271707	271707	271707	—	—	—
Spring, lever return	271219	271219	271219	271219	271219	271219	271219	271219	—	—	—
Bolt or pin, pivot	144784	144784	144784	144784	144784	144784	144784	144784	272548	272548	272548
Nut, pivot pin	—	—	—	—	—	—	—	—	272549	272549	272549
Collar, distance	272612	272612	272612	272612	272612	272612	272612	272612	—	—	—
Bracket, switch fixing	272092	272092	272092	272092	272092	272092	272092	272092	—	—	—
Plate, dust cover	272100	272100	272100	272100	272100	272100	272100	272100	—	—	—
Nut, switch fixing	271751	271751	271751	271751	271751	271751	271751	271751	—	—	156594
§Switch or solenoid	31542	31542	31542	31542	31542	31542	31542	31542	‡76472	‡76472	‡76472
Connector	—	—	—	—	—	—	—	—	54251259	54251259	54251259
§ Screw, terminal	120560	120560	120560	120560	120560	120560	120560	120560	—	—	—
Cover, dust, rubber	271948	271948	271948	271948	271948	271948	271948	271948	†54251855	†54251855	†54251855
§Drive	291484	54254119	291689	291484	291484	291484	291484	291484	—	—	54253114
Spring, tension	291499	291289	291289	291499	291499	291499	291499	291499	—	—	—
§ Spring, cushioning	291500	291500	291500	291500	291500	291500	291500	291500	54250314	54250314	54250314
§ Sleeve and bush	291743	291743	291743	291743	291743	291743	291743	291743	—	—	—
Ring, lock	291013	291013	291013	291013	291013	291013	291013	291013	291013	291013	291013
Clip, lock ring retaining	291539	291539	291539	291539	291539	291539	291539	291539	—	—	—
Bush, drive operating	291488	291488	291488	291488	291488	291488	291488	291488	54250553	54250553	54252853
§ Pinion and barrel, or pinion with race	291559	291693	291693	291559	291559	291559	291559	291559	—	—	—
Bush, bearing	291494	291494	291494	291494	291494	291494	291494	291494	54250559	54250559	54250559
Circlip, barrel retaining	291560	291560	291560	291560	291560	291560	291560	291560	—	—	—
Plate, clutch plates retaining	291497	291497	291497	291497	291497	291497	291497	291497	—	—	—
Nut, locking	291549	291549	291549	291549	291549	291549	291549	291549	—	—	—
§ Clutch plates, set	291540	291540	291540	291540	291540	291540	291540	291540	—	—	—
Shim, clutch adjusting, .006"	291374	291374	291374	291374	291374	291374	291374	291374	—	—	—
Shim, clutch adjusting, .005"	291378	291378	291378	291378	291378	291378	291378	291378	—	—	—
Shim, clutch adjusting, .004"	291379	291379	291379	291379	291379	291379	291379	291379	—	—	—
Ring, rear, clutch plates	291365	291365	291365	291365	291365	291365	291365	291365	—	—	—
Plate, pressure	291367	291367	291367	291367	291367	291367	291367	291367	—	—	—
Clutch, inner race	54253516	54253516	291498	54253516	54253516	54253516	291498	54253516	—	—	—
Plate, support, inner race	54251930	54251930	—	54251930	54251930	54251930	—	54251930	—	—	—
§Bracket or frame, fixing	54252708	272084	54252703	54252708	54252708	272197	54252708	54252708	54253117	54253117	54253117
§ Bush, bearing	54252236	271364	54252236	271364	54252236	271364	54252236	54252236	54250589	54250589	54250589
Ring, retaining	—	—	—	—	—	—	—	—	54250231	54250231	54250231
Collar, thrust	—	—	—	—	—	—	—	—	54250230	54250230	54250230
Washer, thrust, drive end	—	—	—	—	—	—	—	—	54250549	54250549	54250549
Washer, thrust, commutator end	—	—	—	—	—	—	—	—	272130	272130	272130
§Bracket or frame, brake	54251821	271747	54251821	271747	54251821	271747	54251821	54251821	—	54251856	54251856
§ Bush, bearing	54252494	271733	54252494	271733	54252494	271733	54252494	54252494	—	54251857	54251857
§ Washer, brake bracket	272424	272424	272424	272424	272424	272424	272424	272424	—	—	—
§Armature	54251818	272334	54251818	272334	54251818	272334	54251818	54251818	54251216	54251216	54251216
§Field coils, set	272219	272219	272219	272219	272219	272219	272219	272219	271148	271148	271148
Terminal, field	255835	255835	255835	255835	255835	54254711	255835	255835	272355	272355	272355
§Bolt, through fixing	272752	272752	272752	272752	272752	272752	272752	272752	270131	270131	272752
§Sundry parts, set	271731	271731	271731	271731	271731	271731	271731	271731	271731	271731	271731

Note. For replacement spare parts, see appropriate column under part number    † When ordering, quote part number shown in brackets    ‡ Less shoes    § Recommended spares for stock  
 †† For details, see page N29    ††† Grommet

For illustrations, see pages N7-N11

## STARTING MOTORS – M45G (Clutchless) AND M325 (Pre-engaged) MODELS



### DETAILED SPARE PARTS

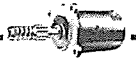
Part No. . . . .	25300H/K	25301A/D	25301E/M	25304A/D	†26028A
Model . . . . .	M325	M325	M325	M325	M45G-O
Voltage . . . . .	12	12	12	12	12
Rotation . . . . .	Clock	Clock	Clock	Clock	Clock
Earth or Insulated Return . . . . .	E.R.	E.R.	E.R.	E.R.	E.R.
Replaced by (see footnote) . . . . .	—	—	—	—	(26077)
§Cover band . . . . .	253039	253154	253154	253154	270538
Screw, cover band fixing . . . . .	127584	127584	127584	127584	127584
Nut, cover band fixing screw . . . . .	169160	169160	169160	169160	169160
§Cap, shaft . . . . .	—	—	—	—	255854
§Brushes, set . . . . .	251108	251108	251108	251108	255659
§Bracket or frame, commutator end . . . . .	253037	253037	253037	54250237	271536
§ Bush, bearing . . . . .	253035	253035	253035	253035	255491
§ Springs, set, brush tension . . . . .	54253569	54253569	54253569	54253569	270004
Lever and peg or pin . . . . .	253121	253177	253177	253177	256290
Bush, gunmetal, friction . . . . .	—	—	—	—	256145
Screw, lever fixing . . . . .	253029	—	—	—	—
Nut, lever . . . . .	177014	—	—	—	—
Washer, lever . . . . .	135264	—	—	—	—
Spring, lever or brake . . . . .	253076	—	—	251528	271219
Pin, spring retaining . . . . .	—	—	—	251536	—
§Shoe, operating . . . . .	253070	253070	253070	253070	—
Cover, lever, with spring . . . . .	—	—	—	—	—
Gasket, cover . . . . .	—	—	—	—	—
Bolt, pivot . . . . .	—	272388	253390	253390	—
Nut, pivot bolt . . . . .	—	166019	272549	272549	—
§Drive . . . . .	291642	292052	292052	292052	—
Bush, operating lever . . . . .	291652	292021	292021	292021	—
Pinion, sleeve and bushing . . . . .	291987	291987	291987	291987	—
§ Bush, pinion . . . . .	291662	291662	291662	291662	—
Spring, cushioning or tension . . . . .	292162	292162	292162	292162	—
Ring, locking . . . . .	291655	291655	291655	291655	—
§Bracket or frame, fixing . . . . .	253030	54250220	54250220	54250220	271153
§ Bush, bearing . . . . .	253111	253111	253111	253111	256112
§Grommet, bracket fixing . . . . .	—	253179	253179	253179	—
Bracket, frame or plate, brake . . . . .	253041	253041	253041	—	271154
Washer, brake plate . . . . .	253036	253036	253036	—	—
Jump ring, plate retaining . . . . .	—	—	—	291013	291013
§Switch or solenoid (for details see page N29)	76442	76448	76448	76448	—
Screw, switch fixing . . . . .	126463	—	—	—	—
Strap or connector, solenoid . . . . .	—	765755	765755	765755	—
Contact set, solenoid . . . . .	—	—	—	—	761588
Relay . . . . .	—	—	—	—	33085
§Armature . . . . .	253151	253151	253151	54250234	—
Washer, cup, armature location . . . . .	253172	—	—	—	—
Circlip, armature location . . . . .	253171	—	—	—	—
§Field coils, set . . . . .	253018	253145	253145	253145	271148
Terminal, field coils . . . . .	253019	253147	253147	253147	256396
Washer, plain . . . . .	135170	—	—	—	—
Washer, insulating . . . . .	164342	—	—	—	—
Bush, insulating . . . . .	164340	—	—	—	—
Screw, pole piece . . . . .	117270	—	—	—	—
§Bolt, through fixing . . . . .	253047	253047	253047	253047	272752
§Sundry parts, set (starting motor) . . . . .	—	253398	253398	253398	271731
§Sundry parts, set (solenoid) . . . . .	—	—	—	—	761648

*For illustrations, see pages N7–N11*

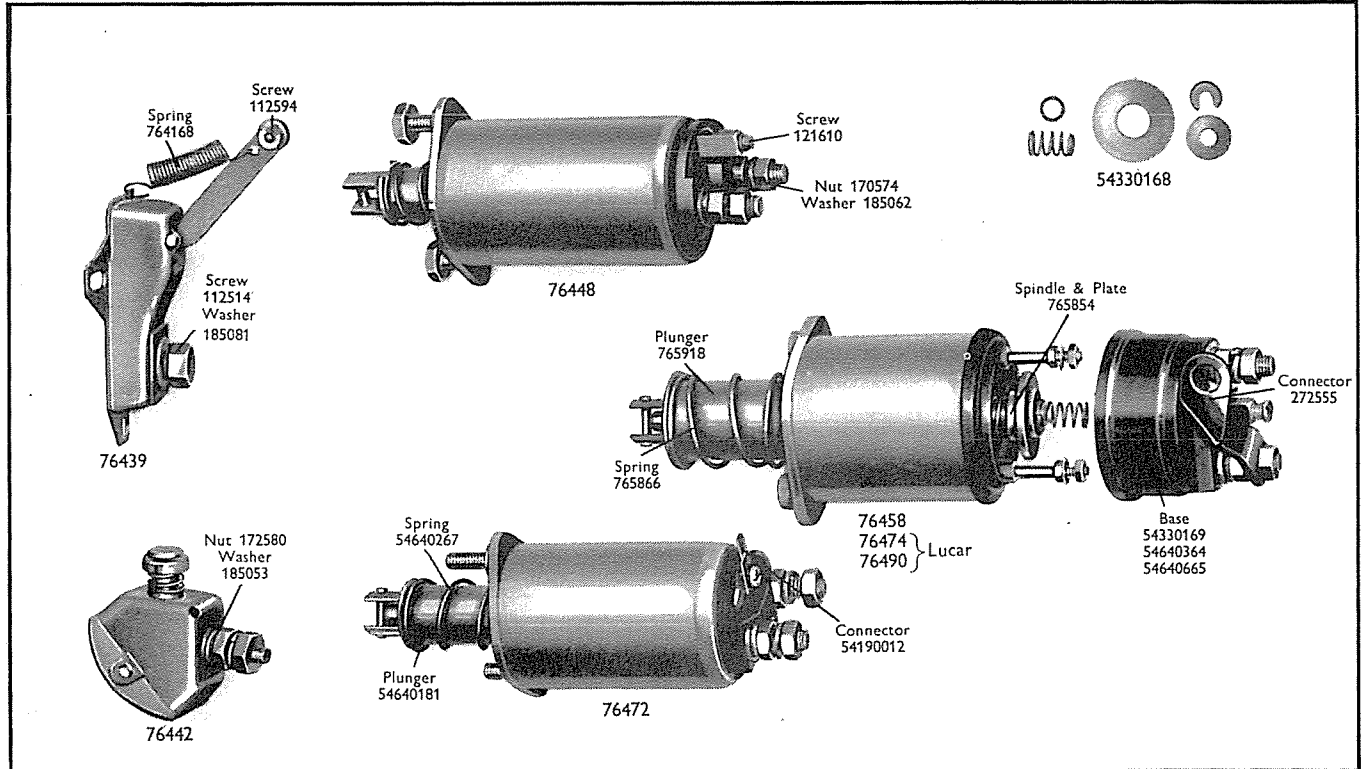
Note. For replacement starter spare parts, see appropriate column under part number (page N20)  
 § Recommended spares for stock

