

# Manifolds & Air Cleaners | 115

iII. No	Part Number	Description	Qty. Req.	Details
	,	II G-AN4, G-AN5, H-AN9, H-AN10 and A-AN10 & Tuning' in Accessories for Performance Part		5)
1	AJM601	GASKET, manifolds	1	
2	GHF261	NUT, brass (manifolds to head)	6	
3	GHF301	WASHER, plain	2	exhaust manifold to head
4	12A1211	WASHER, manifolds to head	4 1	
10	12G583 (*with tapped boss	MANIFOLD, inlet* s for closed circuit breather control valve)	- 1	
11	12H1405	ADAPTOR, breather control valve	1 ]	all 12CC; to
12	1B3664	WASHER, sealing	1	12CE/Da/H3200;
13	12G609	BRACKET, breather control valve	1	from 12CE/Da/H3301
14 15	SH504051 GHF331	SCREW, bracket to manifold WASHER, locking	1 1	to 12CE/Da/H3400.
20	12G1450	MANIFOLD, inlet*	1 1	12CE/Da/H3201 to
		for closed circuit breather control valve)	İ	12CE/Da/H3300;
21	53K1452	SCREW, blanking	1	12CE/Da/H3400 on;
22	2K4954B	WASHER, sealing	1 ]	all 12V units.
25 26	AEA635 ADP210	CORE PLUG PLUG, threaded	2 1	
27	1B3664	WASHER, sealing	1	
28	CHS2620	STUD (carburettor mounting)	4	
29	GHF202	NUT	4	
30	GHF333	WASHER, locking	4	
35	SH504041	SCREW (heater pipe clip to inlet manifold)	1 ]	to 1200/Do/U2/20
36 37	GHF331 GHF300	WASHER, locking WASHER, plain	1 1	to 12CC/Da/H3628.
40	TE504081	STUD	1 ]	heater pipe clip to inlet manifold
41	GHF200	NUT	1	12CC/Da/H3629 on;
42	GHF331	WASHER, locking	1 ]	all 12CE and 12V.
45	12G297	SLEEVE (inlet manifold to head)	2	
50 51	12G420 12G1581	MANIFOLD, exhaust MANIFOLD, exhaust	1 1	all G-AN4; up to G-AN5-139772 G-AN5-139773 on.
52	53K507	STUD (exhaust manifold to down pipe)	3	G-ANJ-137773 UII.
53	GHF261	NUT, brass	3	
54	12A1211	WASHER, plain	3	
55	GHF332	WASHER, locking	3	
127	75 Air Cleaners	& Heat Shields		
60	AHA8419	AIR CLEANER ASSEMBLY, front	1	
61	AHA8420	AIR CLEANER ASSEMBLY, rear	1	
62	GFE1004	ELEMENT, air cleaner	2	
63	BH505361	BOLT (air cleaner to carburettor)	4	
64 65	GHF332 GHF301	WASHER, locking	4 4	
66	ACA8014	WASHER, plain GASKET (air cleaner to carburettor)	2	
67	GHF222	NUT, nyloc (air cleaner straps)	1	
69	PWZ205	WASHER, plain	1	
	12G485	HEATSHIELD, carburettors	1	to Dec approx.1967
76 77	12G1460	HEATSHIELD, carburettors GASKET*	1 6	from approx. Dec 1967
77	1G2624 (*manifold to heat	Shield and heatshield to insulating block & in		block to carburettor)
78	AEA586	INSULATING BLOCK	2 ]	,
80	AEG557	BRACKET, heatshield, front	1	
81	AEG558	BRACKET, heatshield, rear	1	
82 83	SH604051	SCREW, bracket to heatshield NUT	2 2	
ა 84	GHF200 GHF331	WASHER, locking	2	
85	SH604071	SCREW (front bracket to timing cover)	1	
86	GHF200	NUT	1	from approx. Dec 1967
87	GHF331	WASHER, locking	1	
88 90	GHF300	WASHER, plain	1	
89 90	BH605151 GHF222	BOLT (rear bracket to engine back plate) NUT, nyloc	1	
91	GHF301	WASHER, plain	i	
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# **Under Bonnet Decals**

In many sections of this catalogue may be found information on engraved or printed plates and decals applied to components and cars when they were manufactured. As a delightful finishing touch to a painstaking restoration they are unsurpassed; much research has been put in by the people who now reproduce these items to ensure total accuracy. With MG & Austin Healey being amongst the most comprehensively served marques in the classic car parts market place, just about every decal or plate your car was fitted with has now been reproduced - for example, the 'Coopers' transfers and decals for 1275 air cleaner assemblies.

CRTR202A	TRANSFER, 'Coopers', front air box	1 ]	
CRTR202B	TRANSFER, 'Coopers', rear air box	1 ] to	арргох. 1971
CRST119	DECAL, 'Unipart' (both air boxes)	2 fro	m approx. 1971

ill.	Part Number	Description	Qty.	Details
No			Req.	
150	0 Manifolds	'all G-AN6 models)		
	AJM681	GASKET, manifolds	1	
102	DS2512	ROLL PIN (locating inlet manifold)	2	
103	058258	CLAMP, small	4	on upper mounting studs
104	WP20X	WASHER, plain	6 1	on upper & lower outer
105	100498	NUT	6	mounting studs
106	137845	CLAMP, large	2 ]	on lower inner
107	WP20X	WASHER, plain	2	mounting studs
108	CHA360	NUT	2 ]	
110	RKC723	MANIFOLD, inlet	1	
111	122132	BLANKING PLUG	1	
112	WF513	WASHER, fibre	1	
113	SH505101	SCREW (carb & heat shield to manifold)	4	
114	GHF332	WASHER, locking	4	
	CHA256	MANIFOLD, exhaust	1	
1	WF8	WASHER, locking	2	
1	BH505131	BOLT (exh manifold to inlet manifold)	2	
	GHF106	BOLT (exh manifold to down pipe)	3	
	GEG742	GASKET (manifold to down pipe)	1	
	GHF333	WASHER, locking	3	
	CHA471	NUT, special	3	
	ADP212	PLUG, exhaust manifold	1	
128	AEC699	WASHER, sealing	1	
150	Air Claanar	s and Heat Shields		
	TKC1570	AIR BOX ASSEMBLY, 'Rover Triumph'	1	to late 1978
130	RKC4165	AIR BOX ASSEMBLY, 'BL Cars'	1	from late 1978
131	141648	SEAL, back plate	1	Hom late 1770
	12G2125	GASKET	4	
	GFE1063	AIR FILTER	2	
	GHF332	WASHER, locking	4	
	BH505181	BOLT (air box to carburettors)	4	
	623313	CLIP (Pipe)	1	for 'Rover Triumph' air box
	626960	CLIP (Pipe)	1	for 'BL Cars' air box
137	SH604041	SCREW	1	
138	GHF331	WASHER, locking	1	
139	GHF300	WASHER, plain	1	
140	616014	AIR HOSE (23.5" long)	2 ]	
141	PCR2409	CLIP, hose to front panel	2	
142	BHH1719	SCREW (hose clips to front panel platform)	1	from approx. 1976
143	GHF331	WASHER, locking	1	
	GHF300	WASHER, plain	1 ]	
	CHA501	HEATSHIELD, carburettors	1 ]	
146	UKC2992	GASKET*	4	to mid 1977
		(*carb to heatshield & heatshield to manifold,	) ]	
	UKC8372	HEATSHIELD, carburettors	1 ]	from mid 1977
		(does not require gaskets)	J	

# Using Sports Air Filters & Exhausts

In the Accessories section you will find &N Sports air filters & Sports Exhausts that are intended to provide easy, cost effective improvements to the performance of your car. The accent is on 'intended', because on a large number of vehicles so fitted, the only positive improvement is to the appearance of the engine bay. In fact, if the knock on effects of these potentially more efficient parts have not been recognised and the appropriate steps taken, the result may be a car which doesn't 'go any faster' but uses more fuel and runs badly.

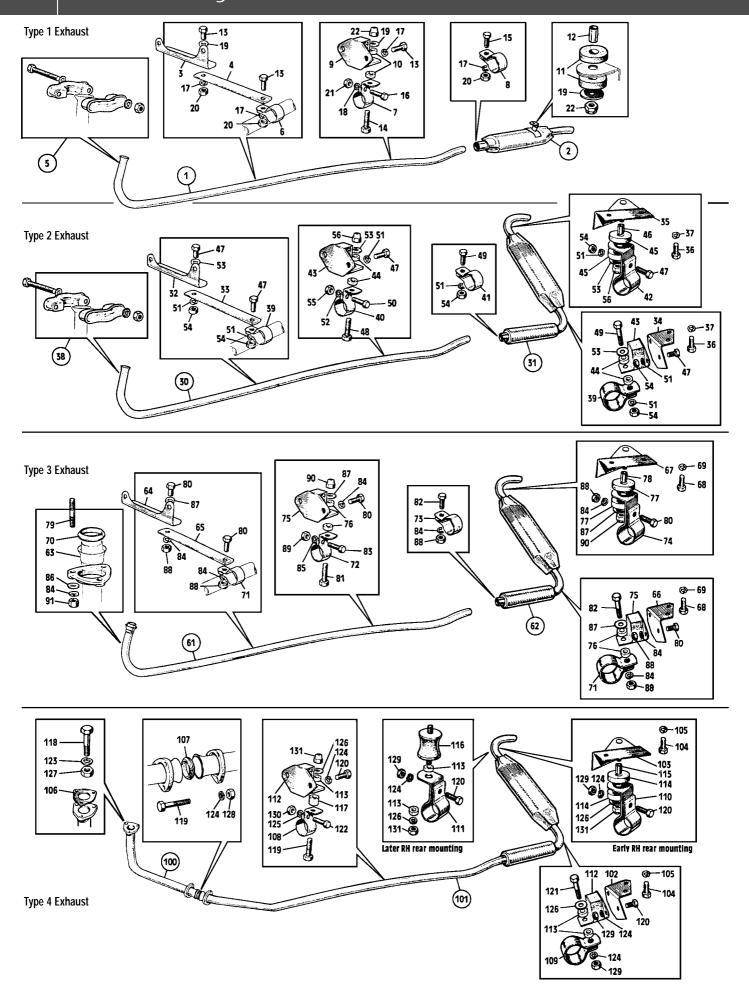
As any engine tuning guru will relate, the majority of modifications are based around the principle of increasing As any engine uning durd with reader, the importing in indications are based around the principles on incleasing power by getting better gas flow through the engine; more fuel/air charge enters, while the exhaust gases can leave more easily, creating a better 'scavenge' effect to help to draw the new charge into the cylinders. Given better than standard gas flow through the use of (say) K&N air filters and maybe a tubular exhaust manifold, the carburettors will need tweaking to ensure that the fuel/air ratio of the charge remains correct. Potentially increased air flow into the system results in a need for a corresponding increase in fuel, otherwise the engine will run lean (causing poor economy, rough running or more detrimental effects on the pistons & valves).

In order to increase the fuel flow to match the air flow, simply winding down the jet nut on the carburettor by a few flats is usually not sufficient. A change of carburettor needle to one with a richer profile is required; only then can the fine adjustment be carried out on the carburettor to find its optimum setting. Suggestions for nonstandard carburettor needles are given here (needles are sold individually, by the way, plus you will need to know on 1275cc cars whether your carburettors use fixed or biased/sprung needles). If you wish to experiment, the needle chart booklet (ALT9001), detailing the full range of SU needles and their profiles, would be very useful.

1275	models
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Z/J IIIUUCIS			
AUD1242	NEEDLE, fixed type H6	2 ]	K&N filters
CUD1012	NEEDLE, biased type AAN	2	
AUD1242	NEEDLE, fixed type H6	2 ]	K&N filters & exhaust
CUD1014	NEEDLE, biased type AAQ	2 ]	
CUD1014	NEEDLE, biased type AAQ	2	K&N filters
ALT9001	BOOKLET, needle chart	a/r	
500 Models			
CUD1011	NEEDLE, biased, type AAM	2	K&N filters & exhaust
ALT9001	BOOKLET, needle chart	a/r	

# 116 Exhaust System



ill. Part Number	Description	Qty.	Details
No		Req.	

# Type 1: 1275 'Single Box' System.

RHD Specification, 1967-69 (G-AN4; H-AN9)

UK cars used a 'single box' system with flared front pipe from 1967 to 1969 inclusive. However, a few cars in this period had the 'cross box' (Type 2) system, particularly near the end of 1969.

unsp	verioù riau ure cros	s bux (Type 2) system, particularly near the er	IU UI 1707.
1	GEX1306	FRONT PIPE	1
2	GEX3365	SILENCER	1
3	GEX7153	BRACKET, gearbox	1
4	GEX7154	STRAP, bracket to front pipe	1
	HMP815003	FITTING KIT, type 1 system	1
5	GEX7049	CLAMP, manifold to front pipe	1
6	GEX7072	CLAMP, front pipe to strap	1
7	GEX7073	CLAMP, intermediate mounting	1
8	GEX7074	CLAMP, system joint	1
9	GEX7155	MOUNTING, intermediate	1
10	GEX7250	WASHER, insulation	2
11	GEX7151	BUSH, rubber	2
12	GEX7152	DISTANCE TUBE	1
13	SH605071	SCREW (5/16" UNF x 7/8")	4
14	SH605101	SCREW (5/16" UNF x 1 1/4")	1
15	SH605121	SCREW (5/16" UNF x 1 1/2")	1
16	SH604071	SCREW (1/4" UNF x 7/8")	1
17	GHF332	WASHER, locking (5/16")	5
18	GHF331	WASHER, locking (1/4")	1
19	PWZ205	WASHER, plain (5/16")	3
20	GHF201	NUT (5/16" UNF)	3
21	GHF200	NUT (1/4" UNF)	1
22	GHF222	NUT, nyloc (5/16" UNF)	2

#### Type 2: 1275 'Cross Box' System.

Non-North American LHD Specification, 1967-72 (G-AN4; up to G-AN5-139136; H-AN9)

RH Steering Specification, 1970-72 (G-AN5-74886 to 139136; H-AN10; A-AN10).

The 'cross box' system with flared front pipe to manifold joint was used on European cars between '67 and '72 inclusive (only Midgets from '70: Sprite exports ceased in '69). It was used on UK cars from '70 to '72.

Inciu	isive (only ivilagets l	rom 70; Sprile exports ceased in 69). It was	s usea on	TUK CATS IFORT 70 to 72.
30	GEX1306	FRONT PIPE	1	
31	GEX3369	RESONATOR & SILENCER	1	
32	GEX7153	BRACKET, gearbox	1	
33	GEX7154	STRAP, bracket to front pipe	1	
34	GEX7168	BRACKET, LH rear mtg. to boot floor	1 ]	G-AN4; to G-AN5-138800;
35	GEX7169	BRACKET, RH rear mtg. to boot floor	1 ]	H-AN9; H-AN10; A-AN10.
	GEX7364	BRACKET, LH rear mtg. to boot floor	1 ]	G-AN5-138801
	GEX7365	BRACKET, RH rear mtg. to boot floor	1 ]	& future
36	SH605051	SCREW, brackets to boot floor	4	
37	GHF332	WASHER, locking	4	
	HMP815004	FITTING KIT (type 2 system)	1	
38	GEX7049	CLAMP (manifold to front pipe)	1	
39	GEX7072	CLAMP	2	pipe to strap/LH rear mounting
40	GEX7073	CLAMP (intermediate mounting)	1	
41	GEX7074	CLAMP (system joint)	1	
42	GEX7170	CLAMP (pipe to RH rear mounting)	1	
43	GEX7155	MOUNTING (intermediate/LH rear)	2	
44	GEX7250	WASHER, insulation	4	
45	GEX7151	BUSH, rubber	2	
46	GEX7152	DISTANCE TUBE	1	
47	SH605071	SCREW (5/16" UNF x 7/8")	7	
48	SH605101	SCREW (5/16" UNF x 1 1/4")	1	
49	SH605121	SCREW (5/16" UNF x 1 1/2")	2	
50	SH604071	SCREW (1/4" UNF x 7/8")	1	
51	GHF332	WASHER, locking (5/16")	9	
52	GHF331	WASHER, locking (/4")	1	
53	PWZ205	WASHER, plain (5/16")	4	
54	GHF201	NUT (5/16" UNF)	7	
55	GHF200	NUT (1/4" UNF)	1	
56	GHF222	NUT, nyloc (5/16" UNF)	2	

# Type 3: 1275 'Cross Box' System

RHD and Non-North American LHD Specification, 1973-74 (G-AN5-139137 on).

This cross box system, only fitted to Midgets, used a three stud flanged manifold joint on the front pipe. Type 3 is available as a one piece exhaust system as well as components.

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	GEX142	EXHAUST ASSEMBLY	1	one piece system
61	GEX1307	FRONT PIPE	1	
62	GEX3369	RESONATOR & SILENCER	1	
63	ARH1806	FLANGE, front pipe	1	
64	GEX7153	BRACKET, gearbox	1	
65	GEX7154	STRAP (bracket to front pipe)	1	
66	GEX7364	BRACKET, LH	1	rear mounting
67	GEX7365	BRACKET, RH	1	to boot floor

ill. No	Part Number	Description	Qty. Req.	Details
68	SH605051	SCREW, brackets to boot floor	4	
69	GHF332	WASHER, locking	4	
	HMP815005	FITTING KIT, type 3 system	1	
70	GEX7193	OLIVE (front pipe to manifold)	1	
71	GEX7072	CLAMP	2	pipe to strap/LH rear mounting
72	GEX7073	CLAMP (intermediate mounting	1	
73	GEX7074	CLAMP (system joint	1	
74	GEX7170	CLAMP (pipe to RH rear mounting	1	
75	GEX7155	MOUNTING (intermediate/LH rear	2	
76	GEX7250	WASHER, insulation	4	
77	GEX7151	BUSH, rubber	2	
78	GEX7152	DISTANCE TUBE	1	
79	53K507	STUD, manifold	3	
80	SH605071	SCREW (5/16" UNF x 7/8")	7	
81	SH605101	SCREW ( 5/16" UNF x 11/4")	1	
82	SH605121	SCREW (5/16" UNF x 11/2")	2	
83	SH604071	SCREW (1/4" UNF x 7/8")	1	
84	GHF332	WASHER, locking (5/16")	12	
85	GHF331	WASHER, locking (1/4")	1	
86	12A1211	WASHER, special (manifold stud)	3	
87	PWZ205	WASHER, plain (5/16")	4	
88	GHF201	NUT (5/16" UNF)	7	
89	GHF200	NUT (1/4" UNF)	1	
90	GHF222	NUT, nyloc (5/16" UNF)	2	
91	GHF261	NUT, brass	3	

#### Type 4: 1500 'Cross Box' System.

DOWN PIPE

RHD Specification, 1975-79 (G-AN6).

100 GEX1618

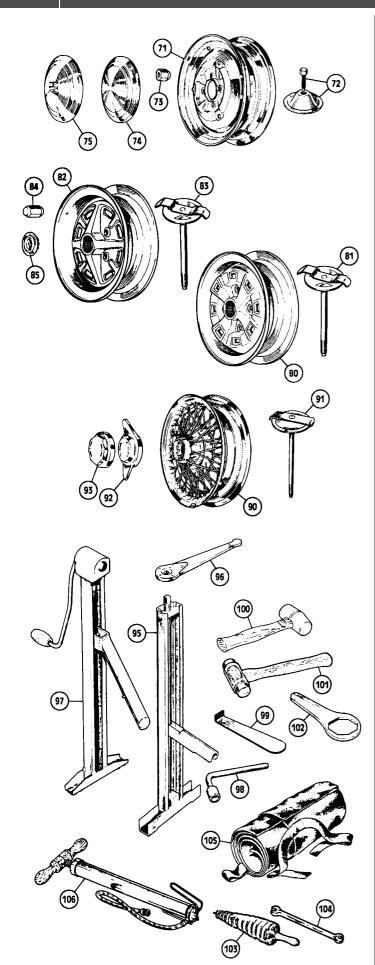
Minor changes occurred on the rear part of the system at G-AN6-200001 and the silencer mounting changed at G-AN6-169792 (note that there is a choice of fitting kits).

ı	100	GEX1618	DOWN PIPE	- 1		
	101	GEX164	REAR PIPE (with resonator & silencer)	1		to G-AN6-200000.
		GEX175	REAR PIPE (with resonator & silencer)	1		from G-AN6-200001
	102	GEX7364	BRACKET, LH rear mtg. to boot floor	1		
	103	GEX7365	BRACKET, RH rear mtg. to boot floor	1		to G-AN6-169791
	104	SH605051	SCREW (bracket to boot floor)	4/2	1	Oty. decreases from
	105	GHF332	WASHER, locking	4/2	]	G-AN6-169792 on.
		HMP815006	FITTING KIT, type 4 system	1	1	to G-AN6-169791
			(includes items marked *)		]	
		HMP815007	FITTING KIT, type 4 system	1	1	from G-AN6-169792
			(includes items marked †)		]	
	106	GEG742	GASKET *†, manifold to down pipe	1		
	107	GEX7470	OLIVE *†, down pipe to rear pipe	1		
	108	GEX7073	CLAMP *†, intermediate mounting	1		
	109	GEX7072	CLAMP *†, pipe to LH rear mounting	1		
	110	GEX7170	CLAMP *, pipe to RH rear mounting	1		
	111	GEX7468	CLAMP †, pipe to RH rear mounting	1		
	112	GEX7155	MOUNTING *†, intermediate/LH rear	2		
	113	GEX7250	WASHER *†, insulation	3/5		* uses 3; † uses 5.
	114	GEX7151	BUSH *, rubber	2		
	115	GEX7152	DISTANCE TUBE *	1		
	116	GEX7251	MOUNTING †, RH (clamp to boot floor)	1		
	117	CHA364	SPACER *†	1		
	118	GHF106	BOLT *†, (3/8" UNF x 11/2")	3		
	119	BH605151	BOLT *†, (5/16" UNF x 17/8")	4		
	120	SH605071	SCREW *†, (5/16" UNF x 3/4")	5		
	121	SH605121	SCREW *†, (5/16" UNF x 11/2)"	1		
	122	SH604071	SCREW *†, (1/4" UNF x 7/8")	1		
	123	GHF333	WASHER *†, (locking, 3/8")	3		
	124	GHF332	WASHER *†, (locking, 5/16")	9		
	125	GHF331	WASHER *†, (locking, 1/4")	1		
	126	PWZ205	WASHER *†, (plain)	3		
		CHA471	NUT *†, (special)	3	1	manifold to
		AHH8382	NUT *†, (special)	3	]	down pipe
		GHF201	NUT *†, (5/16" UNF)	4		
	130	GHF200	NUT *†, (1/4" UNF)	1		
	131	GHF222	NUT *†, nyloc (5/16" UNF)	2		

# **Investing For The Future**

If, like most classic car owners, you insist on carefully fitting your own exhaust instead of paying the local exhaust centre to throw it nonchalantly under the car for you, remember three little details.

Use a dab of exhaust assembly paste on each of the system joints, and smear a little anti-seize compound on the threads of all nuts and bolts, leaving them all a bit loose until you're sure the system is in exactly the right place. In fact, the second recommendation is valid for all nuts & bolts fitted on the car: suspension, steering or whatever (just don't get grease on the brake surfaces, that's all!). You will appreciate it when you're lying on your back on the cold garage floor trying to undo them, some time in the future.



	Part Number	Description	Qty. <i>Details</i>
No			Ren

#### Road Wheels & Tools

See also 'Exterior Trim' in Accessories for Sports Road Wheels.

# Steel Road Wheel, Standard Equipment 1967-1969

(G-AN4; H-AN9

7	71	AHA6455	ROAD WHEEL, steel (3.5" x 13")	5	
7	72	24A1032	CLAMP (spare wheel to boot floor)	1	
7	73	88G322	NUT, wheel	16	
7	74	AHA5660	HUB CAP ('embellisher'), plain	4	G-AN4.
7	75	2A8055	HUB CAP ('embellisher'), 'AH' motif	4	H-AN9.

### Steel Road Wheel, Standard Equipment 1970 on

(G-AN5; G-AN6; H-AN10; A-AN10)

80	AHA8892	WHEEL, steel, 'Rostyle' (4.5J x 13")	5	to G-AN5-105500;
81	AHA8914	CLAMP, spare wheel to boot floor	1.	H-AN10; A-AN10
82	AHA9881	WHEEL, steel, 'Rostyle' (4.5J x 13")	5	G-AN5-105501 on;
83	AHA9940	CLAMP (spare wheel to boot floor)	1.	G-AN6
84	AHA8785	NUT, wheel	16	chrome finish
	AHA8785SS	NUT, wheel	16	stainless steel
85	ΔΗΔ8950	CENTRE CAP wheel	4	

### Wire Road Wheel, Optional Equipment 1967-1976

(All models up to G-AN6-166300 approx.)

90	AHA63//	WHEEL	, wire, 4J x 13"	(aluminium	) 5	silver painted	tinish
	AHA9524*	WHEEL	, wire, 4J x 13"	(chrome)	5		
	*This option was	anly aver	offered by the fo	ectory in the	North American	market place	ctrango t

\*This option was only ever offered by the factory in the North American market place, strange though it may seem. However, chrome wire wheels are now of course widely available.

91	AHA6664	CLAMP (spare wheel to boot floor)	1
92	AHA7373*	'SPINNER', wire wheel, two eared, RH	2
	AHA7374*	'SPINNER', wire wheel, two eared, LH	2
93	88G606*	'SPINNER', wire wheel, octagonal, RH	2
	88G607*	'SPINNER', wire wheel, octagonal, LH	2

\*Octagonal spinners were historically fitted to cars bound for market places where safety regulations stipulated that eared spinners could not be used. However, from the 1969 model year onwards, UK ('Home Market') cars were also fitted with them. A number of owners prefer the eared spinner to the octagonal type and retro-fit them to later cars; if you are thinking of doing the same, it is recommended that you consult your local legislations first, to ensure approval at the car's next roadworthiness test.

#### Tools

95	BHA4964	JACK ASSEMBLY	1 ]	G-AN4; G-AN5;
96	13H6692	HANDLE, ratchet	1 ]	H-AN9; H-AN10; A-AN10
97	BHA5329	JACK ASSEMBLY	1	G-AN6
98	2A5626	WHEEL BRACE	1 ]	steel wheels only
99	11H1686	LEVER, hub cap (early wheels only)	1 ]	
100	88G329	HAMMER, lead (alternative)	1 ]	
101	C27290	HAMMER, copper/hide (alternative)	1	
102	AHH5839	SPANNER (for octagonal spinners)	1	wire wheels only
103	GAC4089	BRUSH, spoke cleaning	1	
104	MM385-800	SPANNER (spoke nipple adjusting)	1 ]	
105	AHA5506	TOOL BAG	1	
106		TYRE PUMP (original style)	NCA	

# Jacking Up The Car

If there is any doubt concerning the structural rigidity of the bodywork close to the jacking point, do not use the side jack to raise the car. Apart from the safety aspect, the resultant distortions in the sill panel caused by the area above the jacking point hole taking the weight of the car will be most unsightly.

An alternative tool to keep in the boot for lifting the car is a scissor jack, which unlike most bottle jacks will fit under any part of the car you wish to raise.

The best places to use a scissor jack are under one of the front chassis rails, or under the front mounting bracket of one of the rear springs. It would also help to have a pressed steel wheel chock to hand, as supplied in the tool kit of most British Leyland and Rover Group cars from the end of the 1970's onwards.

### Wire Wheel Splines

If you run a wire wheel fitted car and under heavy acceleration or braking you can hear a sharp knock (rather like halves of coconut shells being clapped), either a spinner is slightly loose, or the splines holding a wheel to its hub are dry and need greasing. Before applying grease, inspect both the wheel and the hub; if the splines are sharp rather than having slightly radiused peaks, then the wheel or hub - preferably both - need replacing. Note that old wheel splines will quickly wear new hub splines and vice versa.

# "So You Think You've Got Wobbly Wire Wheels"

(By Pete Cox) (Yes we know, he's a TR man)

Back in the good old days when Pete Buckles and myself were young lads, we were able to buy virtually direct from Dunlop, so the wire wheels were inexpensive. These British made wheels were sold mostly to the TR Register members at insanely low prices. 4.5" x 60 spoke wire wheels went out at £4.10.0dl, with no VAT to pay and we still made a pound on each wheel!



The low prices enabled me to indulge in experiments: if they didn't work (or fit), offending wheels would always be 'sold on' and a couple of 'bob' profit could still be made.



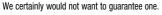
Bear in mind that the wheel is capable of being flexed by 4"... it is then supposed to return to

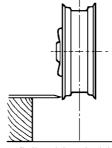
So my TR2, an attractive beast wearing glistening Midnight Blue paint work and not so glistening (but by then typical), rusty quarter panels, finalised it's development with the unusual combination of 6" Cobra wheels at the front and, 5.5" TR6 wheels at the rear. This was because the TR2 was always enthusiastically driven and the growing pile of Lockheed half shafts finally stopped growing the day a second hand TR4 rear axle was installed, its extra width requiring the above wheel combination to balance its cornering habits.

Now, wire wheels are built to flex (or bend), this was brought shockingly home to me on one occasion when Pete Buckles visited me in Birmingham (remember Clapgate Lane?). We were off to visit a supplier (who incidentally, still stamps out trunnion blanks for Moss). Pete's TR3 followed my TR2 down an interestingly twisty road which I happened to

know particularly well, and after exiting a seriously exciting corner I looked in the mirror to check on the progress of our illustrious leader, and was horrified to see his car in a lurid slide (he maintained it was under control) with its outside front wheel keeling over at a crazy angle, almost 60° off vertical. This memory has remained vivid ever since, and is one explanation why Moss Europe (formerly Cox & Buckles) do not sell second hand or reconditioned wire wheels.

If it is assumed that both hub & rim of a wire wheel are in good condition, it may well be worth having the wheel re-spoked 'as necessary' and then trued up by a competent re-builder. The wheel will probably need shot blasting and stove enamelling which will bring the cost to near to (or possibly over) the price of a new wheel. Remember also that you have got a used, worn wheel, not a nice new one. Bear in mind then, that the wheel is capable of being flexed by 4" (i.e., the hub is fixed and the top of the wheel is 4" further out than the bottom), while it is rotating at speed on the road, and then, it is supposed to return to the original shape. NOW decide if you still want the wheel re-built!





Checking vertical runout by spinning

Slight sideways run-out (or 'out of true') with wire wheels is therefore not significant: a couple of hard corners will soon re-arrange the wheel spokes anyway. Vertical 'run out' should not be permitted, ever. By far the most common cause of wire wheel 'wobbles' is an incorrect method employed in balancing. A simple spirit level balancer is the thing to seek out. Under no circumstances should balancing be attempted on the now common dynamic machine without the use of the special sprung cones shown in the illustration, because, although the wheel locates correctly on its inner coned surface, these machines 'try' and locate onto the inside of the wire wheels outer flange, which is NOT a true machined surface. This incorrect technique appears as terrific sideways run-out and the balancing 'specialist' always blames the wheel. Now you know the truth.

It is always best to check the wire wheel by clamping it onto a front hub, using the correct knock-on nut BEFORE fitting the tyre. Spin the wheel on the hub and check sideways or vertical run-out as shown in the illustration, and observe or measure the run-out:

+ or  $-\frac{1}{16}$ " is not a problem, even  $+/-\frac{1}{8}$ " is barely detectable on the road.

So the conclusion is summarised as follows:

Our new wire wheels are built and assembled to the highest standards.

When your wheel/tyre fitter says they are no good, there is a very, very strong chance that he is not using the equipment in a fashion which is appropriate for wire wheels. The above tips will allow you to check the 'truth' of the wire wheel, whether the wheel is new or used.

It's a sad truth that wire wheels have a bad reputation they don't deserve, but the people who give them a bad reputation actually deserve it themselves. We have total confidence in the Dunlop product we sell.

Pete Cox

We show here the advice given to tyre fitters, produced by Motor Wheel Service.

#### **How To Balance Centre Lock Wire Wheels**

These notes are intended as a guide in helping to solve problems that are commonly encountered when balancing wire wheels on a electronic balancer.

#### Diagram A

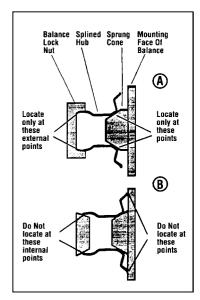
is the correct method of locating the wheel.

#### Diagram B

shows the wrong method and one which gives false readings, giving the appearance of untrue or wheels that require large amounts of weights to balance the wheel.

#### Points To Check

- The original high degree of balance may be affected by wheel damage as well as by factors related to the tyres uneven tread wear, cover or tube repairs.
- If roughness or high speed steering troubles develop, and this cause is not disclosed by mechanical investigation, then the complete tyre & wheel assembly should be checked for halance

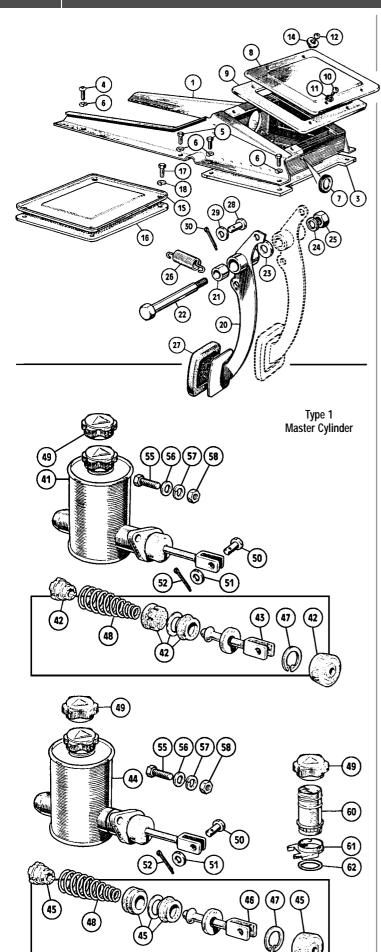


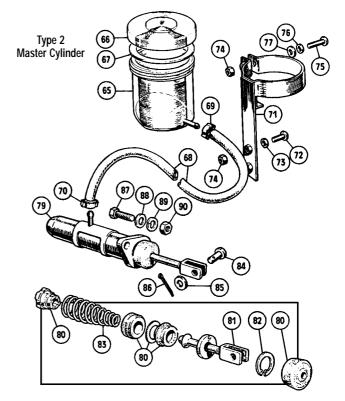
• It is IMPERATIVE that the hubs are located in the balancing machine in exactly the same manner as located on the car, and the factory truing jigs. Alternatively, balance on the vehicle, this operation can only be done on the front wheels.

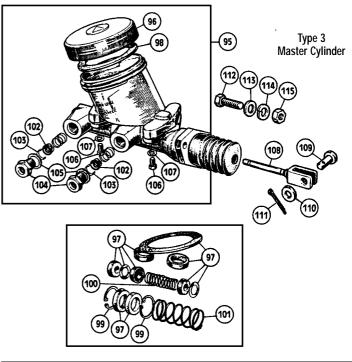
Motor Wheel Services' dedicate considerable time to ensure that your wheels are of the highest quality & reliability. Following this guide, and the information contained in our centre-lock brochure will provide the highest level of customer satisfaction.



# 120 | Brake Master Cylinder & Pedal







ill. Part Number Description Oty. *Detai* No Reg.

# **Brakes - An Introduction**

Note: The changes wrought on the pedal box and brake master cylinder look complicated, but can reasonably be defined as follows.

On the previous 948 & 1098cc Sprites and Midgets, a 'dual' cylinder supplied both the single line brake system and the clutch system. From the start of production of the 1275 cars in 1967, new separate brake and clutch master cylinders were introduced (the brake master cylinder becomes 'Type 1' here), necessitating a new pedal box design. A short time later, the North American spec. cars were equipped with dual line brakes (a feature not to be found on UK and European cars until 1978); at this time they also acquired a mechanical brake light switch fitted in a hole in the pedal box (UK and European cars used a hydraulic switch in the circuit).

Gradually the factory rationalised the pedal boxes, phasing out the non-pierced item and instead giving the UK & European cars the American pedal box with the hole blanked off with a plug. (Continued)

ill.	Part Number	Description	Qty.	Details
No			Rea.	

#### (Continued from previous page)

Upon introduction of the Midget 1500 in 1975, the brake system was changed; the master cylinder remained the same but the hydraulic brake light switch was dropped in favour of the American-type mechanical switch (so the blanking plug was no longer required).

For a brief period in 1977-1978 a brake master cylinder with a plastic remote reservoir was used ('Type 2'), necessitating a pedal box with a bracket to hold the reservoir. After this time dual line brakes were fitted to all Midget 1500's, using a new (in the UK and Europe) master cylinder with integral plastic reservoir ('Type 3'. Two other details should be mentioned here.

Safety legislations in France and the 'Benelux' countries (Belgium, Netherlands, Luxembourg) required that the brake fluid level and condition be visible without having to remove the filler cap; for those specific markets a translucent plastic extension was screwed on to the top of a Type 1 master cylinder throughout sales of Sprites and Midgets to those countries

Also take note that while the Type 1 master cylinder was ostensibly the same from 1967 though to mid-1977, in fact the internal details were changed at G-AN6-169643 approx. in Midget 1500 production; the later type, only identifiable by circular marks on the cylinder casting, was henceforth supplied as a service replacement for earlier cars. The moral is that replacing the master cylinder is easy; however if you intend to rebuild your old cylinder you must clearly establish which one you have before ordering components for it.

#### Brake Pedal & Pedal Box

	AHA8065	PEDAL BOX	1	G-AN4 and H-AN9
		(no hole for brake light switch)		l to mid-1969
1	AHA8408	PEDAL BOX	1	G-AN4 and H-AN9 from
		(with brake light switch hole blanked off,		mid-1969; G-AN5; H-AN10;
		rubber plug on all models except G-AN6)		A-AN10; to G-AN6-200000
	CHA756	PEDAL BOX	1	from G-AN6-200001
		(with holes for mounting remote M/cyl reser	voir bi	racket)
3	AHA8072	GASKET (pedal box to footwell)	1	
4	SE604051	SCREW	2	pedal box to body
5	SH604051	SCREW	6	
6	GHF331	WASHER, locking	8	
7	RFR204	PLUG, rubber (brake light switch hole)	1	not G-AN6.
8	AHA8074	COVER PLATE, pedal box	1	
9	AHA8073	GASKET, pedal box cover plate	1	
10	AHA8076	SCREW, taptite (cover to pedal box)	3	
11	WL700101	WASHER, locking	3	
12	ZPT1006	SCREW	1	
		(cover & spare ignition key to pedal box)		
14	53K3157	WASHER, plain,	1	(for spare ignition key)
15	AHA8145	BLANKING PLATE (pedal box aperture)	1	1
16	AHA8146	GASKET, blanking plate	1	Passenger side
17	SH604051	SCREW, blanking plate to body	4	
18	GHF331	WASHER, locking	4	j
20	AHA9723	PEDAL, brake	1	] G-AN4; G-AN5; to
				G-AN6-212000; H-AN9;
				H-AN10; A-AN10
	CHA791	PEDAL, brake	1	from G-AN6-212001
21	LBS810	BUSH, pedal	2	
22	AHA8075	BOLT, pivot (brake & clutch pedals)	1	
23	GHF304	WASHER, plain	1	
24	GHF333	WASHER, locking	1	
25	FNZ506	NUT	1	
26	AAA1628	RETURN SPRING, brake pedal	1	
27	AHA5326	PAD, pedal rubber	1	
28	CLZ513	CLEVIS PIN	1	pedal to master cyl. push rod
29	GHF301	WASHER, plain	1	,
30	GHF502	SPLIT PIN	1	

#### The Incurable Rattle

Many owners of Sprites & Midgets other than post 1976 Midget 1500's will recognise the frustration of the following;

A light, metallic rattle from somewhere inside the back of the car, every time a manhole cover or ridge in the road is driven over. Checked the boot lid stay? Yes. Was it loose? No.

Something rolling around in the boot? No. Boot lid lock or striker not quite aligned? No.

Exhaust mounting broken? No.

Fuel or brake pipe come loose? No.

Shock absorber bolt (or any suspension bolt) loose? Definitely not.

#### The answer lies with the hand brake mechanism.

The cross rods running from the centre of the rear axle out to the hand brake levers on the brakes are held by clevis pins and split pins. Excessive play is restricted by the use of two felt washers on each clevis pin.

If there's a rattle at the back of the car that's difficult to trace, the odds are on some or all of the felt washers being missing. When lying under the car shaking the cross rods by hand, they don't make the right sound: a dull clunk rather than a sharp metallic rattle.

The only way to be sure is to count the felt washers; any less than two per joint and you can be sure that's where the rattle is coming from.

	Part Number	Description	Qty. <i>Details</i>
No			Rea

# **Master Cylinders**

Type 1 (G-AN4; G-AN5; to G-AN6-200000; H-AN9; H-AN10; A-AN10.)

41 42 43	GMC113 GRK1026 27H8459	MASTER CYLINDER REPAIR KIT PUSH ROD	1 1 1	Plain body (no circle or groove)
44 45 46	GMC151 GRK1009 AAU3469	MASTER CYLINDER REPAIR KIT PUSH ROD	1 1 1	Circle or groove on body
47	17H7560	CIRCLIP	1	
48	27H7751	SPRING	1	
49	513123A	CAP, filler	1	
50	CLZ513	CLEVIS PIN (push rod to pedal)	1	
51	GHF301	WASHER, plain	1	
52	GHF502	SPLIT PIN	1	
55	SH605071	SCREW (master cylinder to pedal box)	2	
56	GHF301	WASHER, plain	2	
57	GHF332	WASHER, locking	2	
58	FNZ505	NUT	2	
60	BHA4661	EXTENSION (translucent plastic)	1	]
61	BHA4660	CLIP, locking	1	France & Benelux countries
62	BCA4964	SEAL	1.	]

these clips require a crimping tool to fit them

use if weld nuts are missing from the bracket

#### Type 2 (G-AN6-200001 to 212000)

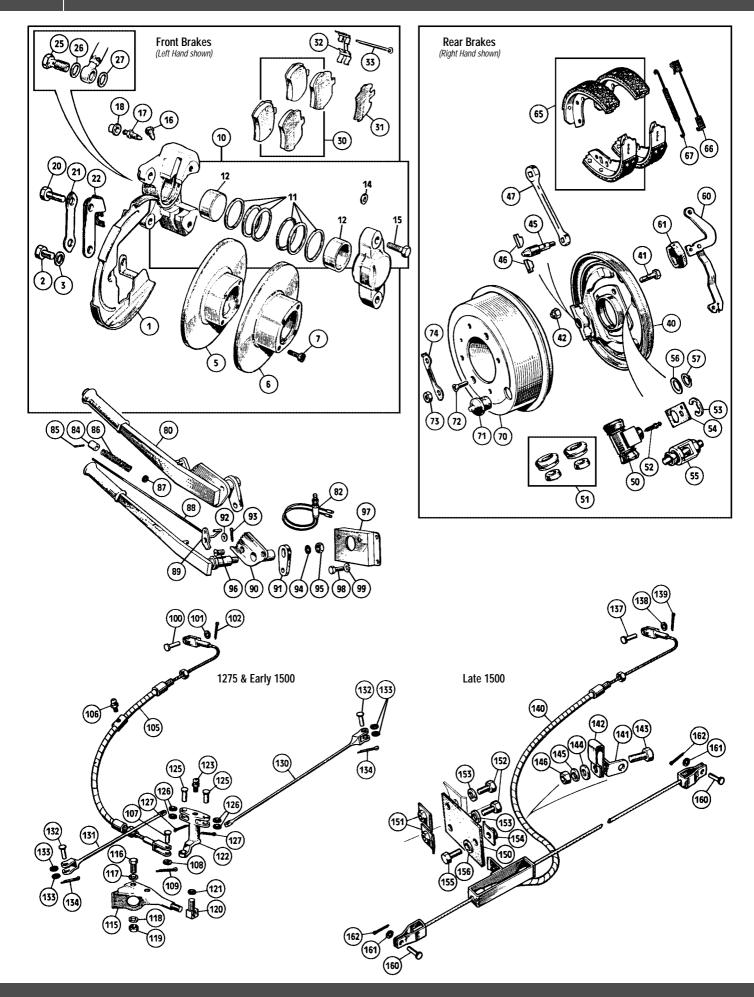
DECEDVINID

65 RHA4910

BHA4810	RESERVOIR	1
AAU3815	CAP, filler	1
37H2172	SEAL, filler cap	1
CHA793	HOSE, reservoir to cylinder	1
ADU1169	CLIP (hose to reservoir)	1
AAU1711	CLIP (hose to cylinder)	1
CHA753	BRACKET, reservoir to pedal box	1
PMZ308	SCREW, bracket to pedal box	2
WL700101	WASHER, locking	2
NH910010	NUT	a/r
PMZ312	SCREW, clamping (reservoir)	1
WL700101	WASHER, locking	1
GHF306	WASHER, plain	1
GMC166	MASTER CYLINDER	1
GRK1009	REPAIR KIT	1
AAU3469	PUSH ROD	1
17H7560	CIRCLIP	1
AAU8105	SPRING	1
CLZ513	CLEVIS PIN	1
GHF301	WASHER, plain	1
GHF502	SPLIT PIN	1
SH605071	SCREW (master cylinder to pedal box)	2
GHF301	WASHER, plain	2
GHF332	WASHER, locking	2
FNZ505	NUT	2
	AAU3815 37H2172 CHA793 ADU1169 AAU1711 CHA753 PMZ308 WL700101 NH910010  PMZ312 WL700101 GHF306 GMC166 GRK1009 AAU3469 17H7560 AAU8105 CLZ513 GHF301 GHF502 SH605071 GHF301 GHF332	AAU3815 CAP, filler 37H2172 SEAL, filler cap CHA793 HOSE, reservoir to cylinder ADU1169 CLIP (hose to reservoir) AAU1711 CLIP (hose to cylinder) CHA753 BRACKET, reservoir to pedal box PMZ308 SCREW, bracket to pedal box WL700101 WASHER, locking NH910010 NUT  PMZ312 SCREW, clamping (reservoir) WL700101 WASHER, locking GH5306 WASHER, plain GMC166 MASTER CYLINDER GRK1009 REPAIR KIT AAU3469 PUSH ROD 17H7560 CIRCLIP AAU8105 SPRING CLZ513 CLEVIS PIN GHF301 WASHER, plain GHF502 SPLIT PIN SH605071 SCREW (master cylinder to pedal box) GHF301 WASHER, plain GHF332 WASHER, plain GHF332 WASHER, plain

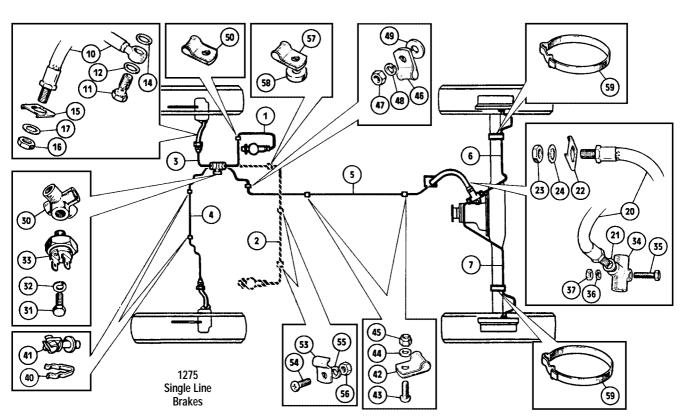
#### Type 3 (G-AN6-212001 on)

95	GMC170	MASTER CYLINDER	1
96	AAU3815	CAP, filler	1
97	GRK1020	REPAIR KIT	1
98	37H2172	SEAL, filler cap	1
99	27H8445	CIRCLIP	2
100	37H2763	SPRING	1
101	37H2764	SPRING, primary	1
102	27H8453	BODY, trap valve	2
103	514151A	CLIP, trap valve	2
104	27H8456	ADAPTOR, outlet	2
105	11D5070	GASKET, adaptor	2
106	7H7520	SCREW (reservoir to master cylinder)	4
107	GHF321	WASHER, shakeproof	4
108	BHA5132	PUSH ROD	1
109	CLZ513	CLEVIS PIN	1
110	GHF301	WASHER, plain	1
111	GHF502	SPLIT PIN	1
112	SH605071	SCREW (master cylinder to pedal box)	2
113	GHF301	WASHER, plain	2
114	GHF332	WASHER, locking	2
115	FNZ505	NUT	2



# Front/Rear Brakes & Handbrake | 123

iII. No	Part Number	Description	Qty. Req.	Details	iII. No	Part Number	Description	Qty. Req.	Details	
Fro	nt Brakes				Hai	nd Brake Leve	r Assembly			
1	BTA473	BACK PLATE, LH	1		80	AHA6406	HANDBRAKE LEVER, chrome	1	to G-AN6-166303	
•	BTA472	BACK PLATE, RH	1			CHA567	HANDBRAKE LEVER, black	1	] from G-AN6-16630	)4
2	SH605031	SCREW, back plate securing	2		82		SWITCH, hand brake warning light	1		
3	WE600051	WASHER, shakeproof	2		84	7H5948	PLUNGER, chrome	1	•	
5	BTA383	BRAKE DISC	2	use with steel wheels only	85	MPS4304	PIN, plunger	1		
6	BTA469	BRAKE DISC	2	use with wire wheels only	86	7H5950	SPRING, plunger	1		
7	BTA403		8	use with whe wheels only	87	7H5950 7H5951	WASHER, rubber	1		
		BOLT, hub to disc	o 1				· · · · · · · · · · · · · · · · · · ·	1		
10	17H9438	CALIPER, LH, new			88	17H2093	ROD, pawl operating	1		
	17H9438E	CALIPER, LH, recon, exchange	1		89	7H5946	PAWL	1		
	17H9439	CALIPER, RH, new	1		90	7H5947	RATCHET	1		
	17H9439E	CALIPER, RH, recon, exchange	1		91	17H786	LINK, main spindle	1		
	GRK5008	REPAIR KIT, caliper	2		92	AWZ104	WASHER	1		
	17H7960	PISTON, caliper	4		93	GHF500	SPLIT PIN	1		
14	17H7679*	O' RING, fluid channel	2		94	GHF323	WASHER, shakeproof	1		
	*Warning: You car	n only get to this O' ring by splitting the caliper	halves	; under no circumstances should	95	GHF202	NUT	1		
you	do so unless, you a	re an experienced brake specialist.			96	SF605051	SCREW, ratchet to bracket	2		
15	17H8250	BOLT, bridge	4		97	2A7291	BRACKET	1		
16	17H7917	PLUG	2		98	SH605051	SCREW, bracket to transmission tunnel	2		
17	3H2428	BLEED SCREW	2		99	GHF332	WASHER, locking	2		
18	234957A	DUST COVER, bleed screw	2				, 0			
20	BTA789	BOLT, caliper to stub axle	4		Hai	nd Braka Cahl	e (G-AN4; G-AN5; to G-AN6-182000; H-AN9;	LI AM	10. 1 11/10)	
21	BTC114	LOCK TAB	2		IIIai	iu biake cabit	C (G-AN4, G-AN3, 10 G-AN0-102000, H-AN9,	Π-AIV I	IU, A-ANTU)	
22	BTA793	LOCK PLATE, brake hose (LH)	1		100	CI 7515	CLEVIC DIN cable to bandbrake	4		
22	BTA792	LOCK PLATE, brake hose (RH)	1			CLZ515	CLEVIS PIN, cable to handbrake	l l		
25	C5192A	, , ,	2			GHF301	WASHER, plain	1		
		BANJO BOLT, hose to caliper		basis to balk based		GHF502	SPLIT PIN	1		
26	3H550	WASHER, sealing, large	2	banjo to bolt head		GVC1019	HANDBRAKE CABLE	1		
27	233220A	WASHER, sealing, small	2	banjo to caliper	106	UHN305	GREASE NIPPLE	1		
30	GBP281	BRAKE PAD SET (asbestos free)	1		107	CLZ414	CLEVIS PIN, cable to balance lever	1		
		nance & Tuning' in Accessories for Uprated Brai		5.	108	GHF300	WASHER, plain	1		
		SHIM, anti-squeal	4		109	GHF501	SPLIT PIN	1		
32	17H7963	RETAINER, brake pads (spring steel)	2		115	ATA7320	SUPPORT, balance lever	1		
33	PS610241	SPLIT PIN, pad retaining	4		116	SH605051	SCREW, support securing	2		
					117	GHF301	WASHER, plain	2		
Res	r Brakes					GHF332	WASHER, locking	2		
no.	ii Diakos					GHF201	NUT	2		
40	BTA566	BACK PLATE, RH	1 1	G-AN4; G-AN5;		2A7058	CARRIER, balance lever	1		
40	BTA567		1	H-AN9; H-AN10; A-AN10		2K5820	WASHER, felt	1		
		BACK PLATE, LH				2A7057	BALANCE LEVER	1		
	37H8804	BACK PLATE, RH	1	G-AN6		LN30041	GREASE NIPPLE	1		
4.4	37H8805	BACK PLATE, LH	1 ]			CLZ314	CLEVIS PIN,	2	halanaa layar ta ar	ann rad
41	SH605071	SCREW (back plate to axle tube)	8			6K690		4	balance lever to cro	)SS 10U
42	GHF222	NUT, nyloc	8				WASHER, felt	-		
	17H7620	ADJUSTER REPAIR KIT	1			GHF500	SPLIT PIN	2	1.6.4.4.4.4	,
	17H7619	WEDGE, screw	2			BTA498	CROSS ROD (RH)	1	for steel wheels on	ıy
	17H7618	TAPPET (shoe adjusting)	4		131	BTA497	CROSS ROD (LH)	1	]	
47	18G619A	Brake adjusting spanner	1			BTA494	CROSS ROD (RH)	1	for wire wheels onl	у
50	GWC1102	WHEEL CYLINDER	2	G-AN4; G-AN5;		BTA495	CROSS ROD (LH)	1	]	
51	GRK2014	REPAIR KIT	2	H-AN9; H-AN10; A-AN10	132	2K6930	CLEVIS PIN (cross rod to brake lever)	2		
	GWC1129	WHEEL CYLINDER	2	G-AN6	133	2K5291	WASHER, felt	4		
	GRK2004	REPAIR KIT	2		134	GHF500	SPLIT PIN	2		
52	513118A	BLEED NIPPLE	2							
53	17H7949*	CIRCLIP	2	wheel cylinder	Har	nd Brake Cable	<b>e</b> (G-AN6-182001 on)			
54	37H4642	GASKET	2	to back plate			- (			
	4711704074		_	,	137	CLZ515	CLEVIS PIN, cable to handbrake	1		
	17H7949T*	CIRCLIP FITTING TOOL (2 piece)	1			GHF301	WASHER, plain	1		
56	17H7613*	WASHER, 'belleville'	2			GHF502	SPLIT PIN	1		
57	17H7622*	CIRCLIP (wheel cylinder to back plate)	2	alternative to item 53			HANDBRAKE CABLE	1	for stool whools on	du
	*Note: Originally a	a 'Belleville' washer & external circlip were use	d to se	ecure the wheel cylinder. Later the	140	GVC1008			for steel wheels on	,
whe	el cylinder manufad	cturer (Lockheed) superseded this method to a	three	toothed circlip; this is the device		CHA634	HANDBRAKE CABLE	1	for wire wheels onl	у
supp	lied with the wheel	cylinder today. It's a horror to fit (though, it gets	easier	with practice), so Lockheed made		AHH6752	BRACKET (cable to differential)	l l		
a sp	ecial tool for the j	ob. If you invest in the tool, you'll be glad to	know	you can lend it out (for a favour,		AHC156	CLIP, cable to bracket	1		
natu	rally) to friends with	Minis, MGB's, Triumph 2000's etc they all use	e the sa	ame circlip. Alternatively, you could		SH604041	SCREW	1		
buy	the traditional hard	ware (items. 55 & 56) and banish installation p	roblem	s altogether.		GHF300	WASHER, plain	1		
,				•		GHF331	WASHER, locking	1		
60	17H2824	LEVER, handbrake, RH	1			GHF200	NUT	1		
	17H2825	LEVER, handbrake, LH	1		150	CHA637	STRAP, rubber	1		
	17H7612	GAITER, handbrake lever	2		151	CHA635	PLATE (clamping strap to bracket on axle)	2		
65	GBS834AF	BRAKE SHOE SET (asbestos free)	1			GHF117	SCREW, plate and strap to bracket	2		
66	17H7947	SPRING, shoe return (top) (RH)	1			GHF331	WASHER, locking	2		
	17H7948	SPRING, shoe return (top) (LH)	1			CHA636	PLATE (clamping strap to bracket on cable)	1		
67	17H7621	SPRING, shoe return (bottom)	2			SH605061	SCREW, plate and strap to cable	1		
70	2A7168	BRAKE DRUM	2			GHF332	WASHER, locking	1		
71	2A7228	PLUG, rubber	2			CLZ411	CLEVIS PIN (cable to brake lever)	2		
72	SF604051	SCREW, drum securing	4			GHF300	WASHER, plain	2		
73	NH606061	NUT	8 ]	for wire wheels only				2		
74	BTA493	LOCK TAB	4		102	GHF501	SPLIT PIN	۷		
					1					



ill No		Description	Qty. <i>Details</i> Req.
	2 <b>75 Single Lin</b> -AN4; G-AN5; H-AN	e Brakes 19; H-AN10; A-AN10)	
Br	rake Pipes		
	GAC5032 GAC6032	Brake Pipe Kit (RHD) Brake Pipe Kit (LHD)	1 copper pipes
1	GPP28AA	BRAKE PIPE, RHD	1 ]