† When ordering, quote part number shown in brackets

# STARTING MOTOR MOUNTED SWITCHES



## STARTER AND SOLENOID SWITCHES



### DETAILED SPARE PARTS

Part No.	76439A	76442A/B	76448A	76458A	76472A	76474A	76490B
Model	ST9	4SA	6S	7S	10S	7S	7S
Spindle and contact	—	—	—	765854	—	765854	765854
Plate, contact, with washers	—	—	—	54330168	—	54330168	54330168
Base, with nuts, washers and gasket	—	—	—	54330169	—	54640364	—
§Nut, terminal	—	172580	170574	†170574	—	†170574	156456
§Washer, spring, terminal	185081	185053	185062	185062	—	185062	185062
§Screw, terminal	112514	—	121610	121610	—	121610	121610
Plunger	—	—	—	765918	54640181	765918	765918
Spring, lever or plunger	764168	—	—	765866	54640267	765866	765866
Screw, lever	112594	—	—	—	—	—	—
Connector, terminal to starter	—	—	—	272555	54190012	272555	272555

§ Recommended spares for stock

† Later modification 'B'—use 156456, not interchangeable



# STARTING MOTORS

## VEHICLE APPLICATION REFERENCE

- 25006 M35G. 12v.; clockwise; earth return. A.F.N. 'Le Mans' and 'Mille Miglia' 1951-54. Bristol All Models 1947-50.
- 25007 M35G. 12v.; clockwise; earth return. Lanchester 10 1946-51.
- 25013 M35G. 12v.; clockwise; earth return. Austin A40 1948-49.
- 25014 M35G. 12v.; clockwise; earth return. Bedford 10/12 cwt. 1948-52. Vauxhall 'Wyvern' and 'Velox' 1948-52.
- 25016 M35G. 12v.; clockwise; earth return. Commer 8 cwt. 1946-48. Hillman 'Minx' 1946-48. Sunbeam-Talbot 10 1946-47; '80' 1948-49.
- 25017 M35G. 12v.; clockwise; earth return. H.R.G. 9 and 12 1946-52. Morgan 'Plus Four' 1946-50. Singer 9 Roadster, 10 and 12 1946-49. Sunbeam-Talbot 10 1946.
- 25021 M35G-1. 12v.; clockwise; earth return. Morris 'Oxford' 1948-55; 'Cowley' and Half Ton Van and Truck 1950-56. Morris Commercial 'J' Van 1949-57. Standard 'Eight', 'Ten', 'Companion' Estate Car, 6 cwt. Van and Truck 1954-60. Wolseley 'Four Fifty' 1949-53.
- 25022 M35G-1. 12v.; clockwise; earth return. Allard '21C' 1953-55. Austin A30 1952-56; A35 1957-60; A40 and A50 1949-57; A40 and 10 cwt. 101 Van and Healey 'Sprite' 1959-60; A55 1958-60; 'Metropolitan' and 152 Range 1957-60. Beardmore Taxi Mk. VII (Ford 'Consul' engine) 1955-58. Bedford CA Van 1953-57. Commer 8 cwt. and Estate Car 1949-52; 'Express' Delivery Van and Truck 1953-60; 'Cob' 1957-60; 3 ton Goods and Passenger 1960. Dellow 1955-57. Elva 'Courier' (B.M.C. 1,500 c.c. engine) 1959-60. Fairthorpe 'Electron' and 'Electron Minor' 1958-60. Hillman 'Minx' 1948-60; 'Husky' 1955-60. Jensen 'Tempo 1500' 1958-60. Jowett 'Bradford' Van 1951-54; De Luxe Van and Utility 1951-52. Layton Sports Cars 'Jomar' (T.V.R.) (Ford engine) 1959-60. Lotus with Austin, Ford, Coventry Climax and M.G. engines 1958-60. M.G. 1½ litre 1950-53; 'Midget' 1950-60; 'Magnetite' 1954-60. Morgan 'Four Four' 1956-60. Morris 'Minor' 1958-60; 'Cowley' 1955-59; 'Oxford Traveller' 1956-60; 'Oxford' Saloon, 'Hindustan' and Quarter Ton Van and Truck 1954-60; Half Ton Van and Truck 1957-60. Morris Commercial 'J2' Models 1957-60; 'JB' Van 1958-60. Nash 'Metropolitan' 1954-60. Reliant 'Regal' Car and 5 cwt. Van (12 volt) 1959-60; 10 cwt. 3-wheeler Van (12 volt) 1951; 'Regent' 1952-56; 'Regent Four' Van (Export only) 1959-60. Riley 'Four Sixty-Eight' 1959-60. Singer 9 Roadster 1950-51; 4AC and 4AD 1952-55; 'SM1500' 1949-54; 'Hunter' and 'S' Model 1955-56; 'Gazelle' 1957-60. Standard 'Pennant' 1958-59; 'Atlas' 10/12 cwt. Van and Truck 1959-60. Sunbeam 'Alpine' Sports 1959-60; 'Rapier' 1956-60. Sunbeam-Talbot '80' (late) 1949-50. Triumph 'Mayflower' (later) 1952-53; 'Herald' 1959-60. Vauxhall 'Wyvern', 'Cresta', 'Grosvenor' Estate Car and 'Dormobile' (later) 1952-57. Wolseley 'Four Forty-Four' 1953-56; 'Fifteen Sixty' 1959-60; 'Fifteen Hundred' 1958-60; 'Fifteen Fifty' 1957-59.
- 25025 M35G-1. 12v.; anti-clockwise; earth return. Jowett 'Javelin' 1948-54; 'Jupiter' 1951-54.
- 25026 M35G-1. 12v.; clockwise; earth return. A.C. Cars 'Ace' and 'Aceca' (Bristol engine) 1956-60. A.F.N. 'Le Mans' and 'Mille Miglia' (late) 1951-54. Bristol All Models 1951-60. Frazer Nash 'Mille Miglia', 'Targo Florio' and 'Sebring' Hard Top 1955.
- 25031 M35G-1. 6v.; clockwise; earth return. Jowett 'Bradford' and De Luxe Vans and Utility 1950. Wolseley 8 (late) 1947-48.
- 25032 M35G. 6v.; clockwise; earth return. A.C. Cars Invalid Carriage 1947-52. Austin 8 1946-47. Barrett Invalid Carriage 1949-51. Larmar Invalid Carriage 1952-54. Lloyd Roadster 1948-50. Morris 8 1946-48; 5 cwt. Van 1946-52. Reliant 750 c.c. 4 cylinder 3-wheeler 1946-53. Standard 'Eight' 1946-48. Wolseley 'Eight' 1946-47.
- 25034 M35G-1. 12v.; clockwise; earth return. A.C. Cars 'Petite' 1953. Triumph 'Mayflower' 1950-52.
- 25037 M35G-1. 6v.; clockwise; earth return. A.C. Cars Invalid Carriage (late) 1952-53. Allard 'Clipper' 3-wheeler 1955. Barrett Invalid Carriage 1952-54; All-weather Vehicle 1953-55. Encon 'Clipper' 1954. George Fitt Invalid Carriage 1951-55. Invacar Invalid Carriage 1953-55. Morris 5 cwt. (later) 1952-53. Reliant 750 c.c. 4 cylinder 3-wheeler (later) 1953-54; 'Regal' Car (6 volt) 1953-59; 6 cwt. Van and Truck (6 volt) 1954-55.
- 25043 M35EL. 6v.; clockwise; earth return. Midland Vehicles Battery Models 1948-52.
- 25047 M35G-1. 12v.; clockwise; earth return. A.C. Cars 'Petite' (late) 1953-57.
- 25050 M35G. 12v.; clockwise; earth return. Reliant 'Regal' Car (12 volt) 1959.
- 25058 M35G. 12v.; clockwise; earth return. Lanchester 'Sprite' 1955-56.
- 25061 M35G-1. 12v.; clockwise; earth return. Bedford CA Van 1958-60. Vauxhall 'Victor' Series III, 'Envoy' Station Wagon, 'Velox', 'Cresta' and 'Friary' Estate Car 1958-60.
- 25063 M35G. 12v.; clockwise; earth return. Layton Sports Cars 'Jomar' (T.V.R.) (Coventry Climax engine) 1959-60. Lotus Mk. IX (Coventry Climax or M.G. engine) (later) 1959; 'Elite' 1959-60.
- 25065 M35G. 12v.; clockwise; earth return. Fairthorpe 'Atomota' and 'Zeta' 1959-60.
- 25071 M35H. 12v.; clockwise; earth return. Austin 'Seven' and ½ ton Van 1959-60. Lotus Mk. VII Series II (Ford 105E engine) 1960. Morris 'Mini-minor' (850) and 'Mini-van' 1959-60.
- 25075 M35G-1. 12v.; clockwise; earth return. Austin 'Seven' (850) and ½ ton Van 1960. Morris 'Mini-minor' and 'Mini-van' 1960.
- 25300 M325. 12v.; clockwise; earth return. Alfa Romeo 'Giulietta' (Sports, 750 'Berlina') and (Sport, 750B) 1955-56.
- 25304 M325. 12v.; clockwise; earth return. Alfa Romeo 'Giulietta' (Sports, 750C 'Berlina'), (Sports 750B) and (t.i. 753) 1957-60; 'Giulietta Spyder' 1956-60.
- 25502 M418G. 12v.; anti-clockwise; earth return. Citroen 15 1946-48.
- 25512 M418G. 12v.; anti-clockwise; earth return. Wolseley 14 and 18 1946-48.
- 25513 M418G. 12v.; clockwise; earth return. Citroen 23 1949-55.
- 25514 M418G. 12v.; clockwise; earth return. A.C. Cars 16 1948-57; 'Ace' and 'Aceca' (A.C. engine) 1955-60. Rover 10, 12, 14 and 16 1946-47; '75' 1948-53; '60' and 'Landrover' (Petrol) 1948-54.
- 25515 M418G. 6v.; clockwise; earth return. Bedford 5/6 and 10/12 cwt. 1946-47. Vauxhall 10 and 12 1946-47.
- 25516 M418G. 12v.; anti-clockwise; earth return. Morris 10 cwt. Van 1946-50.
- 25518 M418G. 12v.; clockwise; earth return. Morris 'Six' 1948-54. Wolseley 'Six Eighty' 1949-54.
- 25521 M418G. 12v.; clockwise; earth return. Armstrong Siddeley All Models (except 'Sapphire') 1950-53; 'Sapphire 236' 1956-58. Austin A70 1949-55; A90 'Atlantic' 1949-52; A90 and A95 1955-59; A99 1959-60; A105 1957-59; B.M.C. 3 litre 'Princess' 1960; All Austin-Healey Models (except 'Sprite') 1954-60; Taxi (Petrol) 1949-58; Hire Car (Petrol) 1950-58; 1½ ton Series IVFG (Petrol) 1960; 'Gipsy' 1958-60. Bedford TA, TC and TJ Trucks (Petrol) 1953-57; OSA-OLA, OSB-OLB, MS-ML and OSS 1951-53. Commer 25 cwt. Forward Control 1951-56; 1½/1½ ton Forward Control Mk. V (Petrol) 1956-60; Medium Pick-up Truck Mk. IV 1951-56; ¾/1½ ton 'Superpoise' Van and Medium Pick-up Truck Mk. V (Petrol) 1956-60. Daimler 2½ litre (except 'Consort') 1951-53; 'Consort' 1950-53; 3 litre 'Regency' 1953; 'Conquest' 1954-58; 'Empress' and 'Regency' 1955; 'One-O-Four' 1956-58. Humber 'Hawk' 1949-60; 'Super Snipe' 1959-60. Jaguar 2½ litre 1949-51; 2.4 litre 1956-60. Jensen 'Jen-Tug' 1952-54. Karrier 'Bantam' (Petrol) 1951-60; 1½/1½ ton Passenger Chassis (Petrol) 1957-60. Lanchester 14 1952-53. Lea Francis 14 1950-54. Morris 'Isis' 1956-58. Morris Commercial LO1 and LO2 1954; 1½ ton Series IVFG (Petrol) 1960. Riley 1½ litre 1949-55; 'Pathfinder' 1954-57; 'Two-Point-Six' 1958-59. Sunbeam 'Alpine' and 'Alpine Special' 1953-55; Saloon and Coupé 1955-57. Sunbeam-Talbot '90' 1950-54. Wolseley 'Six Ninety-Nine' 1959-60; 'Six Ninety' 1955-59.
- 25526 M418G. 12v.; clockwise; earth return. Morgan 'Plus Four' 1951-54. Standard 'Vanguard' (Petrol) 1948-52. Triumph '2000' 1949; 'Renown' 1950-52.
- 25529 M418G. 12v.; clockwise; earth return. Allard '21Z' 1953-55.
- 25531 M418G. 12v.; anti-clockwise; earth return. Citroen 15 1949-55.
- 25533 M418G. 12v.; clockwise; earth return. Daimler 'One-O-Four' 1958-59; 'Majestic' 1959-60; SP250 1960. Morris 'Oxford' Taxi and Hire Car 1951. Morris Commercial 15/20 cwt. (PV) 1949-53; 25/30 cwt. (LC3) 1949-52; 30 cwt. LC4 (Petrol) 1953. Rover '75' and '90' 1954; 3 litre 1959; All Petrol Models (except 3 litre) 1955-60.
- 25535 M418G. 12v.; clockwise; earth return. Alvis 14 1946-50. Armstrong Siddeley All Models 1946-49. Austin 10 and 12 1946-47; 16 1946-48; A70 1948-49; Taxi (Petrol) 1948. Commer 15/25 cwt. 1946-48; 25 cwt. Forward Control and 'Superpoise' 1946-50. Daimler 2½ litre (except 'Consort') 1946-50. Humber 'Hawk' 1946-48. Jaguar 1½ litre 1946-48; 2½ litre 1946-47. Karrier 'Bantam' 1946-50; 'Cob' 1947-48. Lea Francis 14 1946-49; 1½ litre Sports 1949. M.G. 1½ litre 1947-49; 'Midget' 1946-49. Morris 10 1946-48; 'Oxford' Taxi and Hire Car 1947-50. Morris Commercial 15/20 cwt. (PV) and 25/30 cwt. 1946-48. Riley 1½ litre 1946-48. Standard 12 and 14 1946-48. Sunbeam-Talbot 2 litre 1946-47; '90' 1948-49. Triumph '1800' 1946-48. Wolseley 10 and 12 1946-48.
- 25536 M418G. 6v.; anti-clockwise; earth return. Jowett 'Bradford' Van 1946-49; De Luxe Van and Utility 1949.
- 25541 M418G. 12v.; clockwise; earth return. Morgan 'Plus Four' (TR2/3 engine) 1955-60. Peerless 'Gran Turismo' 1959-60. Standard 'Vanguard' (Petrol) 1953-56; 'Ensign' (Borg Warner transmission) 1959-60. Swallow 'Doretti' 1954-55. Triumph TR2 and TR3 1954-59; 'Renown' 1953-54.
- 25549 M418G. 12v.; anti-clockwise; earth return. Jaguar XK-SS Open 2-seater 1958.

continued

# STARTING MOTORS

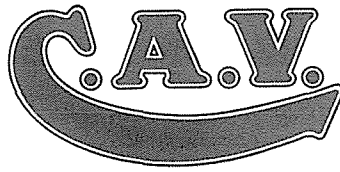


## VEHICLE APPLICATION REFERENCE—continued

- 25550 M418G. 12v.; clockwise; earth return. Morgan 'Plus Four' ('Vanguard' engine) 1959-60. Standard 'Vanguard' (later) 1956-60; 'Ensign' 1958-60. Triumph TR3 (later) 1959-60.
- 25551 M418G. 12v.; clockwise; earth return. Trojan 15/20 cwt. (Petrol) 1946-60.
- 25553 M418G. 12v.; anti-clockwise; earth return. Citroen DS19 1956-60; ID19 1959-60; 'Safari' 1960.
- 25557 M418G. 12v.; clockwise; earth return. Bedford TC Trucks (Petrol) 1958-60.
- 26008 M45G. 12v.; clockwise; earth return. Aston Martin 2 litre 1947-50. Morris Commercial CV Ambulance, ECV13/5 and FV 1949.
- 26009 M45G. 6v.; clockwise; earth return. Dellow Sports 1952-54. Jensen 'Jen-Tug' 1946-52. Meynell All Models 1952. Paramount Roadster and Coupé 1951-54.
- 26023 M45G. 12v.; clockwise; earth return. Bentley All Models (right hand drive) 1946-54. Rolls-Royce All right hand drive Models 1946-55.
- 26025 M45G. 12v.; clockwise; earth return. Dodge All Petrol Models 1949.
- 26026 M45G. 12v.; clockwise; earth return. Commer 2 and 3 ton 1946-47; 2/3, 3/4 and 4/5 ton (Petrol) 1949; 3 and 4 ton Trucks, Pantechinon, Tipper and 'Commando' (Petrol) 1947-59; 5 ton 1947. Humber 'Imperial', 'Pullman' and 'Super Snipe' 1946-49; 'Snipe' 1946. Karrier CK3 1946-48.
- 26032 M45G. 12v.; clockwise; earth return. Jaguar 3½ litre 1946-51.
- 26033 M45G. 12v.; clockwise; earth return. Bentley All left hand drive Models 1946-54. Rolls-Royce All left hand drive Models 1946-55.
- 26038 M45G. 12v.; clockwise; earth return. Austin 'Sheerline' 1948-49; 'Princess' 1948; 25 cwt. Van and Ambulance 1949; 2 and 3 ton 1946-48; Coach 1947-49. Daimler 27 and 36 Limousine 1946-53; DC27 Ambulance 1949; 4½ litre Limousine 1958-60. Healey All Models 1948-50. Lagonda 2½ litre 1949-50. Morris Commercial CV Ambulance, CV9/40, FV, FVS, CV11/40, NV and NVS (Petrol) 1950-55; PP Coach 1950-51. Riley 2½ litre 1947-49. Wolseley 25 1948.
- 26041 M45G. 12v.; clockwise; earth return. Alvis All Models 1951-60. Armstrong Siddeley 'Sapphire' (except 'Sapphire 236') 1953-59; ½ ton Pick-up Truck (Export only) 1957; 'Star' Limousine 1960. Commer 2/3, 3/4, 4/5 and 5 ton 'Superpoise' and 'Commando' (Petrol) 1949-53; 8 ton Tractor Trailer 1950. Humber 'Imperial', 'Pullman' and 'Super Snipe' 1950-54. Jaguar 3.4 and 3.8 litre 1958-60. Karrier CK3 1949-52. Lea Francis 18 and 2½ litre Sports 1952-54.
- 26042 M45G. 12v.; clockwise; earth return. Jaguar XK120 1949-52.
- 26043 M45G. 12v.; clockwise; earth return. Armstrong Siddeley 'Star Sapphire' 1959-60. Aston Martin All Models 1951-54. Austin A125 1949-54; A135 'Princess' 1949-60; 'Princess' Mk. IV 1957-59; Ambulance and Hearse 1951-60; Cargo Truck (Civilian) 1954-55; LD1A and LD2A 1955-60; 25 cwt. Van and Ambulance 1950-54; Series II Trucks 1949-55; Series III Trucks and Prime Mover (Petrol) 1956-60; Series IVFF Trucks and Prime Mover (Petrol) 1959-60; 2, 3 and 4 ton Series IVFG Trucks (Petrol) 1960; Coach (Petrol) 1950-60; Series III Petrol Tanker 1957-58; 301 Range (Petrol) 1957-60. Bedford 'S' and 'SB' Models and 'SH' Fire Engine Chassis 1951-53.
- 26043—continued  
Daimler DC27 Ambulance 1950-54; 'Regency' and 'Regina' 1955; 4½ litre Limousine 1956-60. Healey 'Silverstone' (later) 1950; All Models 1951-54. Jensen 'Interceptor' 1950-55; '541' and '541R' 1954-60. Lagonda 2½ litre (later) 1950-52; 3½ litre Saloon and Coupé 1954-58. Morris Commercial LCS 1954-60; LDI and LD2 1955-60; 3 ton 3KNC (G.P.O.) 1956-59; Series III Trucks and Prime Mover (Petrol) 1956-60; 2, 3 and 4 ton Series IVFG Trucks (Petrol) 1960; Series IVFF Trucks, Prime Mover and Coach (Petrol) 1959-60. Riley 2½ litre 1950-53.
- 26045 M45G. 12v.; clockwise; earth return. Lea Francis 18 and 2½ litre Sports 1950-52.
- 26050 M45G. 12v.; clockwise; earth return. Dodge All Petrol Models 1950-55.
- 26051 M45G. 12v.; clockwise; earth return. Austin 2 and 3 ton (Diesel) 1955; 301 Range (Diesel) 1960. Morris Commercial LCO5 (Diesel) 1960; NVO12/3 and NVO11/5 (later) 1955.
- 26054 M45G. 12v.; clockwise; earth return. Bedford Bus 1946-50.
- 26055 M45G. 6v.; clockwise; earth return. Bedford 30 cwt., 2/3, 3/4 and 5 ton Trucks and Scammell Tractor 1946-50; Ambulance 1949-50.
- 26060 M45G. 12v.; clockwise; earth return. Allard All Models (except 'Clipper', '21C', '21X' and Cadillac engine) 1947-56. Jensen 3½ litre 1946-47.
- 26061 M45G. 12v.; clockwise; earth return. Austin 'Champ' 1954-56.
- 26062 M45G. 12v.; clockwise; earth return. Jaguar 3½ litre 1951-58; Mk. VIII and Mk. IX 1957-60; XK120, XK140 and XK150 1953-60.
- 26063 M45G. 6v.; anti-clockwise; earth return. Cooper 'Monaco' (Coventry Climax engine) 1959-60. Fairthorpe 'Electron' 1959-60.
- 26066 M45G. 12v.; clockwise; insulated return. Austin 2/5 ton Petrol Tanker 1952-55; Series III Petrol Tanker 1959-60. Morris Commercial Petrol Tanker 1951-52; Series III Petrol Tanker 1959-60.
- 26071 M45G. 12v.; clockwise; earth return. Standard 'Vanguard' (Diesel) 1954-57.
- 26077 M45G. 12v.; clockwise; earth return. Commer 5 and 7 ton Forward Control 1949-51; 6½ and 7 ton 1949-50; 'Avenger' (Petrol, 12 volt) 1949-51.
- 26086 M45G. 12v.; clockwise; earth return. Commer 5 and 7 ton Forward Control, 'Avenger' (Petrol, 12 volt) and Fire Tender or Pump Chassis 1952-53. Karrier 'Gamecock' 1953-54.
- 26094 M45G. 12v.; clockwise; earth return. Commer 2/3, 3/4 and 5 ton 'Superpoise' and 'Commando' (Petrol) 1953-57; 2/5 and 6 ton 'Superpoise' (Petrol) 1955-60; 3 ton four-wheel drive Cross Country Vehicle 1956; 4, 5 and 6 ton Forward Control (Petrol) 1959-60; 5 and 7 ton Forward Control, 'Avenger' Coach (Petrol, 12 volt) and Fire Tender or Pump Chassis 1954-60. Humber 'Super Snipe' 1955-57. Karrier 'Gamecock' (Petrol) 1955-60. Smiths Delivery Vehicles (Petrol) 1956-58.
- 26095 M45G. 12v.; clockwise; earth return. Bentley 4½ litre (automatic transmission) 1952-54.
- 26097 M45G. 12v.; clockwise; earth return. Jaguar 3½ litre 1955-58.
- 26100 M45G. 12v.; clockwise; earth return. Dodge All Petrol Models 1956-60.
- 26112 M45G. 12v.; clockwise; earth return. Trojan 15/20 cwt. (Diesel) 1957-60.
- 26116 M45G. 12v.; clockwise; earth return. Austin Taxi and Hire Car (Diesel) 1955-58.
- 26120 M45G. 12v.; clockwise; earth return. Bentley Model 'S' (synchromesh) 1957-59. Rolls-Royce 'Silver Cloud' (synchromesh) 1956-59.
- 26122 M45G. 12v.; clockwise; earth return. Austin 3 and 4 ton (Diesel) and 301 Range (Diesel) 1957. Morris Commercial LCO (Diesel) and 2/3 and 4 ton (Diesel) 1956-57.
- 26123 M45G. 12v.; clockwise; earth return. Bentley Model 'S' (automatic transmission) 1955-59. Rolls-Royce 'Silver Cloud' (automatic transmission) 1956-59.
- 26125 M45G. 12v.; clockwise; earth return. Austin LDO1A and LDO2A 1956-60. Morris Commercial LCO5X 1958-59; LDO1 and LDO2 1956-60.
- 26133 M45G. 12v.; clockwise; earth return. Austin Light 2 ton (3.4 litre Diesel), LCFO and 301FC 1958-59. Commer 1½/1½ ton Forward Control, 1 ton Forward Control and ¾/1½ ton 'Superpoise' (Diesel) 1957-60. Karrier 'Bantam' (Diesel) and 1½/1½ ton Passenger Chassis (Diesel) 1957-60. Morris Commercial LCFO 1958-59.
- 26135 M45G. 12v.; clockwise; earth return. Austin 3 and 4 ton Series III (Diesel) and 301 Range (Diesel) 1958-60. Morris Commercial LCO5 (Diesel) 1958-59; 2/3 and 4 ton Series III (Diesel) 1958-60.
- 26136 M45G. 12v.; clockwise; insulated return. Austin 3/4 ton Series III Petrol Tanker (Diesel) 1957-60. Morris Commercial 2/3 and 4 ton Series III Petrol Tanker (Diesel) 1957-60.
- 26147 M45G. 12v.; clockwise; earth return. Rover 'Landrover' (Diesel) 1958-60.
- 26148 M45G. 12v.; clockwise; earth return. Trojan 25 cwt. 1954-60.
- 26153 M45G. 12v.; clockwise; earth return. Austin Taxi and Hire Car (Diesel) 1959-60; 'Gipsy' (Diesel) 1958-60.
- 26164 M45G. 12v.; clockwise; earth return. Rover 3 litre 1960.
- 26166 M45G. 12v.; clockwise; earth return. Austin 1½ ton Series IVFG and Morris Commercial 1½ ton Series IVFG (2.2 litre engines, Diesel) 1960.
- 26167 M45G. 12v.; clockwise; earth return. Austin 2, 3 and 4 ton Series IVFG and Morris Commercial 2, 3 and 4 ton Series IVFG (3.4 litre engines, Diesel) 1960.
- 26170 M45G. 12v.; clockwise; earth return. Commer ¾ ton Forward Control Van and Passenger Chassis (Diesel) 1960.
- 26175 M45G. 12v.; clockwise; earth return. Bentley 'S2' 1960. Rolls-Royce 'Silver Cloud' II and 'Phantom' V 1960.
- 270468 M45G. 12v.; clockwise; earth return. Morris Commercial 35/40, 45/55, 60/70 cwt., 5 ton Forward Control Tipper, ECV13/3 and CV Models 1946-48; ECV13/5 (Petrol) 1949.
- 270545 M45G. 12v.; clockwise; insulated return. Austin 2/5 ton Petrol Tanker 1946-48.