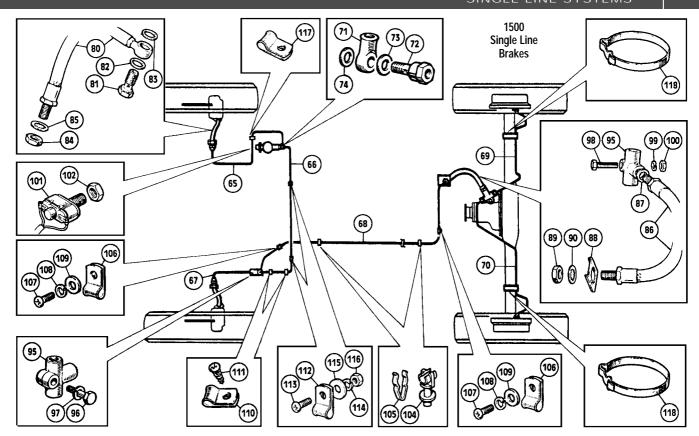
	GAC5032	Brake Pipe Kit (RHD)	1 ]	copper pipes
	GAC6032	Brake Pipe Kit (LHD)	1 ]	
1	GPP28AA	BRAKE PIPE, RHD master cylinder to 5 way union	1 ]	
2	GPP64AA	BRAKE PIPE, LHD master cylinder to 5 way union	1	
3	GPP14AC	BRAKE PIPE 5 way union to RH front brake hose	1	steel pipes
4	GPP50AC	BRAKE PIPE 5 way union to LH front brake hose	1	
5	GPP72AC	BRAKE PIPE 5 way union to rear brake hose	1	
6	GPP20AA	BRAKE PIPE 3 way union to RH rear brake	1	
7	GPP32AA	BRAKE PIPE 3 way union to LH rear brake	1	

# Brake Hoses and Fittings

10 GBH157 BRAKE HOSE, front 2 11 C5192A BANJO BOLT (front hose to caliper) 2	
12 3H550 WASHER, copper 2 bolt head to banjo	
14 233220A WASHER, copper 2 banjo to caliper	
15 1G9198 LOCK PLATE 2	
(front brake hose to front hose to suspension tower)	
16 GHF202 NUT 2	
17 GHF323 WASHER, shakeproof 2	
20 GBH158 BRAKE HOSE, rear 1	
21 233220A WASHER, copper 2 rear hose to 3 way un	on
22 1G9198 LOCK PLATE 2	
23 GHF202 NUT 2	
24 GHF323 WASHER, shakeproof 2	

ill. No	Part Number	Description	Qty. Req.	Details
Uni	ons, Brake Lig	yht Switch and Fittings		
30 31 32 33 34 35 36 37	17H7108 GHF101 GHF331 C16062A 3H2424 BH604101 GHF331 GHF200	UNION, 5 way BOLT (union to RH inner wing) WASHER, locking SWITCH, brake light UNION, 3 way BOLT (3 way union to rear axle) WASHER, locking NUT	1 1 1 1 1 1 1	(fits on union)
Pip	e Clips			
40	6K35	CLIP, metal, (brake pipe to front crossmember)	2 ]	G-AN4; to G-AN5-114642; H-AN9; H-AN10; A-AN10
41	GHF1192	CLIP, plastic, (brake pipe to front crossmember)	2	from G-AN5-114643
42	PCR307	CLIP (brake pipe to tunnel & footwell)	2	
43	PMZ308	SCREW, clip to tunnel & footwell	2	
44	GHF306	WASHER, plain	2	
45	GHF220	NUT, nyloc	2	
46	PCR309	CLIP (brake pipe to footwell side)	1	
47	GHF200	NUT, clip to footwell side	1	
48	GHF331	WASHER, locking	1	
49	GHF300	WASHER, plain	1	
50	PCR309	CLIP (brake pipe to pedal box)	1	RHD
53	CHR307	CLAMP (brake/clutch pipes to bulkhead)	2 ]	
54	PMZ305	SCREW, clamp to bulkhead	2	
55	WL700101	WASHER, locking	2	LHD
56	GHF206	NUT, LH steering only	2	
57	PCR309	CLIP brake pipe to screw securing (pedal box aperture blanking plate)	1	
58	AHH6247	SPACER (between clip & blanking plate)	1	
59	ACA5375	STRAP (brake pipe to rear axle)	2	
00	NONOTO	one ppo to roa ano)	-	

# Brake Pipes, Hoses & Fittings | 125



INO			

(to G-AN6-212000)

GAC5033

GPP34AC

GPP60AA

GHF323

1500 Single Circuit Brakes

# **Brake Pipes**

65

66

Note: This catalogue does not cover LHD North American vehicles;

**BRAKE PIPE** 

**BRAKE PIPE** 

WASHER, shakeproof

BRAKE PIPE KIT (RHD)

if you require components for a LHD Midget 1500, please telephone your local branch for details.

master cylinder to RH front brake hose

copper

		master cylinder to 3 way union		
6	7 GPP12AC	Brake Pipe	1	
		3 way union to LH front brake hose		
6	8 GPP82AC	Brake Pipe	1	steel pipes
		3 way union to rear brake hose		
6	9 GPP20AA	Brake Pipe	1	
		3 way union to RH rear brake		
7	0 GPP32AA	Brake Pipe	1	
		3 way union to LH rear brake		
7	1 7H7851	BANJO UNION, master cylinder outlet	1	
7	2 90577478	BANJO BOLT, special	1	
7	3 3H550	WASHER, copper	1	bolt head to banjo
7	4 233220A	WASHER, copper	1	banjo to master cylinder
В	rake Hoses &	Fittings		
8	0 GBH157	BRAKE HOSE, front	2	
8	1 C5192A	BANJO BOLT (front hose to caliper)	2	
8	2 3H550	WASHER, copper	2	bolt head to banjo
8	3 233220A	WASHER, copper	2	banjo to caliper
8				
	4 GHF202	NUT (front hose to inner wheel arch)	2	
8		NUT (front hose to inner wheel arch) WASHER, shakeproof	2 2	
8	5 GHF323	,	_	
	5 GHF323 6 GBH158	WASHER, shakeproof	_	rear hose to
8	5 GHF323 6 GBH158	WASHER, shakeproof BRAKE HOSE, rear	2	rear hose to 3 way union
8	5 GHF323 6 GBH158 7 233220A	WASHER, shakeproof BRAKE HOSE, rear	2	
8	5 GHF323 6 GBH158 7 233220A 8 1G9198	WASHER, shakeproof BRAKE HOSE, rear WASHER, copper	2 1 2	

	Tart Number	Description	Req.	Details
llni	one Prakali	aht Switch & Eittings		
		ght Switch & Fittings		
95	3H2424	UNION, 3 way	2	
96	GHF101	BOLT	1 ]	3 way union to
			J	LH inner wing
97	GHF331	WASHER, locking	1	
98	BH604101	BOLT (3 way union to rear axle)	1	
99	GHF331	WASHER, locking	1	
100	GHF200	NUT	1	
101	BHA4675	SWITCH, brake light	1	(fits on pedal box)
102	NT606041	NUT	1	
Din	o Clino			
	e Clips	OLID =1==±:= /=!k=====±:==\	0 1	
	GHF1192	CLIP, plastic (alternative)	2	pipe to floor support channel
	6K35	CLIP, metal (alternative)	2 ]	
	PCR307	CLIP (brake pipe to heel board & footwell)	2	
	PMZ308	SCREW (clip to heel board & footwell)	2	
	WL700101	WASHER, locking	2	
	GHF306	WASHER, plain	2	
	PCR307	CLIP (brake pipe to footwell top)	2	
	GHF426	SCREW, clip to footwell top	2	
	PCR307	CLIP (brake pipe to bulkhead)	2	
	PMZ308	SCREW, clip to bulkhead	2	
	WL700101	WASHER, locking	2	
	GHF306	WASHER, plain	2	
116	GHF206	NUT	2	
117	PCR309	CLIP (brake pipe to pedal box screw)	1	
	ACA5375	STRAP (original)	2 ]	brake pipe
118		STRAP (replacement)	2	to rear axle

BRAKE PIPE, steel

TUBE NUT, male

TUBE NUT, female

BRAKE PIPE, cupro-nickel

7 metre roll

(3/8" UNF thread)

a/r

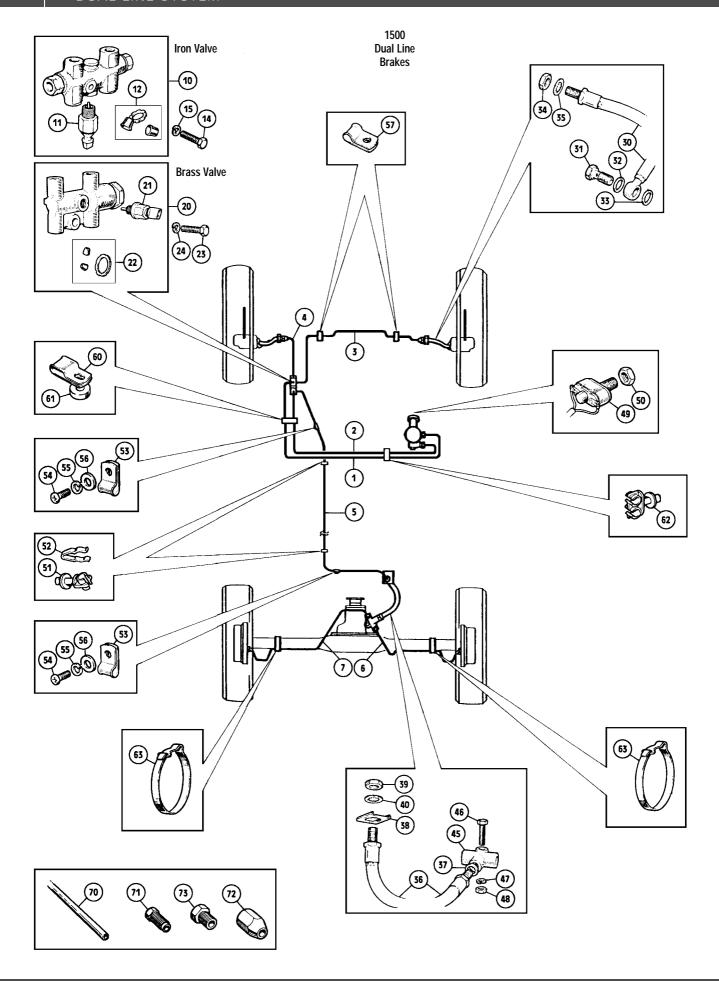
a/r

NI EF125

125 MPKF125

126 TM606031

127 TN606031



ill. No	Part Number	Description	Qty. Req.	Details

#### 1500 Dual Line Brakes

(G-AN6-212001 on

#### **Brake Pipes**

Note: While the Midget 1500 was manufactured (like its predecessors) in both RHD LHD versions, the latter were exclusively North American specification cars. This catalogue does not cover North American vehicles; if you require a brake pipe (or any other component) for a LHD Midget 1500, please telephone your nearest branch for details.

	GAC5061	Brake Pipe Kit, RHD	1	copper
1	GPP66AT	BRAKE PIPE	1	l ''
		front master cylinder outlet to PDWA valve		
2	GPP60AA	Brake Pipe	1	
		rear master cylinder outlet to PDWA valve		
3	GPP42CT	Brake Pipe	1	
		PDWA valve to RH front brake hose		steel pipes
4	GPP10CT	Brake Pipe	1	
		PDWA valve to LH front brake hose		
5	GPP82AC	Brake Pipe	1	
		PDWA valve to rear brake hose		
6	GPP20AA	Brake Pipe	1	
		3 way union to RH rear brake		
7	GPP32AA	Brake Pipe	1	
		3 way union to LH rear brake		

#### **PDWA Valve**

There are two types of 'Brake Pressure Differential Warning Actuator' (PDWA) valves which may be found under the bonnet of your dual line-braked Midget 1500. They may be easily identified by the material that the main valve body is made from.

The one you are more likely to find is the cast iron item (AAU2583), which was the factory fitment during the period in which your car was built. On earlier USA market cars, plus other vehicles from the British Leyland line up, a brass PDWA valve (13H5905) was fitted; new brass valves have at times been more prevalent in the classic car spares market, with the result that many are now fitted to late model Midget 1500's.

As assemblies, the cast iron and brass valves are interchangeable; however the actuator switches screwed into the bodies are not.

The switch to fit the brass valve, RTC826, has a coarse pitch thread of approximately 9mm diameter, whereas the switch for the cast iron valve. AAU1700A, has a fine pitch thread of approximately 15mm diameter.

VALVE ASSEMBLY DDWA (cast iron)

10		VALVE ASSEMBLY, PDWA (cast iron)	1	1
11		SWITCH, actuator	1	
12	BAU1775	REPAIR KIT, valve	1	original (cast iron)
14	BH604141	BOLT (valve to LH front inner wing)	1	
15	GHF331	WASHER, locking	1	1
20	13H5905	VALVE ASSEMBLY, PDWA (brass)	1	1
21	RTC826	SWITCH, actuator	1	
22	BAU1704A	REPAIR KIT, valve	1	Replacement (brass)
23	GHF101	SCREW (valve to LH front inner wing)	1	
24	GHF331	WASHER, locking	1	]
Br	ake Hoses ar	nd Fittings		
30	GBH157	BRAKE HOSE, front	2	
31		BANJO BOLT, front hose to caliper	2	
32		WASHER, copper	2	bolt head to banjo
33	233220A	WASHER, copper	2	banjo to caliper
34	GHF202	NUT (front hose to inner wheel arch)	2	, ,.
35		WASHER, shakeproof	2	
36	GBH158	BRAKE HOSE, rear	1	
37		WASHER, copper	2	rear hose to 3 way union
38	1G9198	LOCK PLATE	2	,
39	GHF202	NUT	2	
40	GHF323	WASHER, shakeproof	2	
Ur	nions, Brake L	ight Switch and Fittings		
45	3H2424	UNION, 3 way	1	
46		BOLT, 3 way union to rear axle	1	
47		WASHER, locking	1	
48		NUT	1	
49		SWITCH, brake light	1	(fits on pedal box)
50		NUT	1	(mo on poddi bony
Di	na Cline			
гі	pe Clips			
51	GHF1192	CLIP, plastic (alternative)	2	pipe to floor support channel
52	6K35	CLIP, metal (alternative)	2	I
53	PCR307	CLIP (pipe to heel board & footwell)	2	

ill. No	Part Number	Description	Qty Req		Details
54	PMZ308	SCREW (clip to heel board & footwell)	2		
55	WL700101	WASHER, locking	2		
56	GHF306	WASHER, plain	2		
57	PCR311	CLIP, pipe to steering rack mount	2		
60	AHA8683	CLIP	1		
00	7 10000	(brake pipes to screw securing pedal box ap	ertur	e b	lanking plate)
61	AHH6247	SPACER, between clip & blanking plate	1		•
62	13H9593	CLIP. bulkhead	5		
		(for brake pipes between master cylinder an	d PD	WA	valve)
63	ACA5375	STRAP (original)	2	1	brake pipe
	ACH8650	STRAP (alternative)	2		to rear axle
		,			
Bra	ke Pipe Lengtl	ns & Nuts			
			- 1	,	7
70	EF125	BRAKE PIPE, steel	a/r	ł	7 metre roll
74	MPKF125	BRAKE PIPE, cupro-nickel	a/r	]	2/ 11 11 11 11 11 11
71	TM606031	TUBE NUT, male	a/r	1	3/8" UNF thread
72	TN606031	TUBE NUT, female	a/r	J	7/ " " " " " " " " " " " " " " " " " " "
73	BHA4706	TUBE NUT, male	a/r		7/16" UNF thread

### **Brake Bleeding and Dual Circuit Brakes**

The recommended replacement period for the originally specified brake fluid is 2 years.

Girling, the manufacturers of brake systems fitted on many motor cars, write;

"To enable brake fluid to work, it has to remain incompressible even at the high temperatures which can be generated within the brake system - up to 170°C. However, brake fluid is hygroscopic, which means that by its chemical nature it absorbs moisture (water) from the atmosphere through the reservoir breather & the flexible hoses.

When the moisture builds up there is a major risk that, under heavy braking, the fluid will 'boil'. The water in the system near the 'hot spots' (calipers & wheel cylinders) turns to vapour and then compresses. The technical term is vapour lock.

The reality is at best a soft, spongy pedal, at worst total brake failure."

They recommend that the boiling point of brake fluid should be tested periodically to indicate its moisture content. Such test equipment may not be readily available to the private owner.

Thus the 2 yearly renewal procedure should be adopted.

The brake bleeding operation is clearly detailed in all quality service manuals for all types of car. What is missing from many publications is how to cope with dual circuit systems fitted with the pressure differential warning actuator (PDWA) valve. The trick with dual circuit systems incorporating the PDWA valve is to take matters slowly, bleeding one fully opened screw at a time, unless you can rely on assistants who would otherwise be required. Do not pump up pressure, nor push the pedal through its full stroke during the bleeding operation.

After bleeding the brakes completely, the brake warning light on the fascia is often illuminated.

This will have been caused during the bleeding operation by a differential in fluid pressure in the system moving the valve shuttle, actuating the switch and blocking off one fluid circuit (exactly what it is supposed to do in the event of failure of one of the brake circuits). To re-centralise the shuttle the following steps should be taken.

- 1. Fit a rubber tube, as used in the bleeding operation, to a bleed screw at the opposite end of the car to that which has just been bled. Submerge the other end of the tube in a container of appropriate brake fluid.
- 2. Open the bleed screw.
- 3. Switch on the ignition but DO NOT START THE ENGINE (the brake warning light will glow).
- 4. Exert a steady but light pressure on the brake pedal until the brake light is extinguished.

The moment the light goes out close the bleed screw and stop pressing the pedal (a click may be felt through the pedal as the shuttle returns to its mid-position).

- 5. Tighten all bleed screws.
- 6. When the system is sealed, depress the brake pedal and test for 'feel'. The brake failure warning light should not glow if the brakes are correctly bled and the PDWA valve shuttle is set centrally.

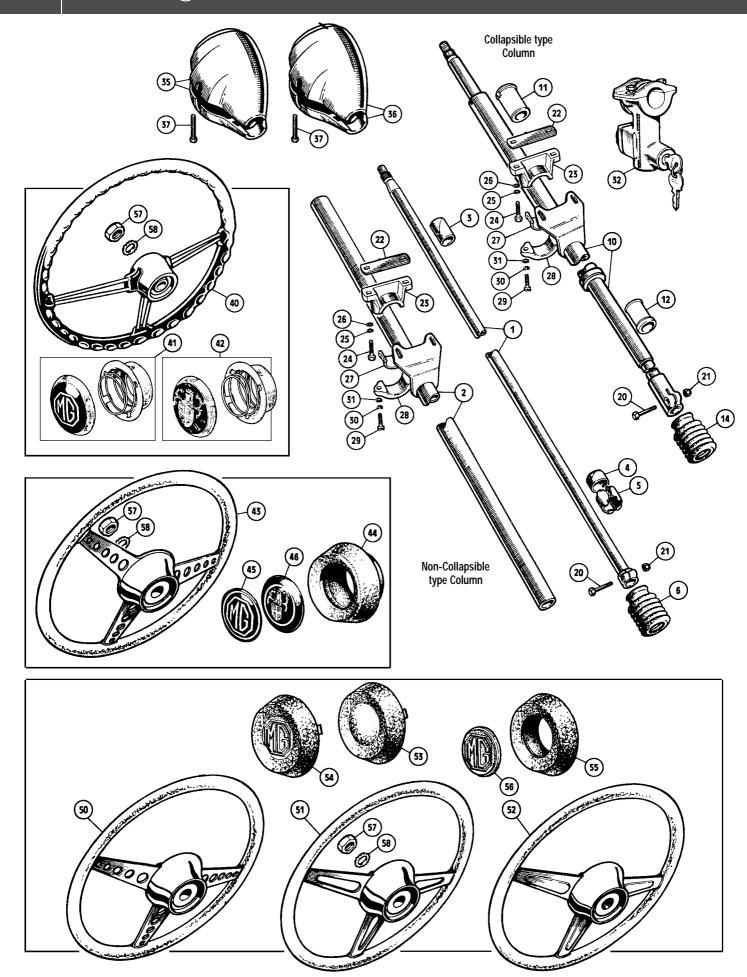
**Note:** If the pedal is pushed too hard the shuttle will move to the other side of the valve, thus requiring the procedure to be repeated on a brake bleed screw at the opposite end of the car.

# Clutch & Brake Fluids

When did you last change your Clutch/Brake fluid?

DOT 3 fluid ought to be completely discarded, DOT 4 ('GBF4') should be installed and replaced every 2 years, as recommended by manufacturers.

Bral	ke/Clutch Fluid	(DOT 4 Specification);	
NI	GBF4102	(500ml)	a/r
NI	GBF4103	(1 Litre)	a/r
NI	GBF4104	(5 Litre)	a/r
Silio	one Brake/Clut	ch Fluid (DOT 5 Specification	);
NI	ABF3	(500ml)	a/r
NI	ABF4	1 Litre)	a/r
Rac	ing Brake/Clutc	h Fluid (DOT 5 Specification)	;
NI	GBF5102	(500ml)	a/r
NI	GBF5103	(1 Litre)	a/r



# Steering Column & Wheels | 129

ill.	Part Number	Description	Qty.	Details
No			Req.	
Ste	ering Columns	, Non-Collapsible		
1	17H9185	COLUMN, inner RHD/LHD (no lock)	1]	
2	17H9184	COLUMN, outer RHD/LHD (no lock)	1	
	27H2359	COLUMN, inner RHD (accepts lock)	1	
	27H2361	COLUMN, inner LHD (accepts lock)	1	G-AN4; H-AN9
	27H2358	COLUMN, outer RHD (accepts lock)	1	
	27H2360	COLUMN, outer LHD (accepts lock)	1 ]	
	37H4769	COLUMN, inner RHD/LHD (no lock)	1 ]	
	37H4766	COLUMN, outer RHD/LHD (no lock)	1	
	37H4770	COLUMN, inner RHD/LHD (accepts lock)	1	to G-AN5-105500
	37H4771	COLUMN, outer RHD (accepts lock)	1	H-AN10; A-AN10
	37H4772	COLUMN, outer LHD (accepts lock)	1	
3	AHA5893	BUSH, upper	1	
4	13H569	BUSH, lower	1	
5	13H568	CLIP, lower bush securing	1	
6	AHA5435	SEAL, draught excluding	1 ]	

#### Steering Columns, Collapsible

Note: 1275 Sprites & Midgets were freely available with RHD or LHD specification.

While the Midget 1500 (G-AN6) was manufactured in both RHD and LHD versions, the latter were exclusively North American market cars. This catalogue does not cover North American vehicles; if you require a steering column part (or any other component) for a LHD Midget 1500, please contact your local branch for details.

10	AHA9792	COLUMN ASSEMBLY, RHD, new	1	
	AHA9792E	COLUMN ASSEMBLY, RHD, *recon'	1	G-AN5-105501 on;
		*(exchange)	]	to G-AN6-170989
	CHA558	COLUMN ASSEMBLY, RHD, new	1 ]	
	CHA558E	COLUMN ASSEMBLY, RHD, *recon'	1	G-AN6-170990 on.
		*(exchange)	]	
	AHA9882	COLUMN ASSEMBLY, LHD, new	1 ]	
	AHA9882E	COLUMN ASSEMBLY, LHD, *recon'	1	G-AN5-105501 on.
		*(exchange)	J	
11	MGP1050B	BUSH, upper	1	
12	MPB1002	BUSH, lower	1	
14	AHA9801	SEAL, draught excluding	1	from G-AN5-105501
	CHA457	SEAL, draught excluding	1	to G-AN6-170989
	CHA559	SEAL, draught excluding	1	from G-AN6-170990
Ste	ering Column	Mountings		
20	53K1013	BOLT, clamping	1	column to steering rack
21	LNZ104	NUT, locking	1	-
22	2A6144	SHIM	a/r	
23	2A6132	BRACKET, column mounting	1	
24	GHF101	SCREW, bracket to body	2	
25	GHF331	WASHER, locking	2	
26	GHF300	WASHER, plain	2	
27	4B2502	SEATING, column bracket	1	
28	2A6133	CAP, bracket	1	
29	SE504091	SCREW, cap to bracket	2	
30	GHF331	WASHER, locking	2	
31	GHF300	WASHER, plain	2	
32		STEERING LOCK	1	see page 157
				, ,
Ste	ering Column	Cowls		
35	18G8387	COWLING, top & bottom halves (RHD)	1 ]	G-AN4, H-AN9 (without
	18G8388	COWLING, top & bottom halves (LHD)	1 ]	(headlamp flash on stalk)
36	18G8713	COWLING, top & bottom halves (RHD)	1 ]	G-AN4, H-AN9 (with head-
	18G8714	COWLING, top & bottom halves (LHD)	1	lamp flash on stalk) all G-AN5,
		.,,	- 1	, , , . =

# **Steering Wheels**

37 RMP214

Note: Horn push pads are included here as they are seen to be part of the steering wheel. However, the full range of

SCREW, cowling (top to bottom half)

nc	orn pusnes ana tneii	r associatea components may be touna in "Switch	es & contr	ois (Fascia & Column) on page 15 i
40	) AHA9193	STEERING WHEEL (wire spokes)	1 ]	
41	I BHA4442	HORN PUSH, 'MG' logo	1	G-AN4; H-AN9
42	2 BHA4441	HORN PUSH, 'Austin' logo	1	
43	3 BHH111*	STEERING WHEEL (five hole spokes)	1 ]	
44	1 31G1039*	CENTRE PAD	1	to G-AN5-89514;
45	5 BHA4979*	BADGE, centre pad, 'MG' logo	1	to H-AN10-86302
46	BHA5010*	BADGE, centre pad, 'Austin' logo	1	

\*The steering wheel BHH111 introduced for the 1970 model year was the first on non-American Sprites & Midgets to be devoid of a horn push (the horn was operated from the indicator stalk). This state was not to last for long, however, because in July 1970 a new (but similar) steering wheel was introduced with a horn push pad in the centre. If you have an early 1970 car and you're stuck for a BHH111 steering wheel, any of the later three wheels will do the job (BHH291 is closest to original in style - it has five hole spokes), together with an appropriate horn push to act as a centre pad.

iII. No	Part Number	Description	Qty. Req.	Details
50	BHH291	STEERING WHEEL (five hole spokes)	1	G-AN5-89515 to G-AN5-123730;
51	BHH786	STEERING WHEEL (slotted spokes)	1	H-AN10-86303 on; A-AN10 G-AN5-123731 to G-AN5-135881
52	BHH1307	STEERING WHEEL (embossed spokes)	1	G-AN5-135882 on; G-AN6
53	BHA5053	HORN PUSH, no logo (for Sprite)	1	H-AN10-86303 on; A-AN10
54	BHA5043	HORN PUSH, black 'MG' logo	1	G-AN5-89515 to
				G-AN5-105500
	BHA5135	HORN PUSH, red 'MG' logo	1	G-AN5-105501 on;
				to G-AN6-200000
	AAU1161	HORN PUSH, gold 'MG' logo	1	used on selected
				1975 G-AN6 cars
55	CHA748	CENTRE PAD, hollow centre	1	
56	CHA747	BADGE, black/silver 'MG' logo (original)	1	
	BHH1994	BADGE, black 'MG' logo (alternative)	1	G-AN6-200001 on.
	BHH2687	BADGE, red/silver 'MG' logo (alternative)	1	]
57	ACH6001	NUT (steering wheel to column)	1	
58	6K900	WASHER, shakeproof	1	

#### **Removing and Refitting Components**

#### 1. The steering lock.

There are several ways of removing steering lock shear bolts, which by security conscious design will have sheared their heads off during fitting. The methods range from the ham-fisted (ignoring the bolts and simply hack-sawing the lock off, thereby destroying it ) to a couple of more rational ideas described below.

If there is any of the shear bolt material proud of the steering lock casting, it may be possible to create a slot across it with careful use of a hacksaw and then undo the bolt with a screwdriver. If this is not possible, the bolt can be undone by putting the point of a centre punch near the outer edge of the sheared surface of the bolt. then angling the punch so that when struck by a hammer it knocks the bolt round in an anti-clockwise direction. Repeating this action will, of course, eventually undo the bolt.

Granted, it's a slow procedure, but it works every time.

Drilling the bolts out is <u>not</u> really recommended if the lock is to be saved; unless you are remarkably skilful (or lucky) in your aim, the drill will probably drift into the soft metal of the lock casting, leaving rather too much of the relatively harder bolt complete. In the same vein, using an 'Easyout' (a device for removing broken studs) is a bit of a gamble; if the Easyout breaks, as it will if you get a little too enthusiastic with it, you will be left staring at something that's definitely too hard to drill out.

#### 2. The steering wheel.

When trying to ease the steering wheel off the tapered splines on the top of the column without the aid of the correct wheel pulling tool (i.e. jiggling it from side to side and tugging at the same time, or tapping the back of the wheel with a soft faced hammer), make sure that the wheel retaining nut is still held on the end of the column by a thread or two.

You'll have saved face - literally - when the wheel eventually breaks free in a hurry from its splines.

Going back to the start of the task, scratch a mark on the top of the inner column to match another on the wheel centre, so that later during re-assembly you don't have to go through the hit and miss process of trying to get the wheel on straight again.

#### 3. Joining the steering column to the steering rack.

Never attempt to join the column and steering rack together without the rack clamps being loose enough to allow a little rotation of the rack in its mountings. The movement will allow the splines of the column and rack to settle properly in line with each other; only then should all the bolts be nipped up tight: the column pinch bolt first, followed by the rack mountings.

If the rack pinion was not quite in line, so that the column exerted a lateral pressure on it, abnormal wear on bushes and bearings would result.

#### The Embarrassing Horn Fault

One sunny afternoon, you find yourself driving along in town with the hood down, generally enjoying life. You turn a corner slowly into a crowded street in your gleaming pride and joy and....the horn blares out, whereupon everyone stops and stares/glares at you. But you're sure you didn't touch the horn. Later, you drive over a bump while following a taxi and the horn goes off again. You hide miserably behind the steering wheel, as much out of sight of the taxi driver as possible. Once back at the sanctuary of your house, you wreak revenge on the horn controls, carrying out a thorough inspection and overhaul. A couple of days later, the same embarrassing events repeat themselves. You can't believe it.

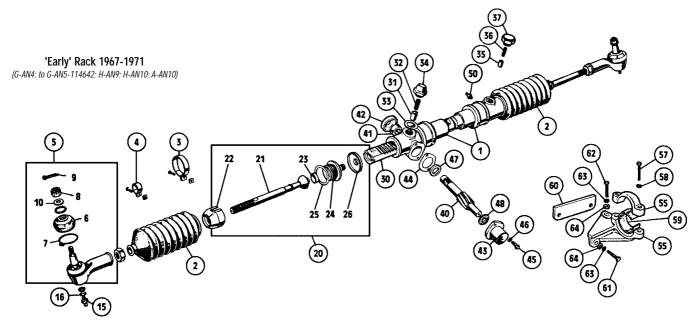
Try this test; hold the steering wheel and try to pull it back towards yourself; then push it forwards, away from yourself, as far as you can. You will probably be shocked at the amount of longitudinal play (though not as shocked as when the horn goes off again).

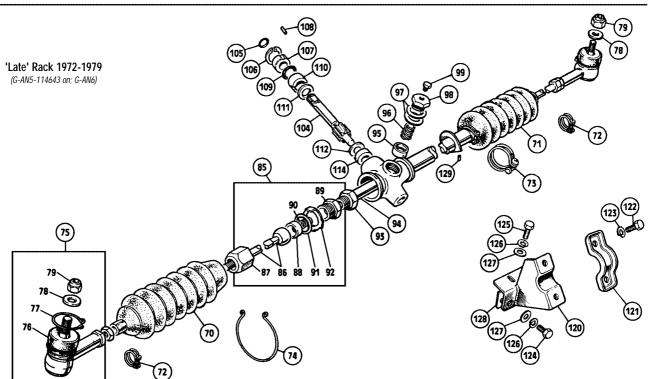
The excessive play - which at its worst point enables the horn circuit to be unintentionally completed - is due to worn thrust washers on the steering rack pinion.

If you fancy your chances dealing with fine tolerance shims & things, have a go at repairing it. If you're sensible, exchange your steering rack for a new or reconditioned item.



G-AN6, H-AN10, A-AN10





ill. Part Number No	Description	Qty. Reg.	Details

# **Steering Racks**

Two types of rack were fitted, the Morris Minor sourced item giving way to the later Triumph design (intermittently) from GAN5-114643. The racks are not interchangeable unless the mounting brackets, track rod ends and steering arms (on the stub axles) are also changed.

# 'Early' Rack 1967-71

(G-AN4; to G-AN5-114642; H-AN9; H-AN10; A-AN10)

ACG6010 ACG6010E ACG6009 ACG6009E	RACK, RHD, new RACK, RHD, exch. recon RACK, LHD, new RACK, LHD, exch. recon	1 1 1 1	to G-AN4-61165 to H-AN9-72528
BTA1096	RACK, RHD, new	1	from G-AN4-61166
BTA1096E	RACK, RHD, exch. recon	1	to G-AN5-114642
BTA1097	RACK, LHD, new	1	from H-AN9-72529
BTA1097E	RACK, LHD, exch. recon	1	H-AN10; A-AN10

ill. No	Part Number	Description	Qty. Req.	Details
.	101000	HOUGHIO I BUD		
1	ACA6020	HOUSING, rack, RHD	1	
	ACA6019	HOUSING, rack, LHD	1	
	ACA6029K	GAITER KIT (2 required)	2	(one per end)
2	ACA6029	GAITER, rack	2	
3	BMK924A	STEEL CLIP, large	2	
4	3H2963	STEEL CLIP, small	2	
5	GSJ169	TRACK ROD END	2	
6	7H3762	GAITER, track rod end	2	
7	7H3565	CLIP, gaiter	2	
8	NL607041	NUT, slotted	2	
9	GHF504	SPLIT PIN	2	
	GHF224	NUT, nyloc	2	(alternative to items 8 & 9)
10	GHF303	WASHER, plain	2	,
15	UHN305	GREASE NIPPLE	2	
16	ACH6173	WASHER, fibre	2	
		,		

	ill. No	Part	Number	Description			Qty. Reg.	Details
20	ACA6	2010	TD	ACK ROD ASSEMBLY		2		
21	ACAG			RACK ROD		2		
22	ACAS			BALL HOUSING, outer		2		
23	ACA5			SEAT, ball		2		
24	ACA			BALL HOUSING, inner		2		
25	ACA			SHIM, 0.002"		a/r		
20	ACAS			SHIM, 0.002"		a/r		
	ACA5			SHIM, 0.005"		a/r		
	ACA5			SHIM, 0.010"		a/r		
26	ACA5			OCK TAB		2		
20	۸۵۸۵	nne	RA	OV.		1		
30 31	ACAE			Dr. D, damper		1		
32	ACA5			RING, pad		1		
33	ACA5			M (0.003")		a/r		
33	ACA5			M (0.010")		a/r		
34	ACA5			USING, damper		1		
35	ACA5			D, secondary damper		1		
36	ACA5			RING, pad		1		
37	ACA5			USING, secondary dan	nor	1		
40	ACAG			ION, RHD	ihei	1	1 to G	AN4-61165,
70	ACAG			ION, LHD		1	ł	AN9-72528 (groove
41	ACAS			AL, pinion		1.	ı	nd pinion spline)
41	BTAS			ION, RHD		1		la pirilori spiirie) 14-61166 on,
	BTAS			ION, LHD		1	ł	AN5-114642.
	BTAS			AL, pinion		1		AND-114042, 19-72529 on,
	DIAS	1000	3L/	AL, PILITOTI		1	ł	19-72529 011, 110, A-AN10 (machined
							•	cross pinion spline)
42	AHAS	106	DE	TAINER, pinion seal		1	ı ııaı a	cross piriiori spiirie)
42	ACAS			ARING, pinion tail		1		
43 44	ACAS					a/r		
44				M (0.003")		a/r		
	ACAS			M (0.005")				
45	ACA5			M (0.010")		a/r		
45		155Z		REW, bearing to rack h	lousing	2		
46	GHF3			SHER, locking		2		
47	ACAS			RUST WASHER, pinion		1		
48	ACA5			RUST WASHER, pinion	, iower	1		
50	UHN	305	NIP	PLE, rack lubrication		1		
55	AHAS	391	BRA	ACKET, rack mounting	, RH	1		
	AHAS	392		ACKET, rack mounting		1		
57	BH50	)5121	Е	OLT, clamping		4		
58	GHF3	32		VASHER, locking		4		
59	2A61	28	SEA	ATING, rack		2		
60	AHA	718	SHI	M, mounting bracket	(1/32")	a/r	1	
00	2A61			M, mounting bracket	` '	a/r	Passi	enger side
	2A61			M, mounting bracket		a/r	t	nting only
	2A61			M, mounting bracket	. ,	a/r	111001	ning only
61		5061		REW (bracket to front of	. ,	4	•	
62	GHF1			REW (bracket to top of a	,	2		
63	GHF3			SHER, locking	5,000,1110,1112,017	6		
64	GHF3			SHER, plain		6		
				, <b>p</b>				
'l o	to' De	ook 1	972-79					
			n; G-AN6)					
			·					
	AHAS			CK, RHD, new		1		
		956E		CK, RHD, exch. recon		1		
	AHAS			CK, LHD, new		1		
	AHAS	955E	RA	CK, LHD, exch., recon		1		
	GSV1	104/5	GAI	TER KIT, services both	n ends	1		
70	GSV1			GAITER, driver's side		1		
71	GSV1			GAITER, passenger sid	е	1		
72	GHC			CLIP, small		2		
73	GHC			CLIP, large (passenger	side)	1		
74	EAW			VIRE TIE, driver's side	,	1		
			•	,				
75	GSJ1			ACK ROD END		2		
76	EAW:			GAITER, track rod end		2		
77 78	1388			CLIP, gaiter		2		
/ X	WB1	ruuh1	W/A	SHFR plain		7		

WB110061

GHF223

WASHER, plain

NUT, nyloc

ill. No	Part Number	Description	Qty. Reg.	Details
85	37H7346	TRACK ROD ASSEMBLY	2	
86	3/11/340	TRACK ROD	2	
87	128024	BALL HOUSING, outer	2	
88	158732	SEAT, ball	2	
89	129963	BALL HOUSING, inner	2	
90	120953	SPRING, seat	2	
91	130031	SHIM (0.002")	a/r	
	130032	SHIM ( 0.010")	a/r	
92	120957	LOCK TAB	2	
93	146364	LOCK NUT	2	
94	208375	RACK	1	
95	120946	PAD, damper	1	
96	126765	SPRING, pad	1	
97	120959	SHIM (0.002")	a/r	
	120949	SHIM (0.004")	a/r	
	132055	SHIM (0.010")	a/r	
98	132053	HOUSING, damper	1	
99	133103	PLUG, grease point	1 ]	alternatives
	056935	GREASE NIPPLE	1 ]	
104	37H7339	PINION, RHD	1	
	37H7340	PINION, LHD	1	
	128021	SEAL, pinion	1	
	509537	CIRCLIP, retaining pinion	1	
	128001	COLLAR	1	
	128008	PIN, securing collar	1	
109	120941	SHIM (0.005")	a/r	
	37H7341	SHIM (0.010")	a/r	
110	127998	BUSH, pinion, upper	1	
111	127999	THRUST WASHER, pinion (upper)	1	
112	128000	THRUST WASHER, pinion (lower)	1	
114	127997	BUSH, pinion (lower)	1	
120	AHA9959	BRACKET, rack mounting, RH	1	
	AHA9960	BRACKET, rack mounting, LH	1	
	AHA9961	CLAMP, bracket	2	
	SH605061	SCREW, clamp to bracket	4	
	GHF332	WASHER, locking	4	
	SH605061	SCREW (bracket to front of crossmember)	4	
	GHF103	SCREW (bracket to top of crossmember)	2	
	GHF332	WASHER, locking	6	
127	GHF301	WASHER, plain	6	
128	AHA8718	SHIM, mounting bracket (1/32")	a/r ]	
	2A6129	SHIM, mounting bracket (3/32")	a/r	passenger side
	2A6130	SHIM, mounting bracket (5/32")	a/r	mounting only
	2A6131	SHIM, mounting bracket (7/32")	a/r ]	
129	145108	DAMPER PLUG, nylon	1	
		(this plug is in the rack tube, under the pass	senger's	side rack mounting bracket)

### Oil or Grease?

Factory manuals proffer the following information on which lubricant to use in each rack:

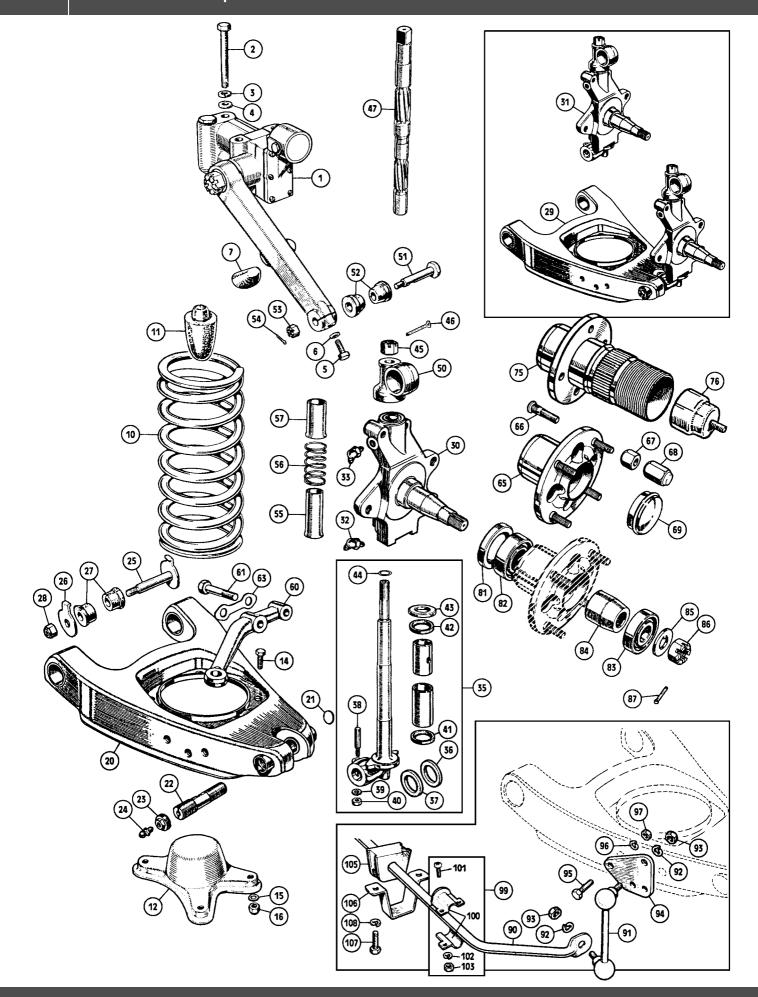
#### Early Rack (1967-71)

At regular intervals, apply a gun filled with SAE 90 Hypoid oil to the lubrication nipple on the rack housing and give ten strokes.

# Late Rack (1972-79);

Remove the grease point plug and screw in place a grease nipple (part number 056935). Turn the steering wheel to full right hand lock; then apply a grease gun (filled with multi-purpose grease), to the nipple and give five strokes only (over greasing may damage the gaiters). Replace the nipple with the plug.

Finally, NEVER assume that a new or reconditioned rack has been pre-filled with lubricant.



ill. No	Part Number	Description	Qty. Req.	Details				
Sho	Shock Absorbers & Springs							
1	GSA103 GSA103E	SHOCK ABSORBER, LH, new SHOCK ABSORBER, LH reconditioned	1 1 1	exchange				
2	GSA102 GSA102E 53K1364	SHOCK ABSORBER, RH, new SHOCK ABSORBER, RH, reconditioned BOLT, shock absorber to frame	1 1 6	exchange				
3	GHF333	WASHER, locking	6					
4	GHF302	WASHER, plain	6					
5 6	53K1389 GHF322	BOLT, fulcrum pin clamping WASHER, shakeproof	2					
7	2A4082	BUFFER, shock absorber arm	2					
10	CHA129	ROAD SPRING, front	2	G-AN4; G-AN5; to G-AN6-171477; H-AN9; H-AN10; A-AN10				
	CHA570	ROAD SPRING, front	2	from G-AN6-171478				
11	AHA6378	BUMP STOP	2					
12 14	21A137 53K1368	SPRING SEAT, lower BOLT, spring seat to lower wishbone	2 8					
15	GHF301	WASHER, plain	8					
16	GHF222	NUT, nyloc	8					
20	AHA7029* AHA7029E*	LOWER WISHBONE ASSEMBLY LOWER WISHBONE ASSEMBLY	2	new reconditioned, exchange				
*Noi		ed if you own a pre-1974 car with 'handed' i						
Only ful o bond supp If yo the	r in 1974 was the a of pre-1974 cars, 'F. es were indeed har olied today. ou still have a pair o Concours d'Eleganc	ements for mounting the anti roll bar are only nti roll bar made a standard feature (although rogeye' Sprites and their ilk excepted, which ded. Subsequently, wishbones became ambout f handed wishbones in good condition, they're e afficionados. With the front suspensions propo-	h there ca didn't ha idextrous re quite a pensity to	n't have been more than a hand- we one); up to this point the wish- and that is the way they are still curio & a desirable commodity to fail the MOT and require complete				
21	51K3424	s being one of the favourite sacrificial items) t WELCH PLUG	nere can 2	t be many tert around now.				
22	2A4020	FULCRUM PIN, king pin to wishbone	2					
23	8G589	PLUG, screwed	2					
24 25	UHN400 2A4272	GREASE NIPPLE PIN & WASHER, inner wishbone pivot	2 4					
26	2A4272 2A4024	WASHER, special, bush retaining	4					
27	8G621	BUSH, rubber	8					
28	GHF223	NUT, nyloc	4					
		bly & King Pin						
29	HMP215012* HMP215011*	STUB AXLE & WISHBONE, LH STUB AXLE & WISHBONE, RH	1 1	exchange				
*A s		e assembly consists of a new king pin kit fitte		exchange conditioned stub axle (with bush-				
es r all y	eamed accordingly) ou have to do is att	, attached by a new fulcrum pin to a new wi lach it to the car!	shbone. I	lo tricky assembling to be done -				
30	BTA745	STUB AXLE, LH	1	new				
31	BTA745E*	STUB AXLE, LH	1	reconditioned, exchange				
	BTA744 BTA744E*	STUB AXLE, RH STUB AXLE. RH	1 1	new reconditioned, exchange				
	econditioned stub a	xle is supplied as a sub-assembly, complete						
fitte 32	d and reamed to su LN30041	it) GREASE NIPPLE, stub axle, lower	2					
33	UHN445	GREASE NIPPLE, stub axle, lower	2					
35	GSJ230	KING PIN KIT, for one side	2					
00	QHQP624TCF	KING PIN KIT, car set	1					
36 37	2A4206 2A4205	CORK SEAL, large CORK SEAL, small	2 2					
38	51K1769	COTTER PIN	2					
39	WL700101	WASHER, locking	2					
40 41	GHF206 BTA613	NUT SEALING RING Tower	2 2					
41	BTA607	SEALING RING, lower SEALING RING, upper	2					
13	21/1001	THRUST WASHED	2					

"Contrary to the usual outcome of adding shims to an assembly, these shims should be added to loosen the king pin and taken away to tighten it (a sufficient quantity of shims are supplied in king pin kits and reconditioned stub axles). The procedure is to fit an 0.008" and a 0.012" shim over the thrust washer, fit the top trunnion and tighten down the top nut (if you intend to fit a nyloc nut upon assembly on the car, use your old nut now for this test fitting). Resistance should just be felt when the stub axle is turned on the king pin and there should be no obvious vertical play. If this isn't the case, add or subtract shims until you are satisfied. (Continued)

a/r

a/r

a/r

2

2

alternative to items 45 & 46

THRUST WASHER

SHIM, 0.012"

SHIM, 0.008"

SHIM, 0.003"

NUT, slotted

SPLIT PIN

NUT, nyloc

2A4006

2A4008\*

2A4007\*

2A4168\*

GHF503

GHF224

ND607041

43

44

	Part Number	Description	Qty. <i>Details</i>	
No			Ren	

#### (Continued from previous column)

Too much play, on the one hand, and you'll fail the MOT. On the other hand, too much resistance and the self centring effect of the steering will be lost - at the least disconcerting, if not dangerous.

47 50 51 52 53 54 55 56 57 60	18G1006A 2A4005 2A4028 88G274 ND606041 GHF502 BTA606 6K653 2A4010 BTA649 BTA648 AHA9958 AHA9957 53K1370 ATA4132 2K5377	REAMING TOOL, king pin bushes TOP TRUNNION PIN, trunnion link to shock absorber BUSH, rubber NUT, slotted SPLIT PIN DUST EXCLUDER, lower SPRING DUST EXCLUDER, upper STEERING ARM, LH STEERING ARM, LH STEERING ARM, RH STEERING ARM, RH BOLT, arm securing, short BOLT, arm securing, long LOCK TAB	1 2 4 2 2 2 2 2 1 1 1 1 2 2 2 2 2 2 2 2	G-AN4; to G-AN5-114642; H-AN9; H-AN10; A-AN10 G-AN5-114643 on; G-AN6
Wh	eel Hubs			
65 66 67 68 69	BTA1254 BTA339 88G322 AHA8785 2A4067	HUB ASSEMBLY STUD NUT, plain (steel wheels) (not Rostyle) NUT, chrome plated (Rostyle wheels) GREASE CAP	2 8 8 8 2	for steel wheels only
75 76	BTA687 BTA686 BTC392	HUB, LH HUB, RH GREASE CAP	1 1 2	for wire wheels only
81 82 83 84 85 86 87	GHK1142 GHS142 GHB129 GHB128 88G321 2A4003 51K328 GHF504	WHEEL BEARING KIT, front OIL SEAL BEARING, inner BEARING, outer SPACER WASHER, special NUT, hub SPLIT PIN	2 2 2 2 2 2 2 2	

#### Anti Roll Bar

See also 'Performance & Tuning' in Accessories for Uprated Suspension Kits & Conversions.