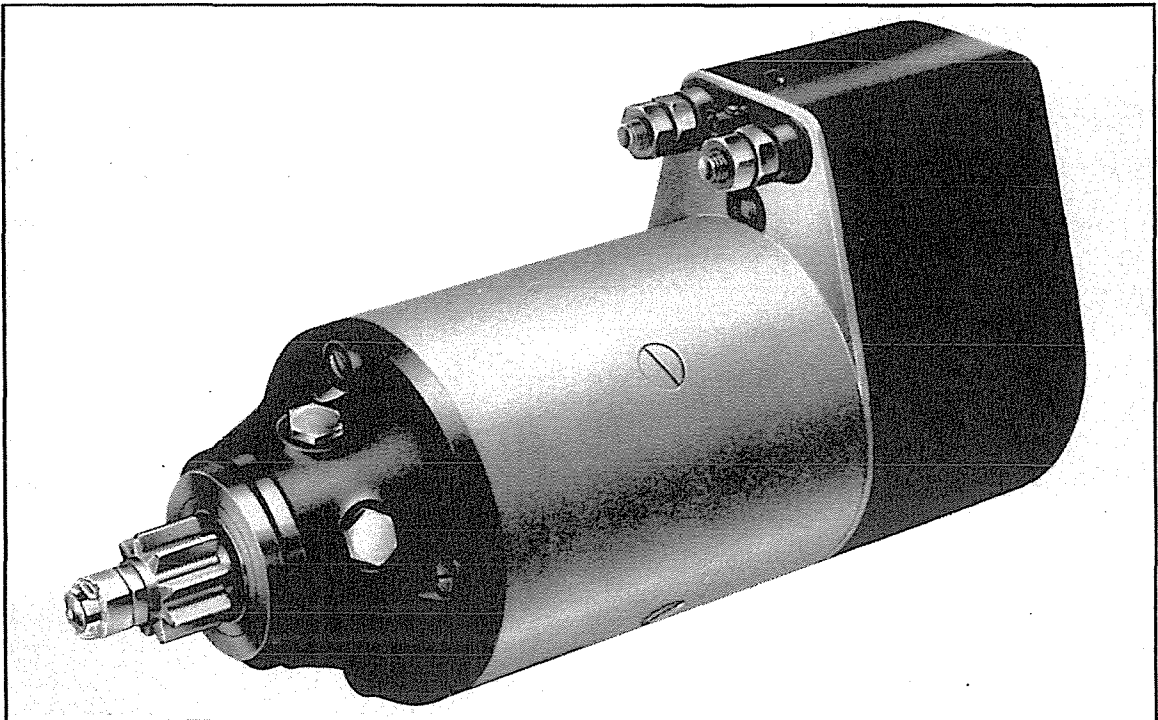


## STARTING MOTORS

### Model Interpretation

BS	Starter with two-step axial engagement and clutch drive.
5	5" diameter yoke.
12 } 24 }	Voltage.
K-L-M-P	Design change letters.
14	Symbol number covering special features.

CA	Starter with co-axial engagement.
45	4½" diameter yoke.
A-C	Design change letters.
12	Voltage.
3	Symbol number covering special features.

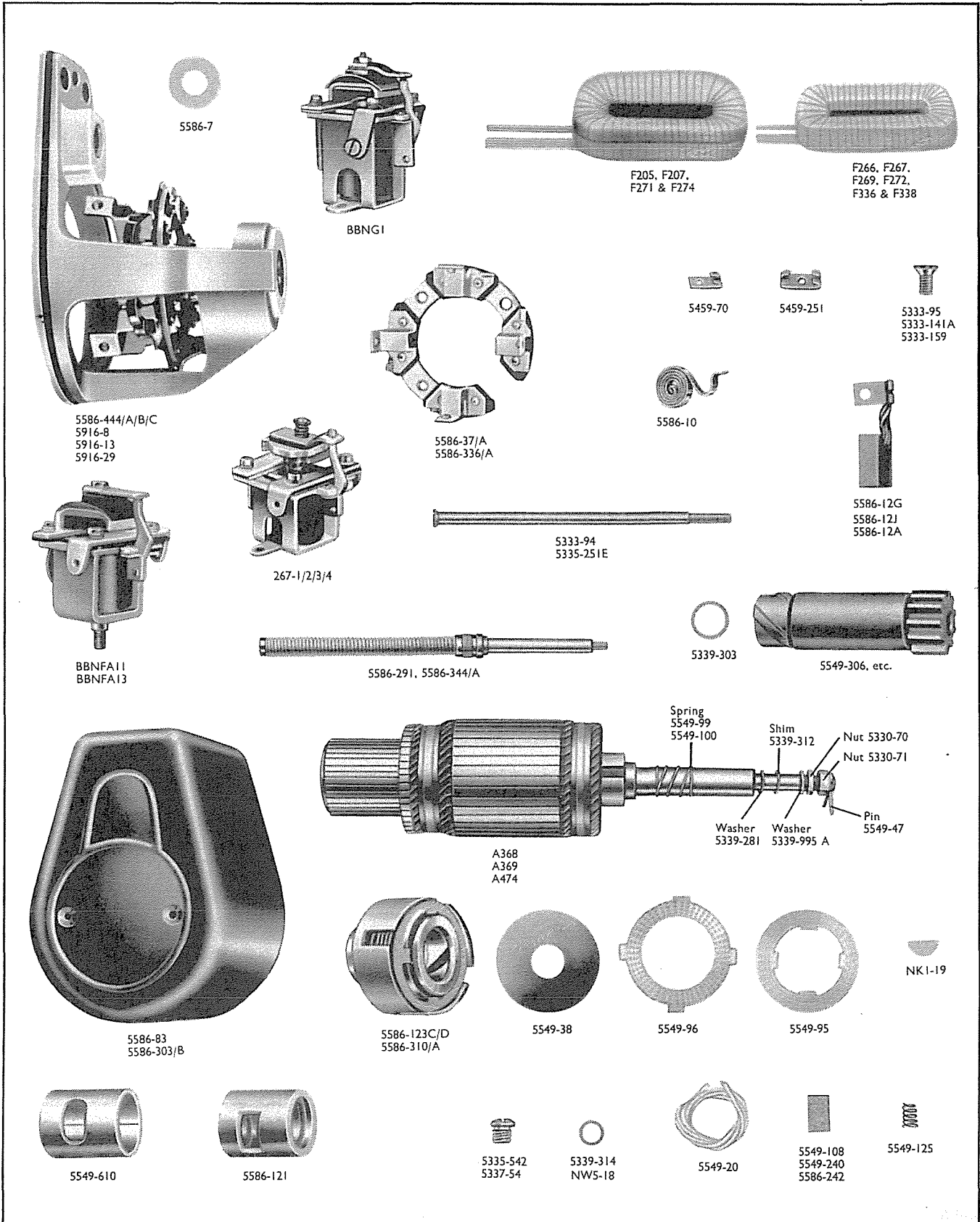


TYPICAL STARTER BS5.. OR SP5..