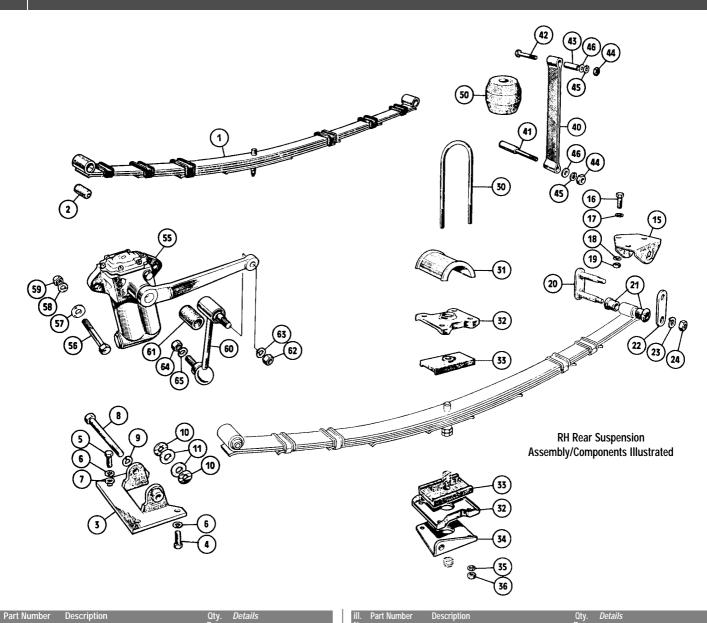
90	AHA7013	ANTI ROLL BAR, standard size	1	
91	AHA7012A	LINK ASSEMBLY, LH	1	bar to wishbone
	AHA7011A	LINK ASSEMBLY, RH	1	]
92	GHF334	WASHER, locking	4	
93	GHF203	NUT	4	
94	AHA7028	BRACKET, link to wishbone	2	
95	SH605061	SCREW, bracket securing	6	
96	GHF332	WASHER, locking	6	
97	GHF201	NUT	6	
99	AHH6546K	END STOP KIT	2	1
100	AHH6546	END STOP (limits lateral play of bar)	4	
101	PMZ307	SCREW	4	use with standard bar
102	WL700101	WASHER, locking	4	
103	GHF206	NUT	4	
105	AHH6541	BUSH, rubber	2	
106	BHH2000	STRAP, bush mounting	2	
107	SH605051	SCREW	4	
108	GHF332	WASHER, locking	4	

#### **Removing The Front Suspension**

It is considerably easier to dismantle the old suspension unit (consisting of the wishbone, king pin and shock absorber) and assemble the new one on a workshop bench, rather than working within the confines of a cramped front wheel arch. Sprites & Midgets are among many car designs where this act of comparative working luxury may be carried out.

Removal of the suspension unit may be carried out thus:

Undo the brake caliper from the swivel axle, then tie it up under the wheel arch so that it doesn't hang from its hose. Supporting the wishbone securely with a trolley jack, undo the bolts holding the shock absorber to the car body. Pull the shock absorber out from under the wheel arch and let the jack down slowly, so that the wishbone pivots down to a near vertical position. Remove the road spring (no need for spring compressors here) and then undo the wishbone inner pivot bolts. Remove the suspension unit from the car. It's really that simple. Refitting is the exact reverse of the above procedure.



No			Req.		No			Req.	
Re	ar Suspension	n			20	AHA7686	PLATE & PINS, shackle	2	
	•	e & Tuning' in Accessories for Uprated Sus	nension & Co	nnversion Kits	21	AHA7182	BUSH	8	
001	also i criormanec	a running in riccessories for opraida sus	J01131011 W 00	THE SIGN TAILS.	22	AHA7687	PLATE, shackle	2	
	SFK103	FITTING KIT, rear springs	1 1	Includes items 21, 24, 30,	23	GHF333	WASHER, locking	4	
	OTTOO	Tirrinta rar, roai opringo		33, 36 for two springs	24	GHF202	NUT	4	
				oo, oo tor two springs	30	AHA8097	U BOLT, spring to axle	4	
1	AHA8093	ROAD SPRING, rear	2	G-AN4; G-AN5; H-AN9;	31	21G5165	SADDLE, U bolt	2	
•	7 11 17 10 00 0	Tionib of filled, roal	-	H-AN10; A-AN10	32	ACA5139	PLATE, locating	4	
					33	ACA5138	PAD, seating	4	
	CHA493	ROAD SPRING, rear	2	G-AN6			, 0		
2	AAA629	EYE BUSH	2		34	AHA7172	BRACKET, RH	1	shock absorber link
						AHA7173	BRACKET, LH	1 .	
3	AHA7174	FRONT BRACKET	2	rear spring mounting	35	GHF302	WASHER, plain	8	
4	SH606101	SCREW, bracket to floor (rear)	4	7 3 3	36	GHF223	NUT, nyloc	8	
5	SH606071	SCREW, bracket to floor (front)	4						
6	GHF333	WASHER, locking	8		40	AHH5081	STRAP, rebound	2	G-AN4; G-AN5; H-AN9;
7	GHF302	WASHER, plain	4						H-AN10; A-AN10
8	AHA7180	BOLT (spring to front bracket)	2						
9	GHF334	WASHER, locking	2			BHH989	STRAP, rebound	2	G-AN6
10	AHA7178	WASHER, spacing (metal)	4		41	HMP215014	PIN (mounting strap to axle)	2	weld to axle case (replace
11	AHA7179	WASHER, nylon	4		42	BH606301	BOLT (strap to shock absorber bracket)	2	
15	AHA7201	REAR BRACKET	2	rear spring mounting					
16	SH605071	SCREW (bracket to boot floor)	6		43	2A7306	TUBE, spacer	2	
17	GHF301	WASHER, plain	6		44	GHF202	NUT	4	
18	GHF332	WASHER, locking	6		45	GHF333	WASHER, locking	4	
19	GHF201	NUT	6		46	PWZ206	WASHER, plain	4	
					50	AHH9158	BUMP STOP, rubber	2	

ill. No	Part Number	Description	Qty. Reg.	Details
55	GSA149	SHOCK ABSORBER, RH	1	new
	GSA149E	SHOCK ABSORBER, RH	1	recon, exchange
	GSA150	SHOCK ABSORBER, LH	1	new
	GSA150E	SHOCK ABSORBER, LH	1	recon, exchange
56	SH606121	BOLT, shock absorber to bracket	4	
57	GHF302	WASHER, plain (small diameter)	4	
		· · · · · · · · · · · · · · · · · · ·		
58	PWZ206	WASHER, plain (large diameter)	4	
59	GHF223	NUT, nyloc	4	
60	AAU1949A	LINK ASSEMBLY	2	shock absorber to spring
61	97H222	BUSH, upper, link	2	
62	FNZ507	NUT (link to shock absorber arm)	2	
63	GHF334	WASHER, locking	2	
64	FNZ508	NUT. link to bracket	2	
65	GHF335	WASHER, locking	2	
00	ai ii 000	The locality	-	

### Hints for Suspension Assembly

It is suggested that you should always have a tin of copper grease or anti-seize compound around when carrying out the re-assembly of suspension components. A dab of grease on all threads (and inside any rubber bushes with steel inserts) will ensure ease of removal in the future.

Whilst on the subject of hardware, new nuts, bolts & washers should be used for re-assembly if possible; emphasis should be applied to renewing locking or shakeproof washers (spring or star washers). Nyloc nuts should never, ever be reused, especially in safety related areas like suspension.

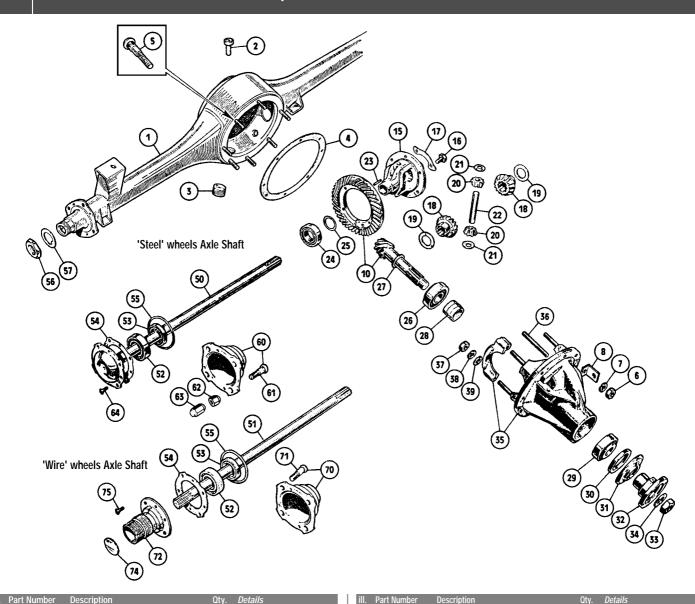
Don't over tighten nuts or bolts holding rubber pivot bushes in place; correct torque settings are published in factory & aftermarket workshop manuals and should be adhered to.

If a bush is clamped down too tightly, it will not be able to insulate against shocks or provide the correct degree of pliability. Worse than this, it will effectively be half seized, and it won't take long to seize up completely. The result will be a broken pivot or undue wear on the components the bush is in contact with, possibly weeks or even only days later.

New lever arm shock absorbers (the type fitted as standard to all Sprites & Midgets) require priming before offering up to the car. This means holding the shock absorber at the angle it would normally be when on the car, working the arm from one extreme of its travel to the other until all of the 'dead spots' you feel in the arm's movement have disappeared.

You may appreciate that working several times from end stop to end stop is not normally encountered by the shock absorber when fitted to the car; as a consequence, it may take some time to fully prime itself if the task has not been carried out beforehand.





No	) Fait Nullibei	Description	Req.	Details	No	rait Nullibei	Description	Req.	Details
Re	ar Axle & Axle	Case				BTA551	DIFFERENTIAL, 3.7:1 ratio, new	1	]
						BTA551E	DIFFERENTIAL, 3.7:1 ratio	1	from G-AN6-200001
1	BTA694	AXLE CASE, for steel wheels	1 ]	G-AN4; G-AN5; to			(exchange, reconditioned)		
	BTA695	AXLE CASE, for wire wheels	1	G-AN6-182000;		BTA535	CROWN WHEEL & PINION, 3.7:1	1 .	
			j	H-AN9; H-AN10; A-AN10	15	ATA7036	CAGE, differential	1	
	DAM2483	AXLE CASE, for steel wheels	1 ]	from G-AN6-182001	16	ATA7043	BOLT (crown wheel to differential cage)	6	
	DAM2484	AXLE CASE, for wire wheels	1 ]		17	ATA7044	LOCK TAB	3	
2	21H6060	BREATHER	1		18	ATA7037	SUN WHEEL	2	
3	6K499	PLUG (filler & drain)	2		19	ATA7039	THRUST WASHER, sun wheel	2	
4	2A7027	GASKET	1 ]	differential to	20	2A7015	PLANET GEAR	2	
5	2A7226	STUD	8 ]	axle case	21	2A7062	THRUST WASHER, planet gear	2	
6	GHF201	NUT	8		22	2A7016	CROSS PIN, planet gears	1	
7	GHF332	WASHER, locking	8		23	6K631	PEG, locking cross pin	1	
8	AHH6752	BRACKET (hand brake cable support)	1	from G-AN6-182001	24	2K5943	BEARING, differential	2	
					25	2K7779	SHIM, bearing (0.002")	a/r	
Di	fferential					ATA7269	SHIM, bearing (0.003")	a/r	
٥.	iioi oiitiai					2K7778	SHIM, bearing (0.004")	a/r	
	STR520EX	DIFFERENTIAL, 3.55:1	1 1	as fitted to '64 on		2A7271	SHIM, bearing (0.010")	a/r	
	OTHOLOLA	(exchange, reconditioned)	٠ ا	Midgets	26	ATA7166A	BEARING, pinion, inner	1	
	STR520	CROWN WHEEL & PINION, 3.55:1	1 ]	(alternative)	27	ATA7123	THRUST WASHER, pinion (0.130")	1	
	BTA550	DIFFERENTIAL, 4.22:1 ratio, new	1 1	,		ATA7124	THRUST WASHER, pinion (0.128")	1	
	BTA550E	DIFFERENTIAL, 4.22:1 ratio	i	To G-AN4-66225:		ATA7125	THRUST WASHER, pinion (0.126")	1	
	DINOCOL	(exchange, reconditioned)	٠ ا	to H-AN9-77590		ATA7126	THRUST WASHER, pinion (0.124")	1	alternative sizes
10	BTA539	CROWN WHEEL & PINION, 4.22:1	1 ]			ATA7127	THRUST WASHER, pinion (0.122")	1	use one only
	BTA1222	DIFFERENTIAL, 3.9:1 ratio, new	1 1	G-AN4-66226 on:		ATA7128	THRUST WASHER, pinion (0.120")	1	
	BTA1222E	DIFFERENTIAL, 3.9:1 ratio	i	G-AN5: to G-AN6-200000:		ATA7129	THRUST WASHER, pinion (0.118")	1	
		(exchange, reconditioned)	il	H-AN9-77591 on:		ATA7130	THRUST WASHER, pinion ( 0.116")	1 .	
	BTA1223	CROWN WHEEL & PINION, 3.9:1	1	H-AN10; A-AN10	28	BTA532	SPACER, collapsible	1	
		- , <del>- , - , - , - , - , - , - , - , - ,</del>		, .		BTA532X	SPACER, non-collapsible (replacement)	1	read technical notes page 137

ill. No	Part Number	Description	Qty. <i>Details</i> Reg.
29	BTB440	BEARING, pinion, outer	1
30	88G320	OIL SEAL	1
31	1G7439	DUST COVER	1
32	ATA7056	DRIVE FLANGE, input	1
33	FNN612	NUT, drive flange to pinion	1
34	WL600121	WASHER, locking	1
35	BTA549	CARRIER ASSEMBLY	1
36	51K886	STUD, bearing cap	4
37	GHF203	NUT	4
38	GHF334	WASHER, locking	4
39	GHF303	WASHER, plain	4
		• •	

#### Collapsible & Non-Collapsible (Solid) Spacers

Pinion bearing pre-load was originally set by the use of a collapsible spacer between the two bearings.

The correct pinion bearing pre-load is achieved when a rotational torque of between 11 & 13 pound inches (lbs. ins.) is required to rotate the pinion in the differential housing. This figure should only be checked when the seal is not fitted. It is attainable only when the pinion nut has been tightened sufficiently to 'nip' or pre-load the two bearings. It is not acceptable to over tighten the pinion nut and slack it off to obtain the correct bearing pre-load; if the spacer is over compressed then it must be scrapped, and a new one fitted.

The differential pinion may have had, at some time in its life, a solid spacer and shims fitted instead of the collapsible spacer; this is not uncommon.

The solid spacer system was utilised on the similar differential fitted to Morris Minor cars up to around 1959; after that the collapsible spacer system was used. The collapsible spacer is a far quicker (& therefore cheaper) method of obtaining pinion bearing pre-load and was adopted by many motor manufacturers.

Installing the solid spacer and shim system is time consuming because the entire assembled pinion must be fitted, tested, stripped and reassembled to adjust the bearing pre-load by the addition or subtraction of shims. Once set in this way the pinion bearing pre-load is impossible to change.

Conversely, the collapsible spacer system can be adjusted after fitting if the pinion nut is removed and then refitted at a different torque setting. This means that service replacement of the differential pinion oil seal must be done with care, especially when refitting and re-torqueing the pinion flange nut.

A solid bearing spacer is offered for those who wish to convert to the more permanent solid spacer system. The solid spacer is part number BTA532X. Four different thickness adjusting shims are available as listed here.

140790	SHIM (0.030")	a/r
140791	SHIM (0.010")	a/r
140792	SHIM (0.005")	a/r
140793	SHIM (0.003")	a/r

# Half Shafts & Hubs

Hal	f Shafts & Hub	)S		
50	BTA806	DRIVE SHAFT ASSEMBLY	2	for steel wheels only
51	BTA807	DRIVE SHAFT ASSEMBLY	2	for wire wheels only
	GHK1143	BEARING KIT, rear hub	2	
52	GHB130	BEARING, rear hub	2	
53	GHS147	OIL SEAL, rear hub bearing	2	
54	GFG110	GASKET, drive shaft flange to hub	2	
55	ATA7225	O' RING	2	
56	2A7103	NUT, hub bearing retaining	1	RH thread
	1G3584	NUT, hub bearing retaining	1	LH thread
57	2A7250	LOCK TAB	2	
60	2A7087	HUB ASSEMBLY	2 ]	
61	2A7089	STUD, wheel	8	
62	88G322	NUT, plain steel wheels (not Rostyle)	8	for steel wheels only
63	AHA8785	NUT, chrome plated (Rostyle wheels)	8	
64	SF604051	SCREW (drive shaft flange to hub)	2	
70	BTA490	HUB ASSEMBLY	2 ]	
71	BTA492	STUD, wheel	8	
72	BTA688	ADAPTOR, wire wheel, RH	1	for wire wheels only
	BTA689	ADAPTOR, wire wheel, LH	1	
74	2K8160	PLUG, (welch)	2	
75	SF604051	SCREW (wire wheel adaptor to hub)	2 ]	

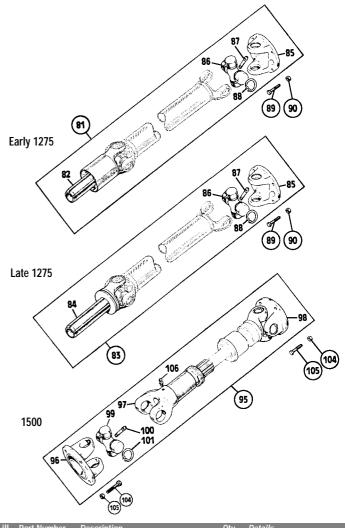
#### Different(ial) Noises

A well respected former employee of MG at the Abingdon works always reminisces, when prompted to do so, about the period in 1973 when workers at the Dunlop tyre factory in Birmingham were indulging in a lengthy spell of industrial action. As a result, new Midget wheels with tyres, became increasingly scarce at Abingdon. Finally it got to the point where in order to keep the Midget production line running, wheels were rationed to four per car - in other words, enough to roll the cars off the end of the line, but without spare tyres.

About the same time, a terrible warranty problem was experienced with Midget rear axles. Almost every new car, upon returning from the customary scenic test drive around Abingdon, was being sent to the rectification bay with the observation 'noisy diff'. Just a bad batch of differentials, perhaps? Axles from another production batch were tried on some of the cars, but to no avail. Axles were quickly stripped and inspected, each providing the same result: no fault found.

History doesn't record the time it took to link 'lack of spare tyre' and 'noisy diff' together, but at some point the penny dropped. Without spare tyres fastened to them, the Midget boot floors were reverberating in a manner that sounded just like a faulty differential.

Just remember this when your differential has, all of a sudden, started to make the kind of noise that scares your cheque-book witless!



ill. No	Part Number	Description	Qty. Req.	Details
127	75 Propshaft	(G-AN4, G-AN5, H-AN9, H-AN10, A-AN10)		
81	2A7272	PROPSHAFT, new	1 ]	
	2A7272E	PROPSHAFT, recon, exchange	1	Early G-AN4 and H-AN9
82	17H3894	YOKE, front, with sleeve	1 ]	
83	AHA9053	PROPSHAFT, new	1 ]	
	AHA9053E	PROPSHAFT, reconditioned	1	Later G-AN4 and H-AN9;
		exchange		G-AN5; H-AN10; A-AN10
84	37H4149	YOKE, front, plain	1 ]	
85	7H3863	YOKE, rear, with drive flange	1	
86	GUJ115	UNIVERSAL JOINT	2	greasable joint
	GUJ101	UNIVERSAL JOINT	2	sealed alternative
87	144825	GREASE NIPPLE, for GUJ115	2	
88	144101	CIRCLIP, universal joint retaining	8	
89	BH605101	BOLT	4	propshaft to diff input flange
90	GHF222	NUT, nyloc	4	
150	00 Propshaft	(G-AN6)		
95	CHA336	PROPSHAFT, new	1	

PROPSHAFT, recon, exchange

YOKE, front, sliding

UNIVERSAL JOINT

UNIVERSAL JOINT

NUT, nyloc

NUT, nyloc

GREASE NIPPLE

YOKE, front (with drive flange)

YOKE, rear (with drive flange)

GREASE NIPPLE, for GUJ115

BOLT (propshaft to diff input flange)

BOLT (propshaft to g/box output flange)

CIRCLIP (universal joint retaining)

areasable ioint

sealed alternative

for sliding yoke

CHA336F

37H4973

7H3865

7H3863

GUJ115

GU.1101

101 144101

103 GHF222

104 144961A

105 GHF273

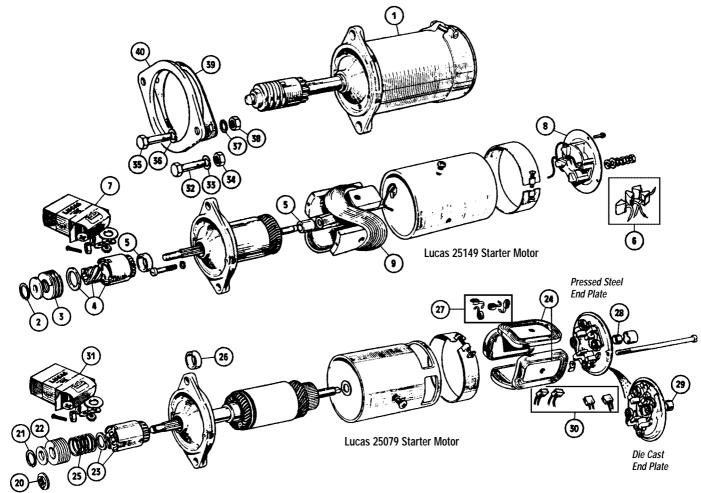
106 UHN400

102 BH605101

98

99

100 144825



ill. Part Number Description		Details
No	Req.	

### **Starter Motors**

Sprites and Midgets were all fitted with Lucas starter motors.

Lucas developed the starter throughout the production life of the cars; the net result was two starter motors of clearly different construction which were, in fact, interchangeable. They may be identified by the following.

# Lucas Type M35G (original MG part no. 13H559):

Stamped with Lucas no. 25079, plus suffix between A and H.

# Lucas Type M35J (original MG part no. 13H5798):

Stamped with Lucas no. 25149.

The factory has now replaced the early design (which had radial brushes contacting a 'side' commutator) by an all-variants-encompassing starter motor of the later design (with axial brushes contacting a 'face' commutator).

# (Inertia Starter Motor)

1	GEU9405	STARTER MOTOR, New	1	1	All Models
	GXE4405	Starter Motor, exchange, recon	1		

# (Pre-Engaged Starter Motor)

GXE4405X \*Starter Motor (New) 1 All Models

\*These brand new (non-exchange) powerful Pre-Engaged (Geared) starter motors are High Torque, meaning they will not suffer the same fate as the original 'Inertia' type, especially on high compression engines and, they are a direct replacement. No more costly motor rebuilds or excessive battery drain.

# Lucas 25149 Starter Motor

Note: If you wish to repair your own starter motor, you must identify which type is fitted prior to ordering spares for it. The following is a parts breakdown by Lucas model type.

2 3 4	519813 7H5045 BAU5781 67H5010	CLIP, retaining mechanism on shaft SPRING PINION BARREL & SCREW (10 tooth) PINION BARREL & SCREW (9 tooth)	1 1 1 alternatives
5	519812	BUSH SET, front & rear	1
6	GSB105	BRUSH SET	1
7	519566	SUNDRY PARTS KIT	1
8	37H4672	END PLATE	1
9	AAU9326	FIELD COIL SET	1

ill. No	Part Number	Description	Qty. Reg.	Details						
Luc	Lucas 25079 Starter Motor									
20 21 22 23 24 25 26 27	508548 519813 7H5045 BAU5781 67H5010 37H7502 501711 47H5346 509819A	NUT, retaining mechanism on shaft CLIP, retaining mechanism on shaft SPRING PINION, BARREL & SCREW (10 tooth) PINION, BARREL & SCREW (9 tooth) FIELD COIL SET SPRING BUSH, driving end SPRING SET	1 ] 1 1 1 1 1 1 1 1 1 1	alternatives; as fitted alternatives						
28 29 30 31 <b>Sta</b>	511141 GSB102 070391	BUSH (for Pressed end plate) BUSH (for Die cast end plate) BRUSH SET SUNDRY PARTS KIT	1 1 1 1	commutator end						
32 33 34 35 36 37 38 39 40	BH606131 GHF333 GHF202 BH606181 GHF333 WE600061 GHF202 UKC1770 131570	BOLT (starter & gearbox to engine) WASHER, locking NUT BOLT (starter & gearbox to engine) WASHER, locking WASHER, shakeproof NUT SHIM, 1/16" (starter bendix position) MOUNTING SPACER	2 2 2 2 2 2 a/r 1	G-AN4; G-AN5; H-AN9; H-AN10; A-AN10 G-AN6						

ill. Part Number Description Oty. Details

#### Stopping Trouble - before the Starter Stops

A starter motor often provides warnings in the form of jamming, slow cranking, or intermittent operation, before it fails completely. Obviously it is in the owner's interests to confront any problems before they become terminal.

Having removed the starter from the car, it can be carefully dismantled on a work surface & the possible causes for impending failure investigated. Resist the temptation to submerge the unit in cleaning fluid; doing so would probably result in the purchase of a new starter, since fluid will transfer copper dust from inside the motor to the electrical windings, causing a short circuit. Dust may be removed by compressed air and wiping with a rag dampened with cleaning fluid.

The starter bendix gear can be cleaned and then inspected both for damage and spring return operation. If faulty, the sub assembly can be replaced.

The shaft bushes pressed into the front and rear end plates of the motor should be renewed if necessary. These are 'Oilite' bushes, which should be immersed in light engine oil for 24 hours prior to fitting (the bush material absorbs the oil, to give prolonged lubrication). 'Old lags' of the starter reconditioning trade have jam jars filled with oil and bushes awaiting use. Excess oil must be wiped away upon installation of the bushes (which is achieved by pressing, not hammering!).

Carbon brush replacement, if necessary, can be effected by soldering the replacements to the commutator end shield brush contacts - not hard, just fiddly.

The copper wire windings and insulation of the armature and commutator assembly should be inspected (the commutator is the segmented copper collar contacted by the carbon brushes at one end of the armature). The contact surface must be clean, smooth and concentric to the armature axis. A dirty commutator can be cleaned by wiping with a petrol moistened cloth, then lightly polished with very fine glass paper. If the commutator is not true or excessively scored, it will need to be turned at high speed in a lathe and machined with a very sharp tool. Not everyone has such equipment to hand (!), but most people know of someone who has. The lightest of possible cuts should be made on the lathe to 'true up' the contact area. A very light polish after turning with very fine glass paper is recommended. Under no circumstances should the insulation material between the copper segments of the commutator be undercut.

Re-assembly of the starter is the reverse of disassembly. The factory workshop manual may be consulted for any further information.

Before refitting to the car, the motor must be tested. Secure the starter motor body carefully in a vice and test it by connecting it with heavy gauge cables (jump leads are ideal) to a 12 volt battery. Connect one cable to the starter terminal, the other should be held against the drive end bracket. The starter should run at high speed under these light load conditions. Upon rotation, the bendix gear should move axially along the armature shaft towards the motor itself. When the power is removed and the motor stops, the gear should return to its original position at the outer end of the shaft.

# Important Notes for Battery Lead/Terminal Positions

Sprites and Midgets started life with a positive earth electrical system. This was changed to negative earth in November 1967 (at G-AN4-60460 and H-AN9-72041), resulting in the battery terminal polarities being switched (this was achieved by a battery with a different terminal layout).

When the Midget 1500 was introduced at G-AN6-154101, the battery terminal layout again had to be revised. The car retained a negative earth system but the terminals had to return to their original positions. This was because the 1500cc Triumph-sourced power unit had the starter motor fitted to the left side of the engine, as opposed to the BMC 'A' series unit with its starter on the right side.

The body earth point for the battery is always on the left side of the bulkhead on the chrome bumper cars, and on the right side of the bulkhead on the rubber bumper cars. When the correct battery is fitted, the terminals should be nearer the bulkhead than the heater.

Sketches of the two possible terminal layouts for batteries are shown on the RH side of this page.

# 

	Part Number	Description	Qty.	Details
No			Reg	

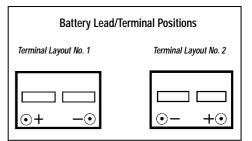
### **Battery & Fittings**

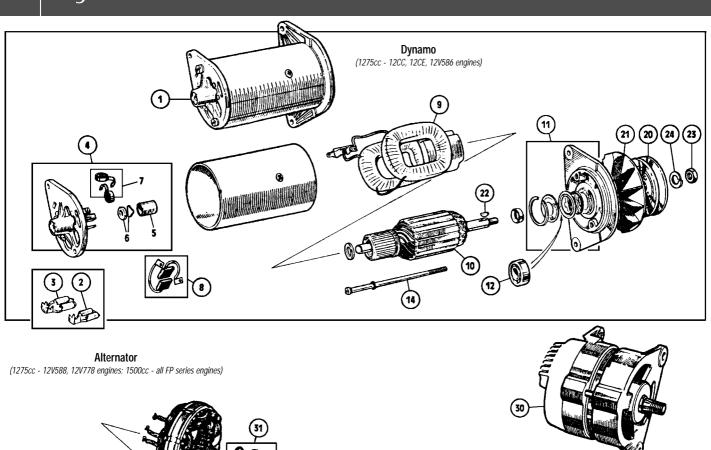
# Standard Output Batteries (Original layout)

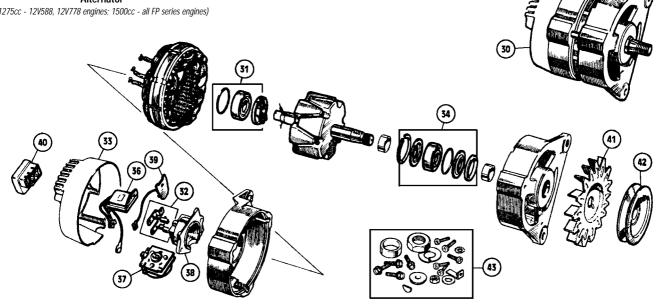
50	GBY5601W	BATTERY, wet (originally layout 1)	1 ] to G-AN4-60459;
	GBY5601D	BATTERY, dry (originally layout 1)	1 to H-AN9-72040
		(+LHF/-RHF, 36amp)	(positive earth)
	GBY015	BATTERY, wet (originally layout 2)	1 ] G-AN4-60460 on; G-AN5; H-AN9-72041 on; H-AN10; A-AN10 (negative earth)
		(45amp)	H-AN9-72041 on; H-AN10;
			A-AN10 (negative earth)
	GBY5601W	BATTERY, wet (originally layout 1)	1 ] <i>G-AN6</i>
	GBY5601D	BATTERY, dry (originally layout 1)	1 (negative earth)
		(+LHF/-RHF, 36amp)	]

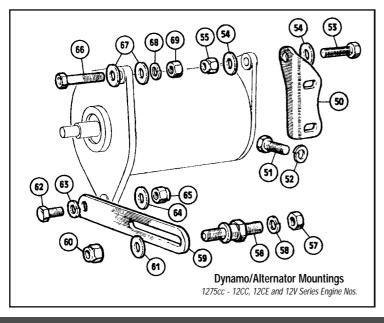
#### Classic & Uprated/Heavy Duty Batteries (Alternative layout)

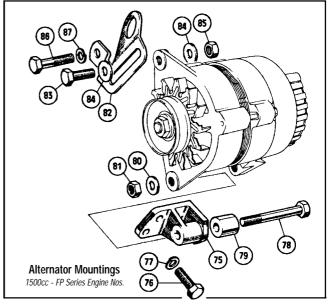
50	GBY137	CLASSIC BATTERY (rubber case)	1 1	
30	ubi ioi	(+RHF, 40amp)	'	
	GBY138	CLASSIC BATTERY (rubber case)	1 ]	
	UD1130	(+LHF, 40amp)	'	
	GBY165	CLASSIC BATTERY (rubber case)	1	4Eamp
	GBY291	CLASSIC BATTERY (rubber case)	1	45amp 60amp
	UD1291	CLASSIC BATTERT (Tubbel Case)	- 1	очатр
51	CRST191	DECAL, 'Lucas'	1	
52	AHA6305	TRAY (battery acid spillage)	1 ]	
53	AHA6934	CLAMP BAR, battery fixing	1	Positive earth vehicles
54	AHA7769	'J' BOLT (clamp to side of battery shelf)	2	
55	ACA9673	TRAY (battery acid spillage)	1 ]	
56	34G2065	CLAMP BAR, battery fixing	1	Negative earth vehicles
57	AHA8674	'J' BOLT (clamp to side of battery shelf)	2	•
58	GHF200	NUT, plain	2 ]	alternatives
59	132068	WING NUT	2	
60	WP127	WASHER, plain	2	
61	GHF331	WASHER, locking	2	
62	37H3743	PACKING, rubber (clamp bar to battery)	1	
65	1B2802	CABLE, earth	1 1	
		(positive terminal to bulkhead)		Positive earth cars
66	BHA4257	CABLE	1	
		(negative terminal to starter solenoid)	]	
	AHA8697	CABLE, earth	1 ]	
		(negative terminal to bulkhead)		Negative earth cars
	BHA5062	CABLE,	1	
		(positive terminal to starter solenoid)	]	
67	SH605041	SCREW (earth cable to bulkhead)	1	
68	GHF332	WASHER, locking	1	
69	AHA7776	CABLE (starter solenoid to starter)	1 ]	
70	2K6167	CABLE, earth (power unit to body)	1	G-AN4; G-AN5;
71	SH606051	SCREW (power unit earth cable to floor)	1	H-AN9; H-AN10; A-AN10
72	GHF333	WASHER, locking	1 ]	
	AHA7776	CABLE (starter solenoid to starter)	1 ]	G-AN6
	AHH5452	CABLE, earth (power unit to body)	1 ]	
80	8G548	GAITER, terminal insulating	a/r	
81	PCR807	'P' CLIP, cable to footwell	a/r ]	cable from battery
82	AHH6690	'P' CLIP (cable & capillary to footwell)	a/r	to starter solenoid
83	2K8645	SCREW, battery cable to terminal	2	original cables only
	Clamp & ring termin	nals are available to replace worn or corroded ca	able tern	ninals of the original 'lead cap' type:
85	GHF2750	CLAMP TERMINAL, negative	a/r ]	
	GHF2755	CLAMP TERMINAL, positive	a/r	alternatives -
86	518903	BOLT, clamp terminal	a/r	for repair purpose
07	CUEDOO	MIIT alama tarminal	0/5	











ill. No	Part Number	Description	Qty. Req.	Details

#### Dynamo

(1275cc - 12CC, 12CE, 12V586 engines) Original fitment dynamos are identified as follows;

MG No. 13H826 Stamped with Lucas no. 22742

MG No. 13H219 Stamped with Lucas no. 22700 (plus suffix between A and M)

MG No. 13H4813 Stamped with Lucas no. 22775

All of these are now replaced by one type of unit, this being,

GXE3101 DYNAMO, exchange, recon

Note: When installing a replacement dynamo, remember it must be polarised to suit the electrical system (Sprites and Midgets with dynamo charging systems can be either positive or negative earth, depending on year of manufacture). Polarisation may be effected as follows:

Fit the dynamo, without connecting it to the vehicle's electrical system. Connect one end of a length of wire to either the 'live' (i.e. not earth) terminal of the battery, or the battery lead terminal (not the starter lead) on the starter solenoid. Hold the other end of the wire against the 'Field' terminal (the smaller of the two) on the back of the dynamo for three to five seconds. Polarisation is now complete. Remove the temporary wire and connect the dynamo to the wiring harness.

2	RTC220A	CONNECTOR (1/4")	a/r	Lucar type
3	47H5419	CONNECTOR (3/8")	a/r	
4	47H5395	BRACKET, commutator end	1	
5	7H5390	BUSH (commutator end bracket)	1	
6	47H5394	OILER ASSEMBLY	1	(felt pad and plate)
7	RTC466A	SPRING, carbon brushes	2	
8	GGB102	CARBON BRUSH SET	1	
9	607141A	FIELD COIL SET	1	
10	509311A	ARMATURE ASSEMBLY	1	
11	27H7647	BRACKET, driving end	1	
12	18G8620	BEARING	1	
14	17H5217	BOLT (bracket to bracket)	2	
20	12G2102	PULLEY, dynamo driving	1	
21	17D11	FAN, cooling	1	
	37H6836	MOUNTING KIT (pulley & fan)	1	
22	WKN404	WOODRUFF KEY	1	
23	NT607041	NUT	1	
24	GHF334	WASHER, locking	1	

#### Alternator

(1275cc - 12V588, 12V778 engines; 1500cc - all FP series engines)

From 1972 (1969 in Australia) an alternator was fitted.

Originally there were two alternators, with different outputs; only a higher output unit (directly replacing the others) is now supplied. The pulley diameter was reduced in 1973 (from engine no. 12V588F3193) to increase the running speed. This improves charging at low engine speeds and is thus a good idea for earlier alternator fitted cars. A shorter fan belt (GCB10B13 instead of GCB10B3B) is peeded for the smaller nulley.

fitted cars. A shorter fan belt (GCB10813 instead of GCB10838) is needed for the smaller pulley.					
30	GXE8211	ALTERNATOR, exchange, recon	1	17 ACR type.	
31	18G8620	BEARING, rear	1		
32	GGB504	CARBON BRUSH SET	1		
33	NKC484A	COVER, rear, plastic	1		
34	18G8619	BEARING, front	1		
36	BAU4443A	REGULATOR	1	2 or 3 lead type.	
	BAU5264	REGULATOR	1	4 lead type.	
37	BAU5063	RECTIFIER	1	with 2 connections.	
	AEU4152A	RECTIFIER	1	with 3 connections.	
38	607693A	BRUSH BOX	1		
39	AEU3079A	PROTECTION DEVICE, anti-surge	1	If fitted	
40	GEU250	PLUG KIT, for wiring harness	1		
41	C37222A	FAN, cooling	1	12V588; 12V788 units	
	AAU3956A	FAN, cooling	1	all 1500 units	
42	12G1054	PULLEY, alternator driving, 2.75" dia.	1	to 12V588F3192	
	BAU1461A	PULLEY, alternator driving, 2.5" dia.	1	12V588F3193 on; 12V778	
	AEU1238	PULLEY, alternator driving	1	all 1500 units	
43	37H2258	SUNDRY PARTS KIT	1	(inc pulley nut and washer)	
		Australian cars with 15 AC alternators may have	e to fin	d local specialists to rebuild them.	
How		d a brush set or regulator.			
	GGB503	CARBON BRUSH SET	1		
	BHA4789	REGULATOR, type 4TR (4 terminals)	1	15AC alternator only	

GEU6609 REGULATOR, type 4TR (3 terminals) 1 ]
The other solution to deal with more severely damaged units is to fit the later 17ACR alternator, together with the plug kit (items 30 and 40, above). A small amount of conversion work is required, so it might be advisable to entrust the process to your local auto-electrician.

#### **Dynamo/Alternator Mountings**

1275cc - 12CC, 12CE and 12V Series Engine Nos.

50	12A526	BRACKET, rear mounting	1	dynamo fitment
	12G1053	BRACKET, rear mounting	1	alternator fitment
51	SH605061	SCREW, bracket to engine block	2	dynamo fitment
	SH605071	SCREW, bracket to engine block	2	alternator fitment
52	GHF332	WASHER, locking	2	

	ill. No	Part Number	Description	Qty. Req.	Details
	53	GHF104	BOLT, dynamo/alternator to bracket	1	
ı	54	GHF301	WASHER, plain	2	
ı	55	GHF272	NUT, nyloc	1	
ı	56	12G314	PEDESTAL (Dynamo fitment)	1 ]	adjustment
ı		12G3037	PEDESTAL (Alternator fitment)	1 ]	link mounting
ı	57	NT606041	NUT, pedestal to engine bearer plate	1	•
ı	58	GHF333	WASHER, locking	1	
ı	59	12H67	LINK (Dynamo fitment)	1 ]	adjustment
ı		2A497	LINK (Alternator fitment)	1 ]	
ı	60	GHF223	NUT, nyloc	1	adjustment link to pedestal
ı	61	GHF302	WASHER, plain	1	
ı	62	SH505091	SCREW* (link to dynamo/alternator)	1	
ı	63	GHF332	WASHER, locking	1	
ı	64	GHF301	WASHER, plain	1	
ı	65	JN2158	NUT*, locking	1	
ı	66	BH605141	BOLT (dynamo to water pump)	1	dynamo fitment
ı		GHF121	BOLT (alternator to water pump)	1	alternator fitment
ı	67	GHF301	WASHER, plain	2	
ı	68	GHF332	WASHER, locking	1	
	69	GHF201	NUT	1	
1		*F4		L - !1	

\*Factory alternators are now supplied with metric versions of the items asterisked \*.

#### Alternator Mountings

AII	Alternator wountings				
150	00cc - FP Series E	ngine Nos.			
75	147899	BRACKET, mounting	1		
76	GHF103	SCREW (bracket to engine block)	2		
77	GHF332	WASHER, locking	2		
78	BH605401A	BOLT, alternator to bracket	1		
79	147483	DISTANCE TUBE	1		
80	WP139	WASHER, plain	1		
81	GHF242	NUT, self locking	1		
82	156464	LINK, adjustment	1		
83	GHF163	SCREW*, link to alternator	1		
84	WP17	WASHER, plain	2		
85	JN2158	NUT*, locking	1		
86	BH605181	BOLT (link to thermostat housing)	1		
87	GHF332	WASHER, locking	1		

\*Factory alternators are now supplied with metric versions of the items asterisked.

# **Charging Faults on Dynamo Fitted Cars**

All too often the dynamo and the voltage control box are both replaced, when only one needed to be, to cure a charging fault. It is not impossible to test the dynamo on the car to ascertain whether it or the control box is unserviceable, thus potentially saving the cost of one replacement unit. This may be done using the following procedure.

- 1. Check the fan belt for correct tension and battery condition.
- 2. Wiring continuity and connections between the dynamo and regulator must be checked:
- the brown/yellow wire with the larger 'Lucar' (spade) connector runs between the large dynamo terminal and the control box 'D' terminal. The brown/green wire with the smaller 'Lucar' connector runs to the 'F' terminal on the control box. Renew any connectors or wires found to be faulty.

The next stages require a 'moving coil' voltmeter with full a scale reading of 0-20 volts.

- **3.** Turn off all auxiliary switches: for example lights, heater, radio etc. Disconnect from the dynamo and insulate both 'Lucar' connector fitted wires (to prevent a possible short circuit).
- 4. Connect a length of wire between the two terminals on the dynamo.
- 5. Start the engine and run at normal idling speed. Connect the voltmeter between a good earth on the dynamo mounting yoke and one of the dynamo terminals. Take care to observe the correct polarity of the voltmeter with respect to the car or it may be damaged.
- 6. Carefully and gradually increase the engine speed. Do not race the engine in an attempt to increase the voltage indication. See that the voltmeter reading does not reach 20 volts; it should rise without fluctuation, with the engine speed. If this is so, the dynamo is probably not faulty.

If there is no reading, check the dynamo brush gear and wiring connections.

If the reading is low (approximately 1/2 to 1 volt), the dynamo field windings may be faulty. If the reading is approximately 4 to 5 volts, the dynamo armature windings may be faulty.

- 7 Ston The engine
- 8. If the dynamo is found to be in good order, leave the temporary link wire connected to the dynamo. Disconnect the 'F' & 'D' terminal wires at the control box. Reconnect the two 'Lucar' terminals to the dynamo. Connect one probe of the voltmeter to the wire that was connected to the 'D' terminal of the control box, the other to a good bodywork earth. Repeat step 6.
- 9. Attach the probes of the voltmeter between the earth (as before) and the end of the wire which was connected to the control box 'F' terminal. Repeat step 6 once more.

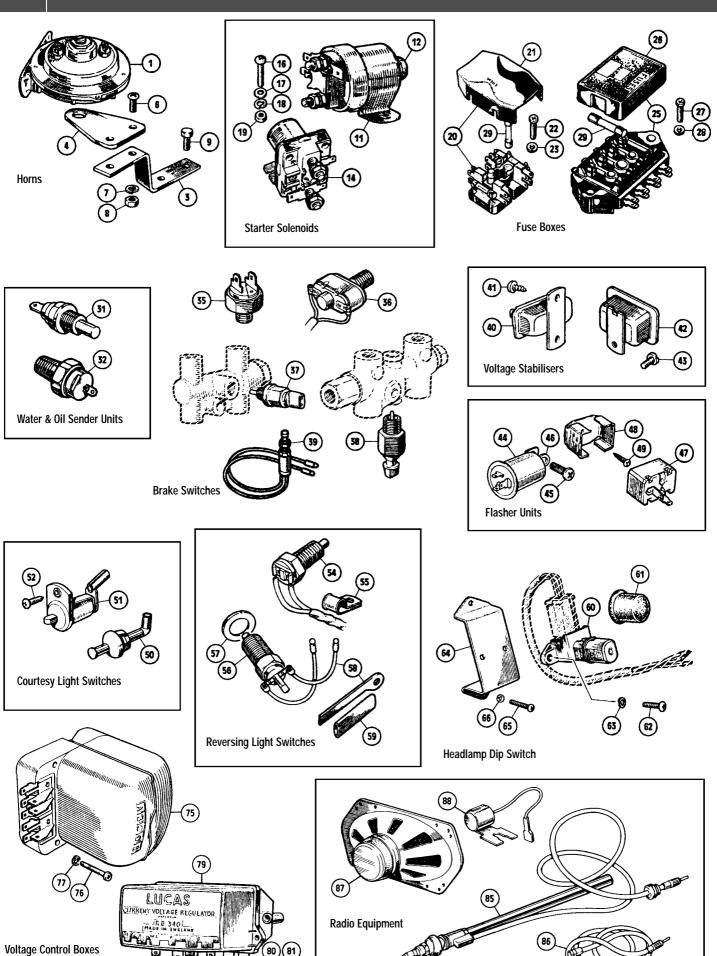
If the results of steps 8 & 9 are not the same as step 6, suspect faulty wiring between the dynamo and the control box.

**10.** Stop the engine. Remove the temporary wire connection from the dynamo terminals. Reinstate the wiring correctly to the dynamo and the voltage control box.

If no faults were found, the problem is likely to be the control box.



# 142 | Control Box, Relays, Horns & Switches



# Control Box, Relays, Horns & Switches 143

ill. No	Part Number	Description	Qty. Req.	Details			
Hor	ns						
1	BHA4515	HORN, high note	1	Lucas type			
	BHA4514	HORN, low note	1	] "			
	GGE164	HORN, high note	1	double terminal type			
	GGE165	HORN, low note	1				
	GGE101	HORN, high note	1	single terminal type			
	GGE102	HORN, low note	1				
3	AHA6657	MOUNTING BRACKET, RH	1				
	AHA6658	MOUNTING BRACKET, LH	1				
4	607950A	BRACKET, horn to mounting	2				
6	SE604051	SCREW (mounting bracket attaching)	4				
7	GHF331	WASHER, locking	8				
8	GHF200	NUT	4				
9	HU706P	SCREW, mounting bracket to body	4				
Sta	rter Solenoids						
11	BCA4501	STARTER SOLENOID	1	to G-AN4-59607;			
12	27H5576	RUBBER COVER, (manual solenoid)	1	to H-AN9-71622			
14	BMK1727	STARTER SOLENOID	1	from G-AN4-59608; G-AN5; from H-AN9-71623; H-AN10; A-AN10			
	13H5952	STARTER SOLENOID	1	G-AN6; can also be used for all previous applications			
16	PMZ308	SCREW, solenoid to body	2	.,			
17	GHF306	WASHER, plain	2				
18	WL700101	WASHER, locking	2	for battery shelf mounted			
19	GHF206	NUT	2	solenoids only			
Fus	e Boxes						
20	606253A	FUSE BOX, 2 fuse type (Lucas 4FJ)	1	1			
21	505158A	LID, fuse box	1	G-AN4; H-AN9			
22	PMZ310	SCREW, fuse box to body	1				
23	WL700101	WASHER, locking	1				
25	37H4727	FUSE BOX, 4 fuse type (Lucas 7FJ)	1	1			
26	518995A	LID, fuse box	1	G-AN5; G-AN6;			
27	PMZ316	SCREW, fuse box to body	2	H-AN10; A-AN10			
28	WL700101	WASHER, locking	2				
29	GFS3035	FUSES, 35 amp	1	(pack of five)			
Wa	Water & Oil Sender Units						

BHA4780

AFII1055

GHF425

The Midget 1500 from 1978 (G-AN6-200001) had its direct reading oil pressure & water temperature instruments replaced by a warning light and an electrically sensed gauge respectively.

The sender units (or 'transmitters') to supply these circuits are listed here. 1 | from G-AN6-200000 on 31 GTR108 TEMPERATURE TRANSMITTER, water

CLIP, unit retaining

SCREW, clip retaining

CLIP, unit retaining, alternative

32	GPS133	SWITCH (oil pressure warning light)	1		HUIT G-ANG-200000 UIT			
Brake Switches								
35	C16062A	STOP LIGHT SWITCH, hydraulic	1		G-AN4; G-AN5; H-AN9; H-AN10; A-AN10			
36	BHA4675	STOP LIGHT SWITCH, mechanical	1	•	G-AN6			
37	RTC826	SWITCH*, brake (for brass body)	1	1	*PDWA valve warning light			
38	AAU1700A	SWITCH*, brake (for iron body)	1	]				
	*Note: See pages	126/127 for information on brake pressure dii	fferer	ntia	l actuator valves.			
39	AAU2492	SWITCH (handbrake warning light)	1		from G-AN6-166304 on			
Volt	age Stabiliser	S						
40	BHA4602	VOLTAGE STABILISER, fuel gauge	1	1	G-AN4-60459 on;			
41	AB608031	SCREW, voltage stabiliser to bulkhead	1	1	G-AN5; to G-AN6-200000;			
					H-AN9-72040 on; H-AN10; A-AN10			
42	148876A	VOLTAGE STABILISER, fuel/temp gauge	1	1	from G-AN6-200001			
43	AB604032	SCREW (voltage stabiliser to instrument)	1	]				
Flas	sher Units							
44	GFU2103	FLASHER UNIT, 3 pin type	1	1	to G-AN4-60459;			
	C28520	HAZARD UNIT, 3 pin type (if fitted)	1	]	to H-AN9-72040			
45	SE604041	SCREW, flasher unit to bulkhead	1/2	1	quantity increases if			
46	GHF331	WASHER, locking	1/2	]	hazard unit fitted			
47	GFU2124	FLASHER UNIT, 2 pin type	1	1	from G-AN4-60460; G-AN5;			
	GFU2204	HAZARD UNIT, 2 pin type (if fitted)	1		G-AN6; H-AN9-72041; H-AN10; A-AN10			

1/2

1/2

1/2

quantity increases if

hazard unit fitted.

ill. No	Part Number	Description	Qty. Req.	Details		
<b>Cot</b> 50 51 52	urtesy Light Sv 13H391 BHA5058 GHF421	vitches SWITCH, boot lamp SWITCH, interior lamp SCREW (switch to 'A' post)	1 2 2	G-AN5-89515 on; G-AN6; H-AN10-86303 on; A-AN10		
Reversing Light Switches           54         13H6425         SWITCH, reversing lamps         1         6-AN4-58112 on; G-AN5;           55         PCR409         'P' CLIP (cable securing)         1         H-AN9-70268 on; H-AN10;           A-AN10         A-AN10						
56 57 58 59	GAE191A GHF302 ULC1178 503213	SWITCH, reversing lamp WASHER, switch seating CLIP, cables to gearbox INSULATING SLEEVE (for clip)	1 1 2 2	G-AN6		

#### Fitting Reversing Lights

Cars built after the chassis numbers above were fitted with reversing lamps, which automatically operated when reverse gear was engaged. A plunger switch, in a threaded hole in the gearbox remote housing, sensed when the gear selector mechanism was in the reverse gear position.

Owners wishing to fit reversing lights to cars not originally so fitted would be wise to check whether the gearbox remote housing in their car has the necessary tapped hole to accept the switch. If it has, the only major task is to site the reversing lamp(s).

Those without the correct housing will either have to try to obtain one, or fit a manual switch and a warning lamp in the cockpit of the car (the warning lamp is a legal requirement in the UK for manually operated reversing lights). Wiring provisions will have to be made to connect the switch, power source and lamps. Before fitting reversing lamps (or any auxiliary lamp), local regulations should be consulted regarding positioning, quantities, power, warning lamp requirements, etc.

### Headlamp Dip Switch

60	RTC432A	SWITCH (headlamp dipping)	1 ]	
61	C22276	RUBBER CAP (for non-slip operation)	1	
62	SE910201	SCREW, switch to bracket	2	
63	WL700101	WASHER, locking	2	G-AN4; H-AN9
64	AHA5516	BRACKET, dip switch mounting	1	
65	SE604041	SCREW, bracket to toe board, LHD	2	
	SE604081	SCREW, bracket to toe board, RHD	2	
66	GHF331	WASHER, locking	2 ]	

#### **Voltage Control Boxes**

(dynamo fitted cars only)

Two distinctly different designs of voltage control box were used on dynamo-fitted MG Midgets and Austin Healey Sprites. The chassis number of your vehicle will indicate which type should be fitted (as detailed above). If in doubt, count how many screws fix the unit to the car, study the method used to retain the cover over the electrical mechanism, or read the manufacturer's information and terminal coding stamped on the unit.

The earlier unit is the Lucas model RB106. It may be identified by its two screw attachment to the bulkhead, the spring wire clip securing the cover and its terminals, which are marked 'A1', 'A' 'F', 'D' and 'E'. The later type is the Lucas model RB340. It is attached to the car with three screws, the cover is retained by two push-in snap headed fasteners and it bears the terminal identifications 'E', 'D', 'WL', 'F' and 'B'.

The two types of voltage control unit are not easily interchangeable.

It is not correct to say that either unit will always bear the Lucas name and/or the model type number. This is due to reproductions from non original equipment manufacturers servicing the demands of the market-

place. The quality of such units should not be dismissed, because these alternative manufacturers often supply product to Lucas.

Within the pages of the factory-produced workshop manual, details may be found for test and adjustment procedures relevant to each of the two types of control box. Such adjustments are to rectify problems that may have occurred during service. If components within the voltage control box are found to be damaged, it will probably be easier to replace the entire unit.

However, simply cleaning the electrical contacts often cures a charging fault.