# C.A.V. STARTING MOTORS

## BS5 and SP5 MODELS



For detailed spare parts, see pages N35-N37

# C.A.V. STARTING MOTORS



## BS512 MODELS

Model .. .. .	BS512M7	BS512L66	BS512M/P66	BS512M67	BS512K/L93	BS512M/P93
Part No. .. .. .	1330070	—	1330660/1	1330670	—	1330930/1
Shield, commutator end, complete ..	5586-444A	5586-444	5586-444	5586-444	5586-444	5586-444
Washer, thrust .. .. .	5586-7	5586-7	5586-7	5586-7	5586-7	5586-7
Switch, solenoid .. .. .	267-1	BBNFA11	267-3	267-3	BBNFA11	267-3
Washer, spring, switch screw .. .. .	5001-31	5001-31	5001-31	5001-31	5001-31	5001-31
Nut, switch fixing .. .. .	—	5330-114A	—	—	5330-114A	—
Screw, switch fixing .. .. .	NS22-14Z1	—	NS22-14Z1	NS22-14Z1	—	NS22-14Z1
Screw, connection .. .. .	NS37-5Z1	NS16-10Z1	NS37-5Z1	NS37-5Z1	NS16-10Z1	NS37-5Z1
Washer, spring, connection screw ..	5244-22	5244-22	5244-22	5244-22	5244-22	5244-22
Washer, plain, connection screw ..	NW3-21T	5279-10	NW3-21T	NW3-21T	5279-10	NW3-21T
Cover, commutator end .. .. .	5586-303	5586-83	5586-303	5586-303	5586-83	5586-303
Screw, cover fixing (K and L) .. .. .	—	NS76-12Y1	—	—	NS76-12Y1	—
Stud, cover fixing (L, M and P) ..	5586-300	5586-300	5586-300	5586-300	5586-300	5586-300
Washer, lock, cover stud .. .. .	NPI-8	NPI-8	NPI-8	NPI-8	NPI-8	NPI-8
Nut, cover stud .. .. .	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1
Screw, solenoid connector .. .. .	—	NS7-6Z1	—	—	NS7-6Z1	—
Washer, spring, connector screw ..	—	5293-39	—	—	5293-39	—
Nut, terminal (K, L and M) .. .. .	5330-79	5330-79	5330-79	5330-79	5330-79	5330-79
Nut, terminal (P) .. .. .	—	—	5330-263	—	—	5330-263
Coils, main .. .. .	F205	F205	F205	F205	F205	F205
Coils, auxiliary .. .. .	F266	F266	F266	F266	F266	F266
Tag, auxiliary coils (L, M and P) ..	5459-251	5459-251	5459-251	5459-251	5459-251	5459-251
Tag, auxiliary coils (K, L, M and P)	5459-70	5459-70	5459-70	5459-70	5459-70	5459-70
Screw, pole (K) .. .. .	—	—	—	—	5333-95	—
Screw, pole (L, M and P) .. .. .	5333-159	5333-159	5333-159	5333-159	5333-159	5333-159
Base, brushgear .. .. .	5586-37	5586-336	5586-336	5586-336	5586-336	5586-336
Screw, brushgear fixing .. .. .	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1
Washer, spring, brushgear screw ..	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57
Brush .. .. .	5586-12G	5586-12G	5586-12G	5586-12G	5586-12G	5586-12G
Screw, brush, short .. .. .	—	—	NS16-11Z1	NS16-11Z1	—	NS16-11Z1
Screw, brush, long .. .. .	—	—	NS16-13Z1	NS16-13Z1	—	NS16-13Z1
Spring, brush .. .. .	NS16-13Z1	NS16-12Z1	NS16-13Z1	NS16-13Z1	NS16-12Z1	NS16-13Z1
Bolt, main fixing .. .. .	5586-10	5586-10	5586-10	5586-10	5586-10	5586-10
Washer, spring, bolt .. .. .	5333-94	5333-94	5333-94	5333-94	5335-251E	5335-251E
Washer, plain, bolt .. .. .	—	—	—	—	5293-57	5293-57
Washer, seal, bolt .. .. .	—	—	—	—	5339-4	5339-4
Pin, split, shaft nut .. .. .	—	—	—	—	5339-270A	5339-270A
Nut, shaft .. .. .	5549-47	5549-47	5549-47	5549-47	5549-47	5549-47
Nut, shaft, castellated .. .. .	5330-70	5330-70	5330-70	5330-70	5330-70	5330-70
Washer, shaft .. .. .	5330-71	5330-71	5330-71	5330-71	5330-71	5330-71
Pinion .. .. .	5339-995	5339-995	5339-995	5339-995	5339-995	5339-995
Washer, felt, pinion .. .. .	5549-306J	5549-306J	5549-306J	5549-306D	5549-306D	5549-306D
Shim, shaft nut .. .. .	—	—	—	—	5339-281	—
Shim, pinion spring .. .. .	5339-312	5339-312	5339-312	5339-312	5339-312	5339-312
Spring, pinion .. .. .	5339-303	5339-303	5339-303	5339-303	5339-303	5339-303
Key, clutch .. .. .	5549-100	5549-100	5549-100	5549-100	5549-100	5549-100
Armature .. .. .	NK1-19	NK1-19	NK1-19	NK1-19	NK1-19	NK1-19
Plate, trip .. .. .	A369	A369	A369	A369	A369	A369
Screw, trip plate .. .. .	5586-68	5586-68	5586-68	5586-68	5586-68	5586-68
Washer, trip plate .. .. .	5333-102	5333-102	5333-102	5333-102	5333-102	5333-102
Plunger, armature .. .. .	5339-316	5339-316	5339-316	5339-316	5339-316	5339-316
Washer, plain, plunger .. .. .	5586-344	5586-344	5586-344	5586-344	5586-344	5586-344
Washer, spring, plunger .. .. .	5339-72A	5339-72A	5339-72A	5339-72A	5339-72A	5339-72A
Nut, plunger .. .. .	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57
Clutch .. .. .	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1
Plate, pressure .. .. .	5586-310	5586-123C	5586-310	5586-310	5586-123C	5586-310
Plate, clutch, brass .. .. .	5549-38	5549-38	5549-38	5549-38	5549-38	5549-38
Plate, clutch, steel .. .. .	5549-96	5549-96	5549-96	5549-96	5549-96	5549-96
Bearing, drive end (K) .. .. .	5549-95	5549-95	5549-95	5549-95	5549-95	5549-95
Bearing, drive end (L, M and P) ..	—	—	—	—	5586-121	—
Plug, oil .. .. .	5549-610	5549-610	5549-610	5549-610	5549-610	5549-610
Washer, oil plug .. .. .	5335-542	5335-542	5335-542	5335-542	5337-54	5337-54
Pad, felt, 20 mm. (L, M and P) ..	5339-314	5339-314	5339-314	5339-314	NW5-18	NW5-18
Pad, felt, 12 mm. (K, L, M and P)	5586-242	5586-242	5586-242	5586-242	5586-242	5586-242
Pad, felt, 14 mm. (K, L, M and P)	5549-108	5549-108	5549-108	5549-108	5549-108	5549-108
Wick, cotton .. .. .	5549-240	5549-240	5549-240	5549-240	5549-240	5549-240
Spring, wick .. .. .	5549-20	5549-20	5549-20	5549-20	5549-20	5549-20
Ring, seal, commutator end shield	5549-125	5549-125	5549-125	5549-125	5549-125	5549-125
Washer, seal, commutator end shield	5586-436	5586-436	5586-436	5586-436	5586-436	5586-436
stud .. .. .	5586-437	5586-437	5586-437	5586-437	5586-437	5586-437

For illustrations, see pages N33-N34



# C.A.V. STARTING MOTORS

## BS524 MODELS

Model . . . . .	BS524K/L60	BS524M/P60	BS524M88	BS524M/P97	BS524M99	BS524M/P101	BS524M/P127
Part No. . . . .	—	1332600/1	1332880	1332970/1	1332990	1333010/1	1333270/1
Shield, commutator end, complete	5586-444B	5586-444B	5586-444B	5586-444B	5586-444B	5586-444C	5586-444B
Washer, thrust . . . . .	5586-7	5586-7	5586-7	5586-7	5586-7	5586-7	5586-7
Switch, solenoid . . . . .	BBNFA13	267-4	267-4	267-4	267-4	267-2	267-4
Washer, spring, switch screw	5001-31	5001-31	5001-31	5001-31	5001-31	5001-31	5001-31
Nut, switch fixing . . . . .	5330-114A	—	—	—	—	—	—
Screw, switch fixing . . . . .	—	NS22-14Z1	NS22-14Z1	NS22-14Z1	NS22-14Z1	NS22-14Z1	NS22-14Z1
Screw, connection . . . . .	NS16-10Z1	NS37-5Z1	NS37-5Z1	NS37-5Z1	NS37-5Z1	NS37-5Z1	NS37-5Z1
Washer, spring, connection screw	5244-22	5244-22	5244-22	5244-22	5244-22	5244-22	5244-22
Washer, plain, connection screw	5279-10	NW3-21T	NW3-21T	NW3-21T	NW3-21T	NW3-21T	NW3-21T
Cover, commutator end . . . . .	5586-83	5586-303	5586-303	5586-303	5586-303	5586-303	5586-303
Screw, cover fixing (K and L)	NS76-12Y1	—	—	—	—	—	—
Stud, cover fixing (L, M and P)	5586-300	5586-300	5586-300	5586-300	5586-300	5586-300	5586-300
Washer, lock, cover stud . . . . .	NPI-8	NPI-8	NPI-8	NPI-8	NPI-8	NPI-8	NPI-8
Nut, cover stud . . . . .	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1
Screw, solenoid connector . . . . .	NS7-6Z1	—	—	—	—	—	—
Washer, spring, connector screw	5293-39	—	—	—	—	—	—
Nut, terminal (K, L and M)	5330-79	5330-79	5330-79	5330-79	5330-79	5330-79	5330-79
Nut, terminal (P) . . . . .	—	5330-263	—	5330-263	—	5330-263	5330-263
Coils, main . . . . .	F207	F207	F207	F208	F207	F207	F207
Coils, auxiliary . . . . .	F267	F267	F267	F269	F267	F267	F267
Tag, auxiliary coils (L, M and P)	5459-251	5459-251	5459-251	5459-251	5459-251	5459-251	5459-251
Tag, auxiliary coils (K, L, M and P)	5459-70	5459-70	5459-70	5459-70	5459-70	5459-70	5459-70
Screw, pole (K) . . . . .	5333-95	—	—	—	—	—	—
Screw, pole (L, M and P) . . . . .	5333-159	5333-159	5333-159	5333-159	5333-159	5333-159	5333-159
Base, brushgear . . . . .	5586-336A	5586-336A	5586-336A	5586-336A	5586-336A	5586-37A	5586-336A
Screw, brushgear fixing . . . . .	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1
Washer, spring, brushgear screw	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57
Brush . . . . .	5586-12A	5586-12A	5586-12A	5586-12A	5586-12A	5586-12A	5586-12A
Screw, brush, short . . . . .	—	NS16-11Z1	NS16-11Z1	NS16-11Z1	NS16-11Z1	NS16-11Z1	NS16-11Z1
Screw, brush, long . . . . .	NS16-12Z1	NS16-13Z1	NS16-13Z1	NS16-13Z1	NS16-13Z1	NS16-13Z1	NS16-13Z1
Spring, brush . . . . .	5586-10	5586-10	5586-10	5586-10	5586-10	5586-10	5586-10
Bolt, main fixing . . . . .	5335-251E	5335-251E	5335-251E	5335-251E	5335-251E	5333-94	5335-251E
Washer, spring, bolt . . . . .	5293-57	5293-57	5293-57	5293-57	5293-57	—	5293-57
Washer, plain, bolt . . . . .	5339-4	5339-4	5339-4	5339-4	5339-4	—	5339-4
Washer, seal, bolt . . . . .	5339-270A	5339-270A	5339-270A	5339-270A	5339-270A	—	5339-270A
Pin, split, shaft nut . . . . .	5549-47	5549-47	5549-47	5549-47	5549-47	5549-47	5549-47
Nut, shaft . . . . .	5330-70	5330-70	5330-70	5330-70	5330-70	5330-70	5330-70
Nut, shaft, castellated . . . . .	5330-71	5330-71	5330-71	5330-71	5330-71	5330-17	5330-71
Washer, shaft . . . . .	5339-995	5339-995	5339-995	5339-995	5339-995	5339-995	5339-995A
Pinion . . . . .	5549-306J	5549-306J	5549-306J	5549-306L	5549-306J	5549-306D	5549-306BS
Washer, felt, pinion . . . . .	5339-281	—	—	—	—	—	—
Shim, shaft nut . . . . .	5339-312	5339-312	5339-312	5339-312	5339-312	5339-312	—
Shim, pinion spring . . . . .	5339-303	5339-303	5339-303	5339-303	5339-303	5339-303	5339-303
Spring, pinion . . . . .	5549-100	5549-100	5549-100	5549-99	5549-100	5549-100	5549-100
Key, clutch . . . . .	NK1-19	NK1-19	NK1-19	NK1-19	NK1-19	NK1-19	NK1-19
Armature . . . . .	A368	A368	A368	A368	A368	A368	A368
Plate, trip . . . . .	5586-68	5586-68	5586-68	5586-68	5586-68	5586-68	5586-68
Screw, trip plate . . . . .	5333-102	5333-102	5333-102	5333-102	5333-102	5333-102	5333-102
Washer, trip plate . . . . .	5339-316	5339-316	5339-316	5339-316	5339-316	5339-316	5339-316
Plunger, armature . . . . .	5586-344A	5586-344A	5586-344A	5586-344A	5586-344A	5586-344A	5586-344A
Washer, plain, plunger . . . . .	5339-72A	5339-72A	5339-72A	5339-72A	5339-72A	5339-72A	5339-72A
Washer, spring, plunger . . . . .	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57
Nut, plunger . . . . .	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1
Clutch . . . . .	5586-123C	5586-310	5586-310	5586-310A	5586-310	5586-310	5586-310
Plate, pressure . . . . .	5549-38	5549-38	5549-38	5549-38	5549-38	5549-38	5549-38
Plate, clutch, brass . . . . .	5549-96	5549-96	5549-96	5549-96	5549-96	5549-96	5549-96
Plate, clutch, steel . . . . .	5549-95	5549-95	5549-95	5549-95	5549-95	5549-95	5549-95
Bearing, drive end (K) . . . . .	5586-121	—	—	—	—	—	—
Bearing, drive end (L, M and P)	5549-610	5549-610	5549-610	5549-610	5549-610	5549-610	5549-610
Plug, oil . . . . .	5337-54	5337-54	5337-54	5337-54	5337-54	5335-542	5335-542
Washer, oil plug . . . . .	NW5-18	NW5-18	NW5-18	NW5-18	NW5-18	5339-314	5339-314
Pad, felt, 20 mm. (L, M and P)	5586-242	5586-242	5586-242	5586-242	5586-242	5586-242	5586-242
Pad, felt, 12 mm. (K, L, M and P)	5549-108	5549-108	5549-108	5549-108	5549-108	5549-108	5549-108
Pad, felt, 14 mm. (K, L, M and P)	5549-240	5549-240	5549-240	5549-240	5549-240	5549-240	5549-240
Wick, cotton . . . . .	5549-20	5549-20	5549-20	5549-20	5549-20	5549-20	5549-20
Spring, wick . . . . .	5549-125	5549-125	5549-125	5549-125	5549-125	5549-125	5549-125
Ring, seal, commutator end shield	5586-436	5586-436	5586-436	5586-436	5586-436	5586-436	5586-436
Washer, seal, commutator end shield stud . . . . .	5586-437	5586-437	5586-437	5586-437	5586-437	5586-437	5586-437

For illustrations, see pages N33-N34

# C.A.V. STARTING MOTORS



## SP5 MODELS

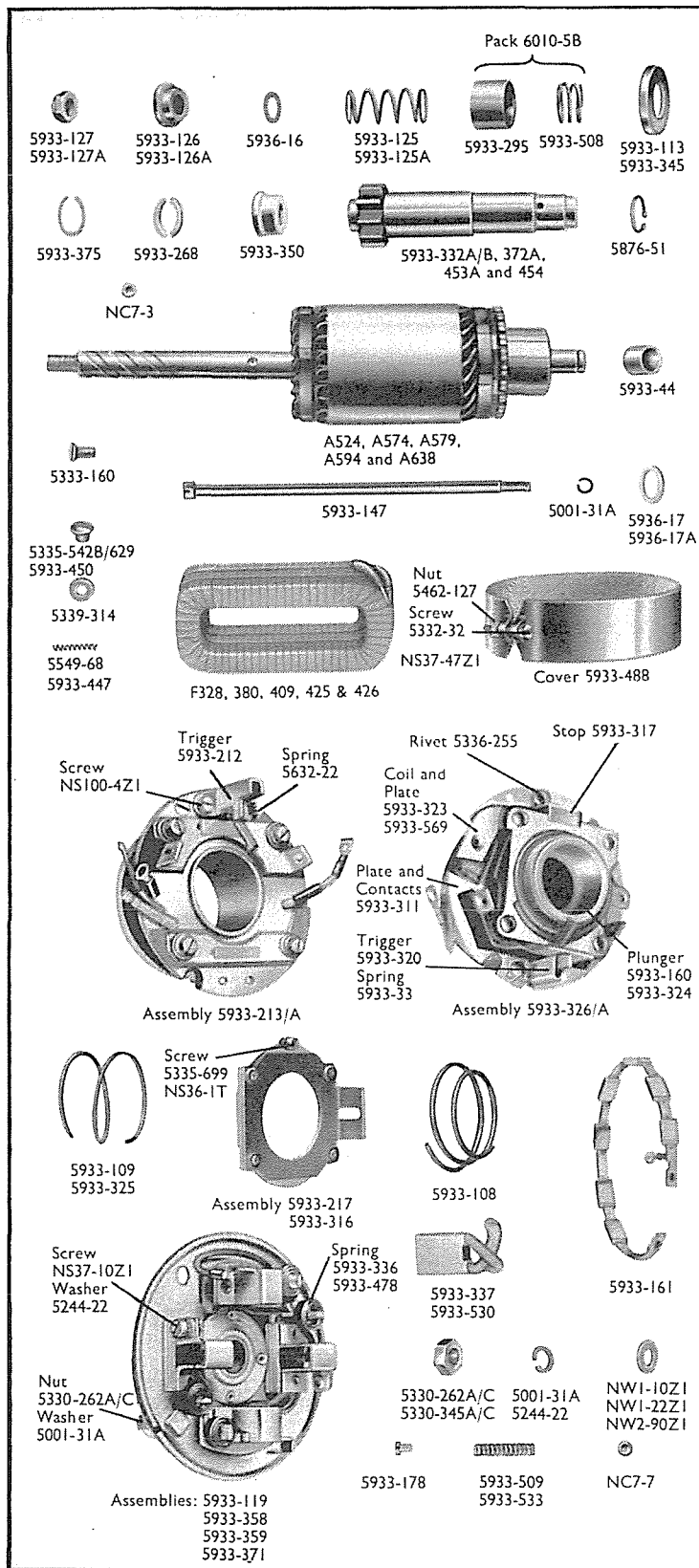
Model .. .. .	SP512-1	SP512A1	SP512-3	SP512A3	SP512B3	SP512A13
Part No. .. .. .	—	1340010	—	1340030	1340031	1340131
Shield, commutator end, complete ..	5916-13	5916-8	5916-13	5916-8	5916-29	5916-8
Washer, thrust .. .. .	5586-7	5586-7	5586-7	5586-7	5586-7	5586-7
Switch, solenoid .. .. .	BBNG1	BBNG1	BBNG1	BBNG1	BBNG1	BBNG1
Washer, spring, switch screw ..	5001-31	5001-31	5001-31	5001-31	5001-31	5001-31
Screw, switch fixing .. .. .	NS53-18Z1	NS53-18Z1	NS53-18Z1	NS53-18Z1	NS53-18Z1	NS53-18Z1
Screw, connection .. .. .	NS16-10Z1	NS16-10Z1	NS16-10Z1	NS16-10Z1	NS16-10Z1	NS16-10Z1
Washer, spring, connection screw ..	5244-22	5244-22	5244-22	5244-22	5244-22	5244-22
Washer, plain, connection screw ..	5279-10	5279-10	5279-10	5279-10	5279-10	5279-10
Cover, commutator end .. .. .	5586-303B	5586-303B	5586-303B	5586-303B	5586-303B	5586-303B
Stud, cover fixing .. .. .	5586-300	5586-300	5586-300	5586-300	5586-300	5586-300
Washer, lock, cover stud .. .. .	NPI-8	NPI-8	NPI-8	NPI-8	NPI-8	NPI-8
Nut, cover stud .. .. .	7095-34A	NU7-11Z1	7095-34A	NU7-11Z1	NU7-11Z1	NU7-11Z1
Nut, terminal .. .. .	5330-79	5330-79	5330-79	5330-79	5330-263	5330-79
Coils, main .. .. .	F271	F271	F274	F274	F274	F274
Coils, auxiliary .. .. .	F272	F336	F272	F338	F338	F338
Tag, auxiliary coils (double) ..	5459-251	5459-251	5459-251	5459-251	5459-251	5459-251
Tag, auxiliary coils .. .. .	5459-70	5459-70	5459-70	5459-70	5459-70	5459-70
Screw, pole .. .. .	5333-141A	5333-159	5333-141A	5333-159	5333-159	5333-159
Base, brushgear .. .. .	5586-37	5586-336	5586-37	5586-336	5586-336	5586-336
Screw, brushgear fixing .. .. .	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1	NS19-12Z1
Washer, spring, brushgear screw ..	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57
Brush .. .. .	5586-12J	5586-12J	5586-12J	5586-12J	5586-12J	5586-12J
Screw, brush .. .. .	NS16-12Z1	NS16-12Z1	NS16-12Z1	NS16-12Z1	NS16-12Z1	NS16-12Z1
Spring, brush .. .. .	5586-10	5586-10	5586-10	5586-10	5586-10	5586-10
Bolt, main fixing .. .. .	5335-251E	5335-251E	5335-251E	5335-251E	5335-251E	5335-251E
Washer, spring, bolt .. .. .	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57
Washer, plain, bolt .. .. .	5339-4	5339-4	5339-4	5339-4	5339-4	5339-4
Washer, seal, bolt .. .. .	5339-270A	5339-270A	5339-270A	5339-270A	5339-270A	5339-270A
Pin, split, shaft nut .. .. .	5549-47	5549-47	5549-47	5549-47	5549-47	5549-47
Nut, shaft .. .. .	5330-70	5330-70	5330-70	5330-70	5330-70	5330-70
Nut, shaft, castellated .. .. .	5330-71	5330-71	5330-71	5330-71	5330-71	5330-71
Washer, shaft .. .. .	5339-995A	5339-995	5339-995	5339-995	5339-995	5339-995A
Pinion .. .. .	5549-306BZ	5549-306L	5549-306J	5549-306J	5549-306J	5549-306CH
Washer, felt, pinion .. .. .	5339-281	5339-281	5339-281	5339-281	5339-281	5339-281
Shim, shaft nut .. .. .	—	5339-312	5339-312	5339-312	5339-312	—
Shim, pinion spring .. .. .	5339-303	5339-303	5339-303	5339-303	5339-303	5339-303
Spring, pinion .. .. .	5549-99	5549-99	5549-100	5549-100	5549-100	5549-100
Key, clutch .. .. .	NK1-19	NK1-19	NK1-19	NK1-19	NK1-19	NK1-19
Armature .. .. .	A474	A474	A474	A474	A474	A474
Plate, trip .. .. .	5586-68	5586-68	5586-68	5586-68	5586-68	5586-68
Screw, trip plate .. .. .	5333-102	5333-102	5333-102	5333-102	5333-102	5333-102
Washer, trip plate .. .. .	5339-316	5339-316	5339-316	5339-316	5339-316	5339-316
Plunger, armature .. .. .	5586-291	5586-344	5586-291	5586-344	5586-344	5586-344
Washer, plain, plunger .. .. .	5339-72A	5339-72A	5339-72A	5339-72A	5339-72A	5339-72A
Washer, spring, plunger .. .. .	5293-57	5293-57	5293-57	5293-57	5293-57	5293-57
Nut, plunger .. .. .	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1	NU7-11Z1
Clutch .. .. .	5586-123D	5586-310A	5586-123C	5586-310	5586-310	5586-310
Plate, pressure .. .. .	5549-38	5549-38	5549-38	5549-38	5549-38	5549-38
Plate, clutch, brass .. .. .	5549-96	5549-96	5549-96	5549-96	5549-96	5549-96
Plate, clutch, steel .. .. .	5549-95	5549-95	5549-95	5549-95	5549-95	5549-95
Bearing, drive end .. .. .	5549-610	5549-610	5549-610	5549-610	5549-610	5549-610
Plug, oil .. .. .	5337-54	5337-54	5337-54	5337-54	5337-54	5337-54
Washer, oil plug .. .. .	5339-314	NW5-18	5339-314	NW5-18	NW5-18	NW5-18
Pad, felt, 20 mm. .. .. .	5586-242	5586-242	5586-242	5586-242	5586-242	5586-242
Pad, felt, 12 mm. .. .. .	5549-108	5549-108	5549-108	5549-108	5549-108	5549-108
Pad, felt, 14 mm. .. .. .	5549-240	5549-240	5549-240	5549-240	5549-240	5549-240
Wick, cotton .. .. .	5549-20	5549-20	5549-20	5549-20	5549-20	5549-20
Spring, wick .. .. .	5549-125	5549-125	5549-125	5549-125	5549-125	5549-125
Ring, seal, commutator end shield	5586-296	5586-436	5586-296	5586-436	5586-436	5586-436
Washer, seal, commutator end shield stud ..	5586-437	5586-437	5586-437	5586-437	5586-437	5586-437