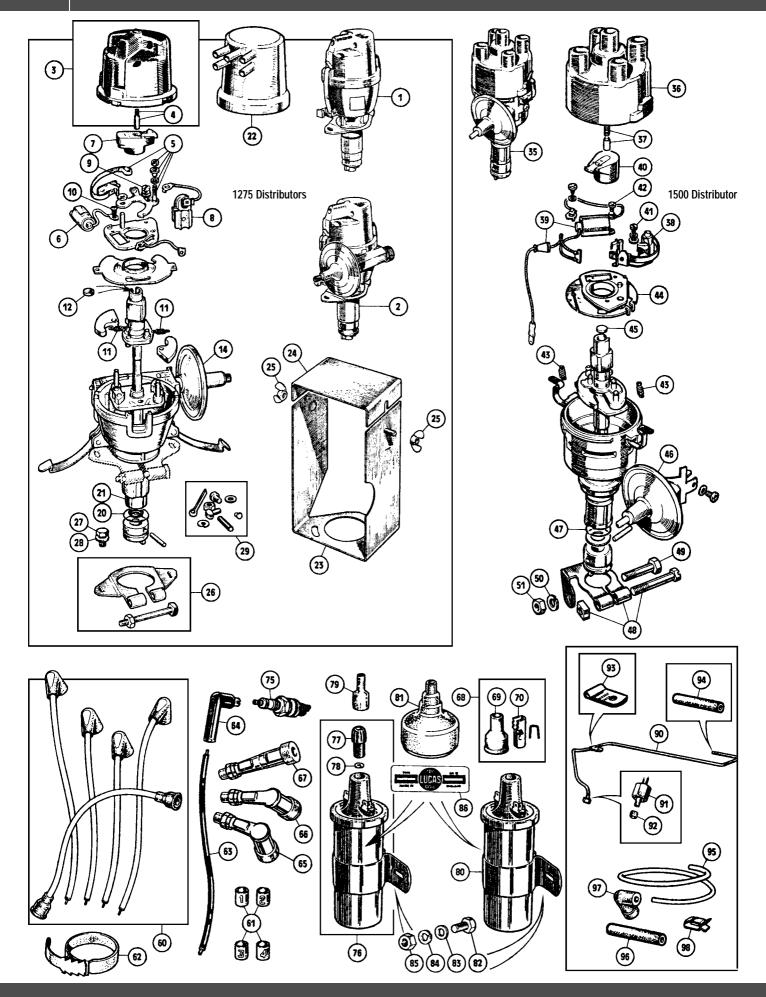
75	GEU6603	VOLTAGE REGULATOR BOX	1 ]	
76	PMZ320	SCREW (regulator attaching	2	G-AN4; H-AN9
77	WL700101	WASHER, locking	2 ]	
79	GEU6605	VOLTAGE REGULATOR BOX	1 ]	
80	PMZ318	SCREW (regulator attaching	3	G-AN5; H-AN10; A-AN10
81	WL700101	WASHER, locking	3	

#### Radio Equipment

8	5 AJM1112	AERIAL, manual (retractable)	1	
N	I AJM1112X	AERIAL, electric (retractable)	1	
N	I EEP11	AERIAL, roof mounted	1	
86	6 ZKC533	EXTENSION LEAD	a/r	radio to aerial cable
87	7 DZB5645	LOUDSPEAKER, oval	1	fits original radio console

Cars fitted with radios may experience interference from other electrical equipment on the car. To lessen interference, which is heard as a crackle or buzz, suppressors may be fitted to the possible sources. If in doubt consult your radio equipment supplier.

88	DZB5567	SUPPRESSOR (radio interference)	a/r	coil or fuel pump fitment.
	579356A	SUPPRESSOR (radio interference)	a/r	alternator fitment.



# Distributor & Ignition System | 145

iII. No	Part Number	Description	Qty. Req.	Details
ь.				

#### Distributors

Lucas distributors were used exclusively on Sprite & Midget models throughout production.

They can be identified by both type and specification number (both may be found stamped on the casing). These numbers are listed below to assist in identifying the unit you have fitted to your car. Note that a similar model type distributor found on another type of car will seemingly fit and run in your car.

However, it may have a detrimental effect on your car's overall performance as the ignition advance/retard characteristics are unlikely to be matched to your engine's requirements.

127	5 Distributors	(12CC, 12CE and 12V engine nos.)			
1	12G815E	DISTRIBUTOR, exchange, reconditioned	1	1	to 12CC/Da/H11638
		(without vac' advance: Lucas 23D4, no 40819,	)	]	
2	12G2055E	DISTRIBUTOR, exchange, reconditioned	1	1	12CC/Da/H11639 on;
		(with vac' advance: Lucas 25D4, no 41270)		]	12CE; 12V
3	GDC102	CAP, distributor	1		for screw-fitting leads
4	262703A	BRUSH & SPRING, high tension	1		
5	GCS101	CONTACT SET ('points')	1		standard fitment
	GCS111	CONTACT SET ('points')	1		fast road/competition
6	GSC111	CONDENSER	1		
7	GRA101	ROTOR ARM	1		
8	37H2981	LOW TENSION LEAD & INSULATOR BLOCK	1		
9	GCS1001S	SCREW (for points)	1		
10	GSC1001S	SCREW (for condenser)	1		
11	TT1903	SPRING SET, auto advance	1		selective fitment kit
12	511851	FELT PAD (cam spindle lubrication)	1		
14	27H7645*	VACUUM ADVANCE UNIT	1	1	12CC/Da/H11639 on;
		(replacement - with push fit pipe union)		]	12CE; 12V

\*Originally the advance unit had a threaded union to a metal vacuum pipe. Later this was changed to a push fit union to a plastic pipe; it is the latter which is available as a service part today. If you replace the advance unit on a metal pipe fitted car, also replace the metal pipe with the plastic version and its relevant connectors - or squeeze a rubber connector over the end of the metal pipe to adapt it.

20	513682A	O' RING, sealing distributor to block	1
21	606895	BUSH, distributor spindle	1 cut to correct length
22	8G726	COVER, waterproof	1
23	12G335	SUPPRESSION SCREEN, distributor	1   French markets
24	12G337	COVER, suppression screen	1 (if fitted)
25	V242	WING NUT, cover securing	2 ]
26	3H2138	PLATE (clamping distributor to block)	1
27	SH604041	SCREW, clamp plate to block	2
28	GHF331	WASHER, locking	2
29	245015	SUNDRY PARTS KIT	1

### 1500 Distributor (FP engine nos.)

35	RKC5044	DISTRIBUTOR, new (with vacuum advance: Lucas type 45D4, no	1 41449)	
	RKC5044E	DISTRIBUTOR, exchange, recon (with vacuum advance: Lucas 45D4, no 4144	1	
36	GDC136	CAP, distributor	1	for push-fitting leads
37	RTC315A	BRUSH & SPRING, high tension	1	
38	GCS118	CONTACT SET ('points')	1	
39	GSC118	CONDENSER & LOW TENSION LEAD	1	
40	GRA114	ROTOR ARM	1	
41	GSC1001S	SCREW, for points	1	
42	GSC1001S	SCREW, for condenser	1	
43	TT1903	SPRING SET, auto advance	1	selective fitment kit
44	RTC1190	BASE PLATE	1	
45	511851	FELT PAD (cam spindle lubrication)	1	
46	RTC1775	VACUUM ADVANCE UNIT	1	
47	513682A	O' RING (sealing distributor to block)	1	
48	RTC1773	PLATE (clamping distributor to block)	1	
49	BH605161	BOLT (clamp plate to block)	1	
50	GHF332	WASHER, locking	1	
51	GHF201	NUT	1	

Hig	h Tension Lead	ds		
60	GHT102	HIGH TENSION LEAD SET	1	12CC; 12CE; 12V
	GHT152	HIGH TENSION LEAD SET	1	FP series (1500)
61	CRST255	LABEL SET (for lead numbering)	1	
62	13H6107	CABLE TIE, 'fir tree' type	a/r	
For t	hose who wish to r	nake their own lead set we can offer the follo	wing,	
63	AAA5981M	HIGH TENSION LEAD	a/r	sold per 1 metre length
		copper stranded with black PVC insulation		]
	C-AHT266	HIGH TENSION LEAD	a/r	1
		copper stranded with black & yellow		sold per 2 metre length
		PVC insulation (period competition fitment)		1
64	3H1422	SUPPRESSOR CAP, 90° angled	4	'Lucas' period style

	ill. No	Part Number	Description	Qty. Req		Details
	65	NLB5	SUPPRESSOR CAP, 90° angled	4	1	
l	66	NYB5	SUPPRESSOR CAP, 60° angled	4	1	'After market' items
l	67	NSB5	SUPPRESSOR CAP, straight	4	]	
l	68	GCL1110	END KIT	a/r		
l			led leads to 'push-fitting' coil & distributor cap			
l	69	12G1040	COVER	a/r		
	70	12G1476	TERMINAL	a/r		
	Spa	ırk Plugs & Co	il			
l	75	N9YCC	SPARK PLUG, 'Champion' original	4	1	12CC, 12CE and 12V
l		BP6ES	SPARK PLUG (alternative)	4		,
l		N12YCC	SPARK PLUG, 'Champion', original	4	1	FP series (1500)
l		BP5ES	SPARK PLUG (alternative)	4		, ,
l	76	BHA4611	COIL, 12 volt ('screw-fitting' HT lead)	1	1	
l	77	105036	ACORN NUT (HT lead clamping)	1	1	12CC
l	78	214279A	WASHER, locking	1	1	
l	79	8G728	COVER, waterproof (acorn nut)	1	]	
l	80	GCL110	COIL, 12 volt ('push-fitting' HT lead)	1		
l		GCL111	COIL, ballasted ('push-fitting' HT lead)	1		12CE; 12V. FP series (1500)
l	81	8G727	COVER, waterproof (for coil)	1		wet climate fitment
l	82	GHF117	SCREW, coil attaching	2		
l	83	PWZ204	WASHER, plain	4		
l	84	GHF331	WASHER, locking	2		
l	85	GHF200	NUT	2		
	86	CRST156	DECAL, 'Lucas' (for coil)	1		
	Vac	uum Pipes				
l	90	AEA579	VACUUM PIPE, metal	1	1	for 12CC, 12CE and
l	91	6K650	NUT (pipe to distributor)	1	ı	12V with
l	92	6K649	OLIVE (sealing pipe to advance unit)	1	1	'threaded union'
l	93	ACH9009	CLIP, pipe to cylinder head	1	1	advance unit
l	94	ACH9041	CONNECTOR, straight (rubber)	1		
l	95	37H4229M	VACUUM PIPE, plastic (per metre length)	1	1	for 12CC, 12CE and 12V
l	96	12B2095	CONNECTOR, straight, rubber	a/r	1	with 'push fit union'
	97	12B2062	CONNECTOR, right angled, rubber	a/r		advance unit;
					]	for FP series (1500)
	98	138892	CLIP, plastic pipe to fuel line	3		FP series (1500)

# Ignition; Timing Terms & Details

The dwell angle is the angle passed through (in degrees) during which the distributor points remain closed for each ignition cycle. The total number of degrees in each cycle is 360° divided by the number of cylinders (i.e. 90° in the case of a four cylinder engine). The correct dwell angle setting for each of the two Sprite & Midget engines dealt with in this catalogue is as follows:

Engine Capacity	Distributor Model	Dwell Angle
1275 cc	Lucas 23D4 or 25D4	60° +/- 3°
1500 cc	Lucas 45D4	55° +/- 5°

The dwell angle can be checked with a suitable meter at all engine speeds. If the needle of the meter vibrates during the test, then there is an appreciable amount of wear between the distributor shaft and its bearing. If the dwell angle is too low, the points gap is too wide (and vice versa).

'Ignition timing' is the angle, in degrees, when the ignition spark occurs relative to the engine crankshaft's rotation. The position used as a datum is top dead centre (TDC) of the firing stroke for each cylinder. If an engine requires timing to 4° (degrees) BTDC (Before Top Dead Centre), the spark should occur when the rotating crankshaft reaches this angle Before Top Dead Centre.

If the ignition timing is said to be 'advanced', the spark is occurring before the specified point in the cycle. Retarded ignition, of course, means the opposite. The high pitched engine knock known as 'pinking' is usually associated with an ignition that is too advanced. Retarded ignition manifests itself by overheating and loss of engine power (a 'popping' sound may also be heard in the exhaust note when the engine is over-running, for instance running down hill without use of the accelerator). These sounds are of course not sure-fire diagnoses, as the fuel used and general engine condition are also contributory factors. Heavy carbon deposits in the combustion head will induce pinking in an engine with perfect ignition timing, under certain conditions and loads.

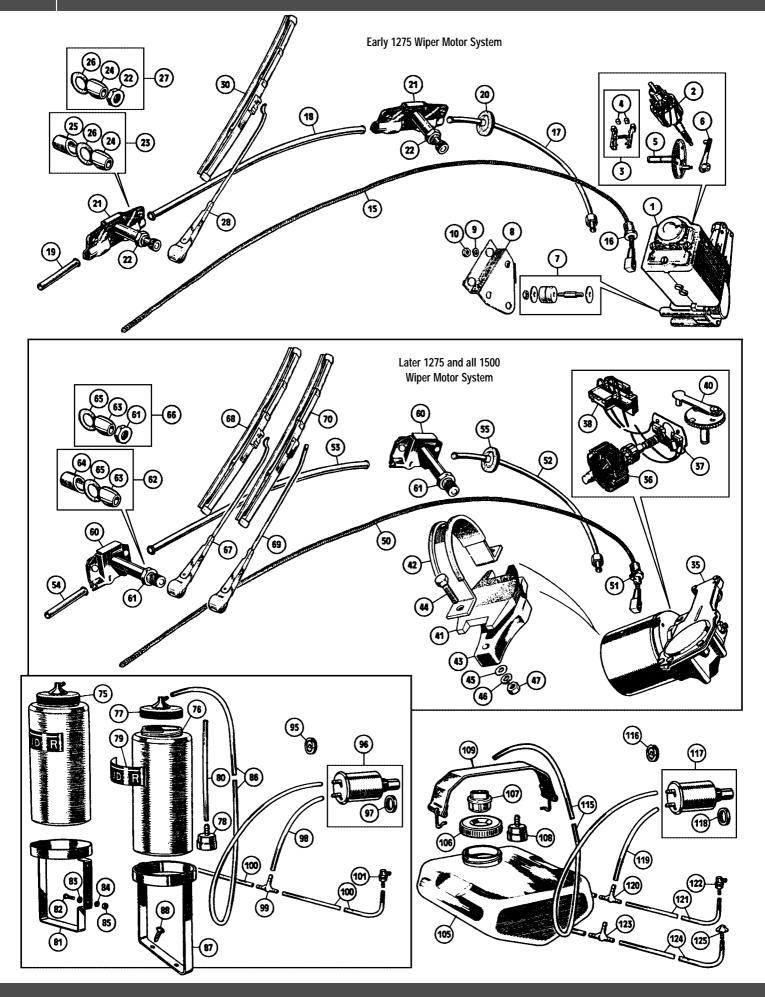
All standard distributors on Sprites & Midgets have a centrifugal advance mechanism.

The faster the engine (and thus distributor) rotates, the further the timing advances to improve performance and economy. The centrifugal system is critical to the correct operation of the engine.

A vacuum advance system was also fitted to all 1500cc engine cars and post-1967 1275cc models. Similar in function to the centrifugal system, it uses vacuum from the induction system to apply the advance. Poor cruising speed economy can result from a failed vacuum advance unit.

Spark plugs should always be checked for the correct electrode gap before installation. As a rule plugs are supplied with the correct gap: between 0.024" and 0.026" (0.610 to 0.660 mm). If one new plug in a set of four has far too tight a gap, it may have been dropped at some point. A faulty new spark plug is frustrating to diagnose. It is best to buy well known brands of plugs (beware of auto-jumble '95% off retail price' sold-from-a-bucket plugs - you get what you pay for).

# 146 | Windscreen Washer & Wiper System



		Windsc	re	een Was
iII. No	Part Number	Description	Qty. Req.	Details
Two chan	, ,	ems were fitted; the early square body motor negative earth was made. The change also in		3.
'Squ	ly 1275 model: are Body' Wiper Mo i-AN4-60459; to H-A			
1	27H3542	WIPER MOTOR, new	1 ]	supplied without
	GXE7714	WIPER MOTOR, recon, exchange	1 ]	shaft, gear & link
2	511003	ARMATURE	1	
3	17H5396	BRUSH GEAR	1	
4	508170	CARBON BRUSHES (one pair)	1	
5	511007	SHAFT & GEAR	1	
6	511096	LINK	1	
7	17H5431	MOUNTING KIT, wiper motor	3	
	(Kit includes one s	tud, one nut, two washers & one grommet)		
8	AHA8154	BRACKET, motor mounting	1	
9	GHF331	WASHER, locking	3	
10	GHF200	NUT (bracket to footwell)	3	
15	RTC202A	CROSS HEAD & RACK	1	cut to 33"
16	37H5282	FERRULE,	1	rack outer tube to motor
17	14A4801	RACK TUBING	1	motor to first wheelbox
18	14A4802	RACK TUBING	1	wheelbox to wheelbox

### Later 1275 & all 1500 models with Lucas 14W type

RACK TUBING

GROMMET

**WHEELBOX** 

BEZEL KIT

NUT, 6 sided

BEZEL, chrome

SPACER, rubber

GASKET, rubber

FITTING KIT, wheelbox

WIPER ARM, bright, 'spoon' type

WIPER ARM, bright, 'spoon' type

WIPER BLADE, bright, 'spoon' type

RACK TUBE & NUT

(tubing must be cut to length & flared)

575047A

C5574A

37H6316

ANK3459

BAU1465

ADB826

AHH5414

AHH5413

13H68

GWB145

37H6316FK

AAU1909A

19

20

21

22

23

24

25

26

27

28 13H66

'Round Body' Wiper Motor (G-AN4-60460 on; G-AN5; G-AN6; H-AN9-72041 on; H-AN10; A-AN10)

35	37H8221	WIPER MOTOR, new	1	supplied without
	GXE7708	WIPER MOTOR, recon, exchange	1	shaft, gear and link
36	37H8222	ARMATURE	1	
37	RTC198A	BRUSH GEAR & PLATE	1	includes wires
38	517645A	PARKING SWITCH* ('screw on')	1	A/B spec. wiper motor
	520160A	PARKING SWITCH* ('clip on')	1	D spec. wiper motor
*Not	to. The type of parki	na switch required for your winer meter can	ho ida	entified by the letter suffix after

\*Note: The type of parking switch required for your wiper motor can be identified by the letter suffix after the Lucas part number (which is a five digit number starting with a 7) stamped on the raised round section of the gearbox lid. These letters can be A/B, or D.
The switches are not interchangeable due to casting differences of the motor bodies.

40	37H3796	SHAFT, GEAR & LINK	1	RHD
	608092A	SHAFT, GEAR & LINK	1	LHD
41	150844A	PAD (wiper motor mounting)	1	
42	BHA4790	STRAP & RUBBER, motor retaining	1	
43	AHH8766	BLOCK, motor mounting	1	
44	GHF102	BOLT (wiper motor attaching)	2	
45	GHF314	WASHER, plain	2	
46	GHF331	WASHER, locking	2	
47	GHF200	NUT	2	
50	RTC202A	CROSS HEAD & RACK	1	cut to 38.5"
51	37H3694	FERRULE,	1	rack outer tube to motor
52	BHA4618	RACK TUBING	1	motor to first wheelbox
53	AHA8696	RACK TUBING	1	wheelbox to wheelbox
54	575047A	RACK TUBING	1	second wheelbox extension
	AAU1909A	RACK TUBE & NUT	a/r ]	'bulk' alternative to
		(tube must be cut to length and flared)	J	items 52, 53, 54
55	C5574A	GROMMET	1	rack tubing through bulkhead
60	37H7738	WHEELBOX	2	
61	17H8769	NUT (8 sided)	2	
62	BAU1465	BEZEL KIT	2	

		<u> </u>			
	ill. No	Part Number	Description	Qty. Req.	Details
(	63 64 65	ADB826 AHH5414 AHH5413	BEZEL, chrome SPACER, rubber GASKET, rubber	2 2 2	
(	66	37H7738FK	FITTING KIT (wheel box)	2	Includes 61, 63, 65
(	67	BHA4894	WIPER ARM, bright ('spoon' fitting) RHD	2 ]	from G-AN4-60460 to
		BHA4893	WIPER ARM, bright ('spoon' fitting) LHD	2	G-AN5-123750;
(	86	GWB145	WIPER BLADE, bright ('spoon' fitting)	2	from H-AN9-72041; H-AN10; A-AN10.
(	69	BHA5208	WIPER ARM, bright (straight fitting) RHD	2 ]	
		BHA5207	WIPER ARM, bright (straight fitting) LHD	2	from G-AN5-123751; G-AN6.
-	70	GWB164	WIPER BLADE, bright (straight fitting)	2	
		BAU5331	WIPER ARM, black (straight fitting) RHD	2	alternatives to above
		BAU5330	WIPER ARM, black (straight fitting) LHD	2	use in sets
,	Scr	GWB266 een Washer Sy	WIPER BLADE, black (straight fitting)  ystem - 1275	2 ]	
		N4; G-AN5; H-AN9;			
	75	GWW918K	BOTTLE & LID*, replacement	1	
	76	GWW918	CONTAINER*, washer liquid, original	1	
	77	AHH6848	LID*, original	1	
	78	GWW506	NON-RETURN VALVE ('foot valve')	1	
į	79	CRST124	LABEL, self adhesive, 'Tudor'	3	

80 GWW202M TUBING, in bottle (sold per metre) cut to 6" length \*Note: The replacement bottle assembly includes bottle, lid, valve and 'Tudor' labels; note that in this instance, 'replacement' and 'original' parts cannot be interchanged.

8	31	13H232	BRACKET (container mounting)	1 ]	
8	32	PMZ306	SCREW (bracket to radiator splash shield)	2	
8	33	PWZ103	WASHER, plain	2	to G-AN4-66225;
8	34	WL700101	WASHER, locking	2	to H-AN9-77590;
8	35	GHF206	NUT	2	(vertical flow radiator)
8	36	GWW202M	TUBING, bottle to pump	2	
			(sold per metre, cut to 63" length)	]	
8	37	AHA8729	BRACKET (container mounting)	1 ]	G-AN4-66226 on; G-AN5;
8	38	GHF425	SCREW (bracket to footwell top)	2	H-AN9-77591 on;
		GWW202M	TUBING, bottle to pump,	2	H-AN10; A-AN10;
			(sold per metre, cut to 30" length)	]	(cross flow radiator)
ć	95	RFR1303	GROMMET, bulkhead	1	
Ć	96	GWW102	PUMP, manually operated	1	
Ć	97	17H2669	NUT, pump securing	1	
Ç	98	GWW202M	TUBING, pump to 'T' (sold per metre)	1	cut to 6" length
ç	99	GWW404	T PIECE (4mm inlet, 3mm outlets)	1	
		13H6472	T PIECE (4mm inlet, 3mm outlets)	1	alternative
1	00	GWW201M	TUBING, 'T' to jets (sold per metre)	1	cut to two 6" lengths
1	01	GWW802	JET	2	

### Screen Washer System - 1500

(G-AN6)

second wheelbox extension

rack tubing through bulkhead

'bulk' alternative to

Includes 22, 24, 26

items 17, 18, 19

a/r

2

2

2

2

2

2

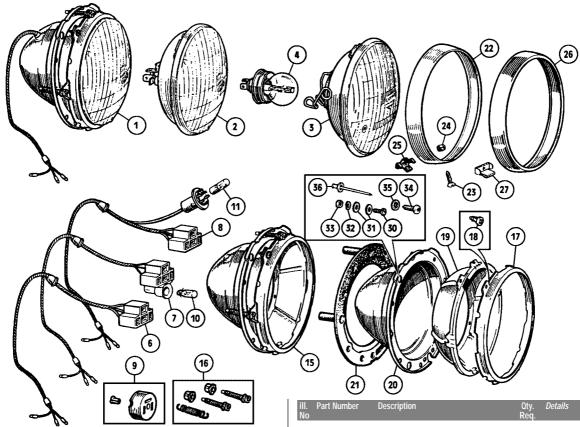
2

2 RHD

2 LHD

105	GWW902	TANK, washer liquid	1	
106	GWW952	SCREWED CAP	1	
107	GWW951	FILLER PLUG	1	
108	GWW506	NON-RETURN VALVE ('foot valve')	1	
109	CHA458	STRAP, tank retaining	1	
115	GWW202M	TUBING, tank to pump (sold per metre)	2	cut to 40" length
116	RFR1303	GROMMET	1	tube through bulkhead
				•
117	GWW102	PUMP (manual)	1	
118	17H2669	NUT, pump securing	1	
119	GWW202M	TUBING, pump to 'T' (sold per metre)	1	cut to 6" length
120	GWW408	'T' PIECE (4mm inlet, 3mm outlets)	1]	
121	GWW201M	TUBING, 'T' to jets	1	to G-AN6-200000
		(sold per metre, cut to two 6" lengths)		
122	GWW802	JET	2	
123	GWW401	T PIECE (4mm inlet, 4mm outlets)	1 ]	
124	GWW202M	TUBING ('T' piece to jets)	1	from G-AN6-20000
		(sold per metre, cut to two 6" lengths)		
125	GWW829	JET	2	

# 148 | Headlamps & Front Side/Indicator Lamps



ill. Part Number Description Qty. Details			
No Req.	Number Description	on Qty. Req.	Details

# Headlamps & Front Side/Indicator Lamps

For Halogen Headlamp Conversions & High Output Bulbs, please refer to Accessories

# Headlamps

The headlamps fitted to Sprite & Midget cars break down very simply into four types.

These are left hand dipping for RHD cars & right hand dipping for LHD cars, each with, or without an integral side lamp (pilot lamp). French markets required a cadmium yellow headlamp bulb to be fitted whereas the rest of the world called for a clear bulb.

Many local regulations exist where lamps are concerned; if in any doubt consult your local authority about their requirements. Remember that it is possible that what was originally specified for your car when it was constructed may not be valid today.

Only the RHD version is shown for Midget 1500's, since apart from North American specification, there were no LHD cars. If, however, you require LHD headlamps for a Midget 1500 (say, for mainland European) the 'Germany only' headlamp intended for earlier models will suffice. This headlamp is not allowed for use in North American markets.

1	27H8499	HEADLAMP, sealed beam (RHD, no pilot lamp)	2	
	AEU1061A	HEADLAMP, P45T asymmetric	2	G-AN4; G-AN5;
	D41144==4	(LHD, no pilot lamp; not Germany)		H-AN9; H-AN10; A-AN10
	BAU1177A	HEADLAMP, P45T asymmetric (LHD, with pilot lamp; Germany only)	2	
	BHM7199	HEADLAMP, sealed beam	2	G-AN6
	DI IIWI7 133	(RHD, with pilot lamp)		U-ANU
2	GLU101	SEALED BEAM UNIT	2	60/45 watt
		(RHD, no pilot window)		
	13H3471A	SEALED BEAM UNIT	2	60/45 watt
		(RHD, with pilot window)		
3	27H4146A	LIGHT UNIT, P45T asymmetric	2	
		(LHD, no pilot hole)		
	27H5981A	LIGHT UNIT, P45T asymmetric	2	
		(LHD, with pilot hole)		
4	GLB410	BULB, P45T, clear glass (tungsten)	2	45/50 watt, see
	GLB411	BULB, P45T, cadmium yellow (tungsten)	2	also Accessories
	GLB2983	BULB, P45T, clear glass (quartz halogen)	2	60/55 watt
6	BAU2110	ADAPTOR, Lucar type (with cable)	2	no provision for pilot
7	BAU2111	ADAPTOR, Lucar type (with cable)	2	for sealed beam with pilot
8	27H5976	ADAPTOR, Lucar type (with cable)	2	for P45T with pilot
9	600226A	ADAPTOR ONLY (for Lucar terminals)	2	,
10	GLB6501	BULB, pilot, capless type	2	fits BAU2111 only

ill. No	Part Number	Description	Qty. Req.	Details
11	GLB233	BULB, pilot, bayonet fitment type	2	fits 27H5976 only
15	27H8263X	BUCKET, BOWL & RIM	2	
16	BHM7058	ADJUSTER KIT	2	
17	515218A	OUTER MOUNTING RIM, chrome	2	
18	AB606021	SCREW, retaining outer rim	6	
19	SML4	Bowl, inner (steel)	2	
	27H6481	Bowl, inner (plastic)	2	
20	SML3	Bucket, headlamp (Original)	2	with adjuster
	SML3P	Bucket, headlamp (plastic)	2	
	SML3Z	Bucket, headlamp	2	Less adjusters
21	009403	GASKET, rubber (bucket to body)	2	
22	500929	RIM, headlamp (screw fitting)	2	]
23	RTC465	SCREW, rim retaining	2	G-AN4; G-AN5;
24	21G9057	WASHER, rubber (screw retaining)	2	H-AN9; H-AN10; A-AN10
25	37H7421A	CLIP, rim screw securing	2	]
26	57H5455	RIM, headlamp (spring clip fitting)	2	] G-AN6
27	BAU1460	SPRING CLIP, rim securing	2	]

#### **Headlamp Fitment Hardware**

The headlamp units were attached to the front wings by more than one method. The most common method used was screws and nuts; this was replaced at a late date by the use of either self tapping screws or pop rivets. The latter was preferred by the production line for speed of assembly (this was in keeping with construction methods utilised by contemporary car manufacturers).