For illustrations, see pages N33-N34



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## CA45 MODELS



Model	CA4512-2 CA45A12-2	CA45C12-2
Part No.	1320020/1	1320023
Locknut, shaft	5933-127	—
Stop, pinion	5933-126	—
Washer, shim, pinion stop	5936-16	—
Clip, spring, pinion sleeve	—	5933-375
Key, set, pinion sleeve	—	5933-268
Sleeve, pinion spring	—	5933-350
Spring, pinion return	5933-125	5933-125
Collar, locking	Use pack 6010-5B	5933-295
Spring, lock	Use pack 6010-5B	5933-508
Collar, trip	5933-113	5933-345
Circlip, trip collar	5876-51	5876-51
Pinion	5933-453A	5933-332A
Ball, steel	NC7-3	NC7-3
Armature	A524	A579
Bearing, drive end	5933-44	5933-44
Screw, pole	5333-160	5333-160
Washer, shim, .008"	5936-17	5936-17
Washer, shim, .004"	5936-17A	5936-17A
Plug, oil	5335-542B	5933-450
Washer, oil plug	5339-314	—
Spring, oil plug	5549-68	5933-447
Bolt, through	5933-147	5933-147
Washer, spring, bolt	5001-31A	5001-31A
Coils, field	F328	F409
Cover band	5933-488	5933-235
Screw, cover band	5332-32	NS37-47Z1
Nut, cover band screw	5462-127	5462-127
Coil unit, with contacts	5933-213	—
Solenoid assembly	—	5933-326
Coil and plate	—	5933-569
Plate, with contacts	—	5933-311
Trigger and guide	5933-212	5933-320
Spring, trigger	5632-22	5933-33
Stop, moving contact	5933-206	5933-317
Rivet, stop	—	5336-255
Screw, stop	NS39-2Z1	—
Plunger	5933-160	5933-324
Spring, contact return	5933-109	5933-325
Moving contact assy.	5933-217	5933-316
Screw	NS36-1T	5335-699
Washer, spring	5293-39	5244-22
Spring, main contact	5933-108	5933-108
Screw, solenoid fixing	NS100-4Z1	5335-637
Resistor	5933-535	5933-161
Commutator end shield assy.	5933-119	5933-359
Spring, brush	5846-478	5933-336
Bush, bearing	5846-54A	5846-54A
Nut, terminal	5330-262A	5330-262C
Washer, spring	5001-31A	5001-31A
Screw, brush	NS37-10Z1	NS37-10Z1
Washer, spring, brush screw	5244-22	5244-22
Brush	5933-530	5933-337
Nut, large terminal	5330-262A	5330-262C
Washer, plain, large terminal	NW2-90Z1	NW1-22Z1
Washer, spring, large terminal	5001-31A	5001-31A
Nut, small terminal	5330-345A	5330-345C
Washer, plain, small terminal	NW1-10Z1	NW1-10Z1
Washer, spring, small terminal	5244-22A	5244-22
Spring, shaft	5933-533	5933-509
Guide, spring	5933-178	—
Ball, steel	NC7-7	NC7-7

# C.A.V. STARTING MOTORS



## CA45 MODELS

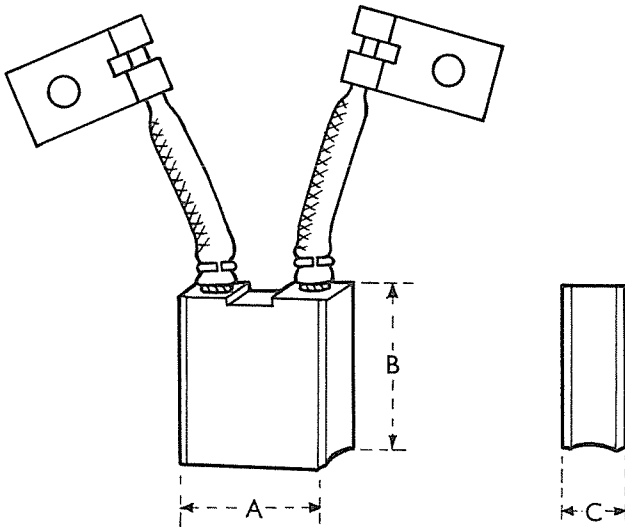
Model .. .. .	CA45A12-3	CA45C12-3	CA45C12-4	CA45A12-6	CA45A12-8	CA45A12-13	CA45C12-13
Part No. .. .. .	1320031	1320033	1320043	1320061	1320080	1320130	1320131
Locknut, shaft .. .. .	5933-127	—	—	5933-127	5933-127	5933-127A	—
Stop, pinion .. .. .	5933-126	—	—	5933-126	5933-126	5933-126A	—
Washer, shim, pinion stop .. .. .	5936-16	—	—	5936-16	5936-16	5936-16	—
Clip, spring, pinion sleeve .. .. .	—	5933-375	5933-375	—	—	—	5933-375
Key, set, pinion sleeve .. .. .	—	5933-268	5933-268	—	—	—	5933-268
Sleeve, pinion spring .. .. .	—	5933-350	5933-350	—	—	—	5933-350
Spring, pinion return .. .. .	5933-125	5933-125	5933-125	5933-125	5933-125	5933-125A	5933-125A
Collar, locking .. .. .	{ Use pack 6010-5B }	5933-295	5933-295	{ Use pack 6010-5B }	{ Use pack 6010-5B }	{ Use pack 6010-5B }	5933-295
Spring, lock .. .. .	{ Use pack 6010-5B }	5933-508	5933-508	{ Use pack 6010-5B }	{ Use pack 6010-5B }	{ Use pack 6010-5B }	5933-508
Collar, trip .. .. .	5933-113	5933-345	5933-345	5933-113	5933-113	5933-113	5933-345
Clip, spring, pinion collar .. .. .	5876-51	5876-51	5876-51	5876-51	5876-51	5876-51	5876-51
Pinion .. .. .	5933-453A	5933-332A	5933-332B	5933-453A	5933-453A	5933-454	5933-372A
Ball, steel .. .. .	NC7-3	NC7-3	NC7-3	NC7-3	NC7-3	NC7-3	NC7-3
Armature .. .. .	A524	A579	A579	A574	A574	A638	A594
Bearing, drive end .. .. .	5933-44	5933-44	5933-44	5933-44	5933-44	5933-44	5933-44
Screw, pole .. .. .	5333-160	5333-160	5333-160	5333-160	5333-160	5333-160	5333-160
Washer, shim, .008" .. .. .	5936-17	5936-17	5936-17	5936-17	5936-17	5936-17	5936-17
Washer, shim, .004" .. .. .	5936-17A	5936-17A	5936-17A	5936-17A	5936-17A	5936-17A	5936-17A
Plug, oil .. .. .	5335-542B	5933-450	5933-450	5335-542B	5335-629	5335-542B	5933-450
Washer, oil plug .. .. .	5339-314	—	—	5339-314	5339-314	5339-314	—
Spring, oil plug .. .. .	5549-68	5933-447	5933-447	5549-68	5549-68	5549-68	5933-447
Bolt, through .. .. .	5933-147	5933-147	5933-147	5933-147	5933-147	5933-147	5933-147
Washer, spring, bolt .. .. .	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A
Coils, field .. .. .	F328	F409	F409	F380	F380	F425	F426
Cover band .. .. .	5933-488	5933-235	5933-235	5933-488	5933-488	5933-488	5933-235
Screw, cover band .. .. .	5332-32	NS37-47Z1	NS37-47Z1	5332-32	5332-32	5332-32	NS37-47Z1
Nut, cover band screw .. .. .	5462-127	5462-127	5462-127	5462-127	5462-127	5462-127	5462-127
Coil unit, with contacts .. .. .	5933-213A	—	—	5933-213	5933-213	5933-213	—
Solenoid assembly .. .. .	—	5933-326A	5933-326	—	—	—	5933-326
Coil and plate .. .. .	—	5933-323	5933-569	—	—	—	5933-569
Plate, with contacts .. .. .	—	5933-311	5933-311	—	—	—	5933-311
Trigger and guide .. .. .	5933-212	5933-320	5933-320	5933-212	5933-212	5933-212	5933-320
Spring, trigger .. .. .	5632-22	5933-33	5933-33	5632-22	5632-22	5632-22	5933-33
Stop, moving contact .. .. .	5933-206	5933-317	5933-317	5933-206	5933-206	5933-206	5933-317
Rivet, stop .. .. .	—	5336-255	5336-255	—	—	—	5336-255
Screw, stop .. .. .	NS39-2Z1	—	—	NS39-2Z1	NS39-2Z1	NS39-2Z1	—
Plunger .. .. .	5933-160	5933-324	5933-324	5933-160	5933-160	5933-160	5933-324
Spring, contact return .. .. .	5933-109	5933-325	5933-325	5933-109	5933-109	5933-109	5933-325
Moving contact assembly .. .. .	5933-217	5933-316	5933-316	5933-217	5933-217	5933-217	5933-316
Screw .. .. .	NS36-1T	5335-699	5335-699	NS36-1T	NS36-1T	NS36-1T	5335-699
Washer, spring .. .. .	5293-39	5244-22	5244-22	5293-39	5293-39	5293-39	5244-22
Spring, main contact .. .. .	5933-108	5933-108	5933-108	5933-108	5933-108	5933-108	5933-108
Screw, solenoid fixing .. .. .	NS100-4Z1	5335-637	5335-637	NS100-4Z1	NS100-4Z1	NS100-4Z1	5335-637
Resistor .. .. .	5933-535	5933-161	5933-161	5933-535	5933-535	5933-535	5933-161
Commutator end shield assembly .. .. .	5933-119	5933-358	5933-359	5933-119	5933-119	5933-119	5933-371
Spring, brush .. .. .	5846-478	5933-336	5933-336	5846-478	5846-478	5846-478	5933-336
Bush, bearing .. .. .	5846-54A	5846-54A	5846-54A	5846-54A	5846-54A	5846-54A	5846-54A
Nut, terminal .. .. .	5330-262A	5330-262C	5330-262C	5330-262A	5330-262A	5330-262A	5330-262C
Washer spring .. .. .	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A
Screw, brush .. .. .	NS37-10Z1	NS37-10Z1	NS37-10Z1	NS37-10Z1	NS37-10Z1	NS37-10Z1	NS37-10Z1
Washer, spring, brush screw .. .. .	5244-22	5244-22	5244-22	5244-22	5244-22	5244-22	5244-22
Brush .. .. .	5933-530	5933-337	5933-337	5933-530	5933-530	5933-530	5933-337
Nut, large terminal .. .. .	5330-262A	5330-262C	5330-262C	5330-262A	5330-262A	5330-262A	5330-262C
Washer, plain, large terminal .. .. .	NW2-90Z1	NW1-22Z1	NW1-22Z1	NW2-90Z1	NW2-90Z1	NW2-90Z1	NW1-22Z1
Washer, spring, large terminal .. .. .	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A	5001-31A
Nut, small terminal .. .. .	5330-345A	5330-345C	5330-345C	5330-345A	5330-345A	5330-345A	5330-345C
Washer, plain, small terminal .. .. .	NW1-10Z1	NW1-10Z1	NW1-10Z1	NW1-10Z1	NW1-10Z1	NW1-10Z1	NW1-10Z1
Washer, spring, small terminal .. .. .	5244-22A	5244-22	5244-22	5244-22A	5244-22A	5244-22A	5244-22
Spring, shaft .. .. .	5933-533	5933-509	5933-509	5933-533	5933-533	5933-533	5933-509
Guide, spring .. .. .	5933-178	—	—	5933-178	5933-178	5933-178	—
Ball, steel .. .. .	NC7-7	NC7-7	NC7-7	NC7-7	NC7-7	NC7-7	NC7-7

For illustrations, see page N38



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## BRUSH CHART



Part No.	Fitted to Models	No. off per set	Dimensions		
			A	B	C
5586-12G	BS512	4	20 mm.	26 mm.	9 mm.
5586-12A	BS524	4	20 mm.	26 mm.	9 mm.
5586-12J	SP512	4	20 mm.	26 mm.	9 mm.
5933-530	CA45A12	4	20 mm.	26 mm.	9 mm.
5933-337	CA45C12	4	20 mm.	26 mm.	9 mm.

## VEHICLE APPLICATION REFERENCE

### 1320020

Bedford TD and TC 4 cylinder 1958.  
Morris Commercial 7 ton Truck and Coach (Diesel) 1958.

### 1320021

Austin 5 and 7 ton and Prime Mover (Diesel) 1958-59.  
Bedford TJ and TC 4 cylinder 1959-60.  
Morris Commercial 5 and 7 ton and Prime Mover (Diesel) 1958-59.

### 1320023

Austin 5 and 7 ton and Prime Mover (Diesel) 1960.  
Bedford 'SB' type Coach and Chassis (Bedford Diesel engine) 1960.  
Morris Commercial 5 and 7 ton and Prime Mover (Diesel) 1960.

### 1320031

Morris Commercial 5 ton Tanker (Diesel) 1959.

### 1320033

Austin 5 and 7 ton Petrol Tanker (Diesel) 1960.  
Morris Commercial 5 and 7 ton Petrol Tanker (Diesel) 1960.

### 1320060

Dodge (Perkins R6 Diesel engine, 12 volt) 1959-60.

### 1320061

Commer 4, 5 and 6 ton Forward Control (Perkins C305 Diesel engine) 1959-60.  
Dodge (Perkins P6 Diesel engine) 1960.  
Karrier 'Gamecock' (Diesel) 1959-60.

### 1320080

Dodge 6 ton 4-speed 1960.

### 1320131

Commer 7 ton Forward Control and 10/12 ton Tractor (Rootes TS3 Diesel engine) 1959-60.

### 1320171

Commer 3/5 and 6 ton 'Superpoise' (Diesel) 1959-60.

### 1330070

Jensen 6 ton 'JNSN' Lightweight 1946-47; Lightweight Commercial Vehicle 1954-55.

### 1330660

Bedford 1/6 ton TA (Diesel) 1953-57.  
Commer 3 and 4 ton Trucks, Pantehnicon, Tipper and 'Commando' Chassis (Diesel) 1947.  
Dodge (Perkins P4 and P6 Diesel engines) 1956-59.

### 1330661

Dodge (Perkins P4 Diesel engine) 1959-60.

### 1330670

Commer 3/5 ton 'Superpoise' (Diesel) 1958; 3/4, 4/5 and 5 ton 'Superpoise' (Diesel) 1950-54.

### 1330930

Commer 3/5 ton 'Superpoise' (Diesel) 1955-57.  
Smiths Delivery Vehicles (Diesel) 1956-58.

### 1332600

Commer 5 ton 'Superpoise' 1954-58; 8 ton Tractor Trailer (Diesel) 1950.

### 1332601

Bedford SBO Coach, SLO Truck and SAO Tractor (Perkins R6 Diesel engine) 1954-56.  
Commer 5 and 6 ton 'Superpoise' (Diesel, 24 volt) 1959-60.

### 1332970

Commer 'Avenger' (Rootes TS3 Diesel engine, 24 volt) 1954-58.

### 1332971

Commer 'Avenger' (Rootes TS3 Diesel engine, 24 volt) 1959-60.

### 1332990

Dodge (Perkins R6 Diesel engine, 24 volt) 1956-58.

### 1333270

Bedford 'S' Type 7 ton Truck, 9, 10 and 12 ton Tractor (24 volt) and 'SB' Type Coach and Chassis (Leyland Diesel engine, 24 volt) 1958.

### 1333271

Bedford 'S' Type 7 ton Truck, 9, 10 and 12 ton Tractor (24 volt) and 'SB' Type Coach and Chassis (Leyland Diesel engine, 24 volt) 1959-60.

### 1333310

Dodge (Leyland 0.350 Diesel engine, 24 volt) 1958.

### 1333311

Dodge (Leyland 0.350 Diesel engine, 24 volt) 1959-60.

### 1340010

Commer 5 and 7 ton Forward Control and Tractor (Rootes TS3 Diesel engine) 1955-58.  
Karrier 'Gamecock' (Diesel) 1957-58.

### 1340030

Bedford 'SB' Type Coach and Chassis (Perkins Diesel engine) 1957-58.  
Morris Commercial 5 ton (Diesel) 1957.

### 1340130

Bedford TD, TJ and TC 6 cylinder 1958.

### 1341131

Bedford 'S' Type 7 ton Truck and 9, 10 and 12 ton Tractors 1958-60; TJ and TC 6 cylinder 1959-60; 'SB' Type Coach and Chassis (Bedford Diesel engine) 1959.

### BS512-L66

Austin 2, 3 and 5 ton Series II Trucks 1949-55.  
Dodge (Perkins P6 Diesel engine) 1951-56.  
Karrier 'Bantam' (Diesel) 1955-56.  
Trojan 1 1/2 cwt. Van (Diesel) 1954-56.

### BS524K-L60

Morris Commercial NVO, NVO12/3 and NVO11/5 1951-55.

### BS524K60

Morris Commercial ECVO13/5 (Diesel) 1949; FVO, FVSO and FVSO12/5 1949-55.

### BS524L88

Dodge (Perkins R6 Diesel engine, 24 volt) 1954-55.

### SP512-1

Karrier 'Gamecock' (Diesel) 1955-56.

### SP512-3

Austin 3/5 ton Series III Trucks and Prime Mover (Diesel) 1956; 7 ton Forward Control Truck (Diesel) 1956-57.

Bedford 'S' Type 7 ton Truck and 9, 10 and 12 ton Tractors 1957.  
Morris Commercial 5 ton (Diesel) 1956.