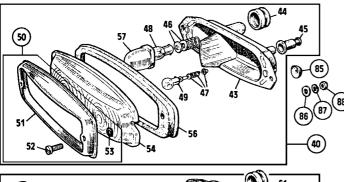
30	PMZ314	SCREW	8 ]	
31	GHF306	WASHER, plain	16	'Screw & nut' method
32	WL700101	WASHER, locking	8	
33	GHF206	NUT	8 ]	
34	AB610051	SCREW, self tapping	8 ]	'Self tapping screw' metho
35	WE702101	WASHER, shakeproof	8 ]	
36	569313	RIVET non type	8	'Pon Rivet' method

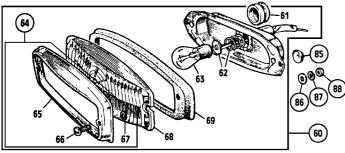
# **Upgrading Your Headlamps**

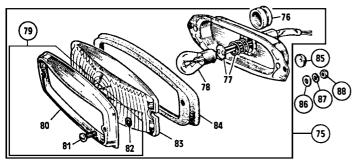
The simple replacement of standard Sprite/Midget headlamps with a pair of halogen units will bring your car's light output up to today's standards.

Halogen headlamps offer significant improvements to lens design, ensuring all the light output is directed into the correct area to guide you. A range of replacement halogen headlamps suitable for Sprites & Midgets are detailed In the accessory section.

It may be noticed that ordinary halogen bulbs do not have a much greater power rating than the older designs of headlamp. Yes, there are radically more powerful bulbs available in the marketplace, but you need to check legislation before using them on a public highway; also be aware that the wiring & switches in the car were designed many years ago to cope with lamp power ratings used at that time.





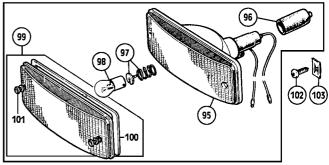


Front	Side &	Indicator	Lamp	Assemblies -	- 1275	Models

(G-AN4; G-AN5; H-AN9; H-AN10; A-AN10)

40	13H429	SIDE & INDICATOR LAMP, RH	1	1
	13H428	SIDE & INDICATOR LAMP, LH	1	
	SML101	BACK PLATE (bulb holders & wires)	2	
43	SML1	BACK PLATE, (bare)	2	
44	17H5216	SLEEVE, rubber, for indicator	2	
45	37H5294	SLEEVE, rubber, for side lamp	2	
46	37H5452	CONTACT & SPRING, indicator	2	
47	244700A	CONTACT & SPRING, side lamp	2	white side lamp with
48	GLB382	BULB, 21 Watt (indicator)	2	orange indicator
49	GLB989	BULB, 5 Watt (side lamp)	2	(all markets except
50	57H5308	RIM, chrome (with screws)	2	Germany and Italy)
51	57H5155	RIM, chrome (lens retaining	2	"
52	57H5569	SCREW, rim & lens retaining	4	
53	21G9057	WASHER, rubber (screw retaining)	4	
54	57H5158	LENS, RH, clear glass	1	
	57H5159	LENS, LH, clear glass	1	
56	57H5157	GASKET, lens & lamp seating	2	
57	57H5156	FILTER, orange (for indicator bulb)	2	
60	BHA4487	INDICATOR LAMP	2	]
61	17H5216	SLEEVE, rubber	2	
62	37H5452	CONTACT & SPRING	2	
63	GLB382	BULB, 21 Watt	2	
64	57H5308	RIM, chrome (with screws)	2	Orange indicator
65	57H5155	RIM, chrome, lens retaining	2	no side lamp (Germany)
66	17H5400	SCREW, rim & lens retaining	4	
67	21G9057	WASHER, rubber (screw retaining)	4	
68	27H6243	LENS, orange glass	2	
69	57H5157	GASKET, lens & lamp seating	2	
75	BHA4204	SIDE & INDICATOR LAMP	2	]
76	17H5216	SLEEVE, rubber	2	side lamp (Italy)
77	37H5459	CONTACT & SPRING	2	white indicator & side lamp
78	GLB380	BULB, 21/5 Watt	2	
79	57H5308	RIM, chrome (with screws)	2	(Continued in next column)

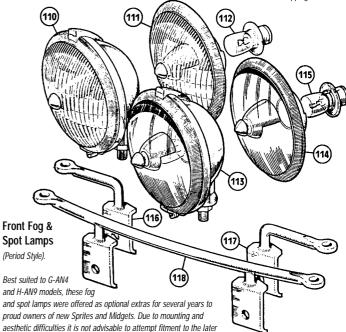
ill.	Part Number	Description	Qty.	Details
No			Req.	
80	57H5155	RIM, chrome, lens retaining	2	(Continued)
81	17H5400	, ,		
82	21G9057	21G9057 WASHER, rubber (screw retaining) 4		side lamp (Italy)
83	57H5307	57H5307 LENS, clear glass 2		white indicator & side lam
84	57H5157	GASKET, lens & lamp seating	2 ]	
85	BHA4242	4242 NUT (lamp securing) 4		(with integral washer)
86	GHF306	WASHER, plain	4 ]	•
87	WL700101	WASHER, locking	4	alternative to item 85
88	GHF206 NUT (lamp securing)		4 ]	
Г				6 0



Front Indicator Lamp Assembly - 1500 Models (G-AN6)

		, , , , , , , , , , , , , , , , , , , ,	-/
95	BHA5318	INDICATOR LAMP	2
96	17H5216	SLEEVE, rubber	2
97	37H5452	CONTACT & SPRING	2
98	GLB382	BULB (21 Watt)	2
99	37H8759	LENS, orange (plastic)	2
100	37H8759G	GASKET, lens to lamp	2
101	518868	SCREW, lens securing	4
102	GHF426	SCREW, self tapping	4
103	BHA5323	SPIRE NUT	4
	(110)	(11)	(112)

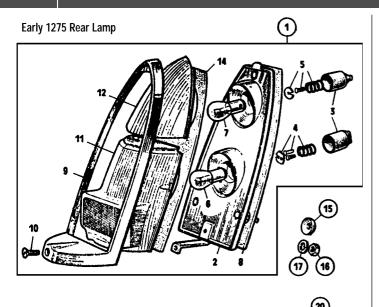
lamp to bumper retains self tapping screw

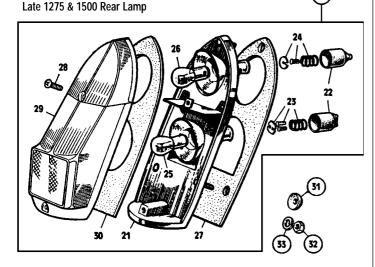


rubber bumper fitted cars! The common denominators in the rules of maintenance on headlamps or driving lamps of any type are that the lenses are kept clean and that the beams of light are correctly aligned & directed to give maximum benefit without dazzling other road users. These are admittedly obvious points of advice, but they can make a significant difference to lighting efficiency. Spending good money on uprated and additional lamps will provide little or no improvement if the advice is not followed.

110 57H5314	FOG LAMP, base mou	inted a/r	
111 ACG5179	LENS & REFLECTOR	R a/r	
112 GLB323	BULB, transverse fil	lament a/r	
113 57H5313	SPOT LAMP, base mo	unted a/r	
114 57H5015	LENS & REFLECTOR	R a/r	
115 GLB185	BULB (axial filamen	t) a/r	
116 AHA6368	BRACKET, lamp moun	nting (RH) a/r	original mountings
117 AHA6369	BRACKET, lamp moun	nting (LH) a/r	
118 GAC3002	X BRACKET (mounts two	o lamps) a/r	alternative

# 150 | Rear Lamps & Interior Light





ill. No	Part Number	Description	Qty. Req.	Details

# Rear Stop, Tail, Reflex and Indicator Lamp Assembly Early 1275 (G-AN4; H-AN9)

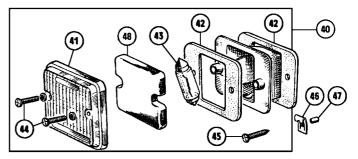
1	BHA4175	STOP, TAIL & INDICATOR LAMP	2	
2	LU54572303	BACK PLATE	2	with bulb holders & wires
3	17H5216	SLEEVE, rubber	4	
4	37H5459	CONTACT & SPRING (stop/tail)	2	
5	37H5452	CONTACT & SPRING (indicator)	2	
6	GLB380	BULB, 21/5 Watt (stop/tail)	2	
7	GLB382	BULB, 21 Watt (indicator)	2	
8	57H5358	GASKET, lamp to body	2	
9	57H5355	RIM, lens to lamp retaining	2	
10	RMP308	SCREW (rim securing)	2	
11	57H5357	LENS, stop/tail and reflex (red)	2	
12	57H5354	LENS, indicator (orange)	2	
14	57H5356	GASKET, lens to back plate	2	
15	BHA4242	NUT (lamp to body)	6	original type
16	NH910011	NUT (lamp to body)	6 ]	alternative to
17	WE702101	WASHER, locking	6	item 15

# Rear Stop, Tail, Reflex and Indicator Lamp Assembly

Late 1275 & 1500 (G-AN5; H-AN10; A-AN10); (G-AN6)

20	BHA4973	STOP, TAIL & INDICATOR LAMP	2	
21	BHA4973Q	BACK PLATE,	2	with bulb holders & wires
22	17H5216	SLEEVE, rubber	4	
23	37H5459	CONTACT AND SPRING (stop/tail)	2	
24	37H5452	CONTACT AND SPRING (indicator)	2	

ill. No	Part Number	Description	Qty. Req.	Details
25	GLB380	BULB, 21/5 Watt (stop/tail)	2	
26	GLB382	BULB, 21 Watt (indicator)	2	
27	37H4679	GASKET, lamp to body	2	
28	518868	SCREW, lens to back plate	4	
29	37H4737	LENS (stop/tail, reflex & indicator)	2	
30	37H4737A	GASKET, lens to back plate	2	
31	BHA4242	NUT (lamp to body)	6	original type
32	NH910011	NUT (lamp to body)	6 ]	alternative
33	WE702101	WASHER, locking	6 ]	to item 31



# **Reversing Lamps**

1275 Models (G-AN4-58112 on; G-AN5; H-AN9-70268 on; H-AN10; A-AN10) 1500 Models (G-AN6)

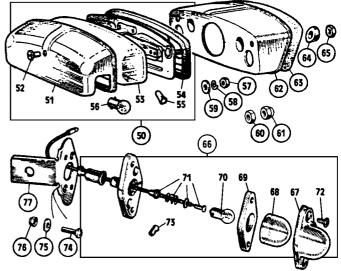
40	AAU5510	REVERSING LAMP	2	
41	37H7512	LENS, clear	2	
42	37H1759	GASKET, lens & lamp mounting	4	
43	GLB273	BULB, festoon type, 21 Watt	2	
44	27H8811*	SCREW (lens attaching)	4 G-AN4; G-AN5; to G-AN6- 190000 approx. H-AN9; H-AN10: A-AN10	

\*Note: The lamps were originally attached to the body by the screws which hold the lens in place, driving into caged nuts on the inside of the rear panel. If these caged nuts are missing or damaged, the later 1500 Midget fasteners can be used to attach the lamps.

	AB606082	SCREW, lens and lamp mounting	4	1
46	PFS316	SPIRE NUT, retaining	4	G-AN6-190000 on approx.
47	AHH7449	PROTECTOR, screw tip	4	

The French market required the reversing lamps to show amber light, instead of white. This was achieved by inserting an amber filter between the bulb and the lens:

HMP240009 FILTER, orange French markets only



# Number Plate Lamps - Early 1275 (G-AN4; H-AN9)

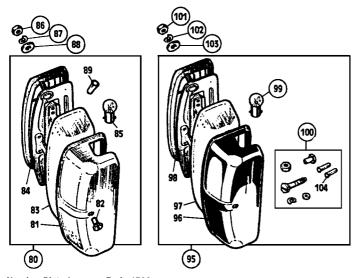
50	127916	NUMBER PLATE LAMP, chrome	1/2	]
51	502264	COVER, chrome	1/2	
52	17H5385	SCREW (cover/lens to back plate)	1/2	quantity increased for
53	601721A	LENS, clear glass	1/2	German market
54	57H5368	GASKET, lamp to plinth	1/2	
55	27H6713	CONNECTOR (bullet terminal)	2/4	
56	GLB989*	BULB	a/r	

\*Note: A single bulb was used originally in this lamp. However, all lamps offered more recently are of a slightly modified design & contain two bulbs.

ill. Part Number Description	Oty. <i>Details</i>
No	Req.
57 AJD8012Z NUT (lamp to plinth) 58 WL700101 WASHER, locking 59 GHF306 WASHER, plain 60 AJD8052C NUT (lamp to number plate supp 61 6K9777 NUT, domed 62 AHA5809 PLINTH, number plate lamp 63 AHA5806 GASKET (plinth to body) 64 AHA5805 PACKING PIECE, angled 65 GHF271 NUT, nyloc	2 not German market.

### Number Plate Lamps - Late 1275 (G-AN5; H-AN10; A-AN10)

66	2A9119	NUMBER PLATE LAMP	2
67	37H5426	COVER, chrome	2
68	606078A	LENS, clear glass	2
69	17H5302	GASKET, lens seating	2
70	GLB989	BULB	2
71	244700A	CONTACT & SPRING	2
72	17H8046	SCREW (cover attaching)	4
73	27H6713	CONNECTOR, bullet terminal	2
74	RMZ314	SCREW (lamp base to bracket)	4
75	GHF306	WASHER, plain	4
76	GHF220	NUT, self locking	4
77	AHA9459BKT	BRACKET, LH	1   lamp to bumper
	ΔΗΔQ/58RKT	RRACKET RH	1



# Number Plate Lamps - Early 1500 (to G-AN6-169643)

WASHER, plain

appearance have also worked their way onto cars over the years.

CONNECTOR (bullet terminal)

103 GHF306

104 27H6713

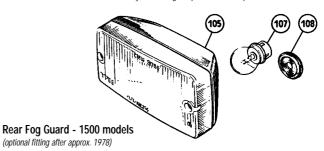
81       502264       COVER, chrome       2         82       17H5385       SCREW (cover/lens to back plate)       2         83       601721A       LENS, clear glass       2         84       57H5368       GASKET (lamp to number plate)       2         85       GLB989*       BULB       a/r         *Note: A single bulb was used originally in this lamp. However, all lamps offered more recently are of a slightly modified design & contain two bulbs.         86       AJD8012Z       NUT (lamp to number plate)       4         87       WL700101       WASHER, locking       4         88       GHF306       WASHER, plain       4         89       27H6713       CONNECTOR       4       electrical bullet terminal         Number Plate Lamps - Late 1500 (G-AN6-169644 on)         95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z <th>80</th> <th>127916</th> <th>NUMBER PLATE LAMP, chrome</th> <th>2</th> <th></th>	80	127916	NUMBER PLATE LAMP, chrome	2	
83       601721A       LENS, clear glass       2         84       57H5368       GASKET (lamp to number plate)       2         85       GLB989*       BULB       a/r         *Note: A single bulb was used originally in this lamp. However, all lamps offered more recently are of a slightly modified design & contain two bulbs.         86       AJD8012Z       NUT (lamp to number plate)       4         87       WL700101       WASHER, locking       4         88       GHF306       WASHER, plain       4         89       27H6713       CONNECTOR       4       electrical bullet terminal         Number Plate Lamps - Late 1500 (G-AN6-169644 on)         95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	81	502264	COVER, chrome	2	
84       57H5368       GASKET (lamp to number plate)       2         85       GLB989*       BULB       a/r         *Note: A single bulb was used originally in this lamp. However, all lamps offered more recently are of a slightly modified design & contain two bulbs.         86       AJD8012Z       NUT (lamp to number plate)       4         87       WL700101       WASHER, locking       4         88       GHF306       WASHER, plain       4         89       27H6713       CONNECTOR       4       electrical bullet terminal         Number Plate Lamps - Late 1500 (G-AN6-169644 on)         95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	82	17H5385	SCREW (cover/lens to back plate)	2	
85         GLB989*         BULB         a/r           *Note: A single bulb was used originally in this lamp. However, all lamps offered more recently are of a slightly modified design & contain two bulbs.           86         AJD8012Z         NUT (lamp to number plate)         4           87         WL700101         WASHER, locking         4           88         GHF306         WASHER, plain         4           89         27H6713         CONNECTOR         4         electrical bullet terminal           Number Plate Lamps - Late 1500 (G-AN6-169644 on)           95         83H335         NUMBER PLATE LAMP, black         2           96         7H5120         COVER, black         2           97         601721A         LENS, clear glass         2           98         57H5368         GASKET (lamp to number plate)         2           99         GLB989         BULB         4           100         7H5123         SUNDRIES KIT         2           101         AJD8012Z         NUT, lamp to number plate         4	83	601721A	LENS, clear glass	2	
Note: A single bulb was used originally in this lamp. However, all lamps offered more recently are of a slightly modified design & contain two bulbs.           86         AJD8012Z         NUT (lamp to number plate)         4           87         WL700101         WASHER, locking         4           88         GHF306         WASHER, plain         4           89         27H6713         CONNECTOR         4         electrical bullet terminal           Number Plate Lamps - Late 1500 (G-AN6-169644 on)           95         83H335         NUMBER PLATE LAMP, black         2           96         7H5120         COVER, black         2           97         601721A         LENS, clear glass         2           98         57H5368         GASKET (lamp to number plate)         2           99         GLB989         BULB         4           100         7H5123         SUNDRIES KIT         2           101         AJD8012Z         NUT, lamp to number plate         4	84	57H5368	GASKET (lamp to number plate)	2	
modified design & contain two bulbs.           86         AJD8012Z         NUT (lamp to number plate)         4           87         WL700101         WASHER, locking         4           88         GHF306         WASHER, plain         4           89         27H6713         CONNECTOR         4         electrical bullet terminal           Number Plate Lamps - Late 1500 (G-AN6-169644 on)           95         83H335         NUMBER PLATE LAMP, black         2           96         7H5120         COVER, black         2           97         601721A         LENS, clear glass         2           98         57H5368         GASKET (lamp to number plate)         2           99         GLB989         BULB         4           100         7H5123         SUNDRIES KIT         2           101         AJD8012Z         NUT, lamp to number plate         4	85	GLB989*	BULB	a/r	
86       AJD80 12Z       NUT (lamp to number plate)       4         87       WL700101       WASHER, locking       4         88       GHF306       WASHER, plain       4         89       27H6713       CONNECTOR       4       electrical bullet terminal         Number Plate Lamps - Late 1500 (G-AN6-169644 on)         95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	*Note	e: A single bulb was	used originally in this lamp. However, all I	lamps offer	red more recently are of a slightly
87         WL700101         WASHER, locking         4           88         GHF306         WASHER, plain         4           89         27H6713         CONNECTOR         4         electrical bullet terminal           Number Plate Lamps - Late 1500 (G-AN6-169644 on)           95         83H335         NUMBER PLATE LAMP, black         2           96         7H5120         COVER, black         2           97         601721A         LENS, clear glass         2           98         57H5368         GASKET (lamp to number plate)         2           99         GLB989         BULB         4           100         7H5123         SUNDRIES KIT         2           101         AJD8012Z         NUT, lamp to number plate         4	modi	ified design & conta	in two bulbs.		
88       GHF306       WASHER, plain       4         89       27H6713       CONNECTOR       4       electrical bullet terminal         Number Plate Lamps - Late 1500 (G-AN6-169644 on)         95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	86	AJD8012Z	NUT (lamp to number plate)	4	
89       27H6713       CONNECTOR       4       electrical bullet terminal         Number Plate Lamps - Late 1500 (G-AN6-169644 on)         95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	87	WL700101	WASHER, locking	4	
Number Plate Lamps - Late 1500 (G-AN6-169644 on)           95         83H335         NUMBER PLATE LAMP, black         2           96         7H5120         COVER, black         2           97         601721A         LENS, clear glass         2           98         57H5368         GASKET (lamp to number plate)         2           99         GLB989         BULB         4           100         7H5123         SUNDRIES KIT         2           101         AJD8012Z         NUT, lamp to number plate         4	88	GHF306	WASHER, plain	4	
95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	89	27H6713	CONNECTOR	4	electrical bullet terminal
95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4					
95       83H335       NUMBER PLATE LAMP, black       2         96       7H5120       COVER, black       2         97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	Nun	nber Plate Lan	nps - Late 1500 (G-AN6-169644 on)		
97       601721A       LENS, clear glass       2         98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	95	83H335	NUMBER PLATE LAMP, black	2	
98       57H5368       GASKET (lamp to number plate)       2         99       GLB989       BULB       4         100       7H5123       SUNDRIES KIT       2         101       AJD8012Z       NUT, lamp to number plate       4	96	7H5120	COVER, black	2	
99 GLB989 BULB 4 100 7H5123 SUNDRIES KIT 2 101 AJD8012Z NUT, lamp to number plate 4	97	601721A	LENS, clear glass	2	
100 7H5123 SUNDRIES KIT 2 101 AJD8012Z NUT, lamp to number plate 4	98	57H5368	GASKET (lamp to number plate)	2	
101 AJD8012Z NUT, lamp to number plate 4	99	GLB989	BULB	4	
	100	7H5123	SUNDRIES KIT	2	
102 WL700101 WASHER, locking 4	101	AJD8012Z	NUT, lamp to number plate	4	
	102	WL700101	WASHER, locking	4	

Original black number plate lamps were as described above. Spurious replacement lamps of similar

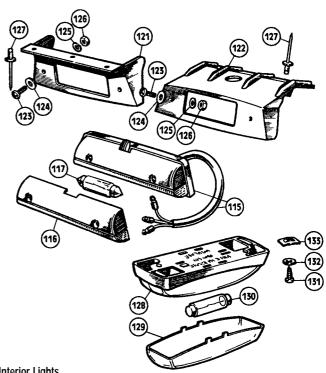
	Part Number	Description	Qty.	Details
No			Rea.	

(Continued from previous column)

Be warned - replacement lamps may not be repaired by the above components. The simple identification test is the cover material: metal almost certainly means original, plastic means replacement.



105	ADU3645	REAR FOG LAMP (Cibie)	1	alternatives
	ADU3392	REAR FOG LAMP (Wipac)	1.	
107	GLB382	BULB, 21Watt	1	
108	5L62	GROMMET (cables through boot floor)	2	



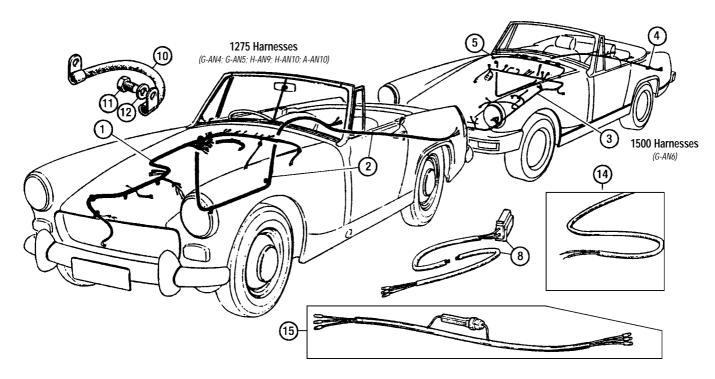
# Interior Lights

1275 models (G-AN5-89515 on; H-AN10-86303 on; A-AN10); 1500 models (G-AN6)

	115 BHA5138	LAMP, courtesy, chrome	1 ] from G-AN5-89515				
	116 27H3590	LENS, courtesy lamp (chrome cover)	1 to G-AN6-200000;				
	117 GLB239	BULB, festoon type	1  from H-AN10-86303; A-AN10				
	ADU1003	LAMP, courtesy, black	1 ]				
	27H3590B	LENS, courtesy lamp (black cover)	1 from G-AN6-200001				
	GLB239	BULB, festoon type	1 ]				
	121 AHA9769	PLINTH (interior lamp mounting)	1 to G-AN6-212000.				
	122 AHA9767	PLINTH (interior lamp mounting)	1 from G-AN6-212001				
	123 PMZ208	SCREW, lamp to plinth	2				
	124 PWZ202	WASHER, plain	2				
	125 LWZ202	WASHER, locking	2				
	126 ANZ102	NUT	2				
	127 RA608176	RIVET*, plinth to fascia or console	3				
*Note: the earlier lamp plinth (AHA9769), should be riveted to the underside of the fascia. The later plinth,							
	AHA9767, should be ri	veted to the top of the radio console.					
	128 BHA5040	LAMP (luggage compartment)	1				
	129 37H5923	LENS	1				
	130 GLB239	BULB, festoon type	1				
	131 GHF422	SCREW (self tapping)	2				
	132 PWZ202	WASHER, plain	2				
	133 GHF700	SPIRE NUT (for screw)	2				

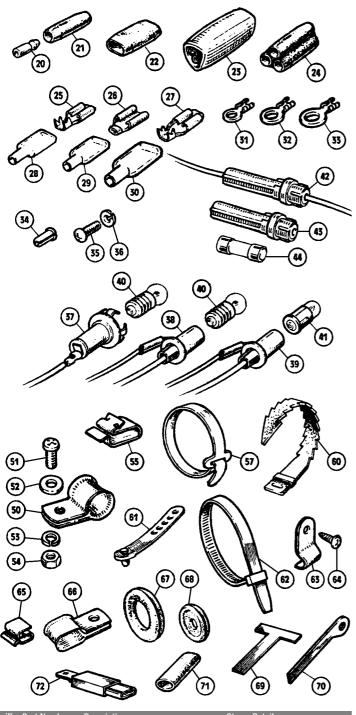
(Continued in next column)

# 152 Wiring Harness, Bulb Holders & Connectors



ill. No	Part Number Description	Qty. Rea.	Details	ill. No	Part Number	Description	Qty. Rea.	Details
INO		Req.		INO			Req.	
127	75 Harnesses (G-AN4; G-AN5; H-AN9; H-AN10; A-AN10)			150	00 Harnesses (	(G-AN6)		
1	AHA8156 MAIN HARNESS, cloth bound (dynamo, positive earth, no reversing lights)	1 ]	to G-AN4-58111; to H-AN9-70267	3	CHA455 (no oil warning lig	MAIN HARNESS, PVC taped ght, single speed wipers)	1	to G-AN6-200000
	AHA8422 MAIN HARNESS, cloth bound (dynamo, positive earth, with reversing lights)	1 ]	G-AN4-58112 to 60459; H-AN9-70268 to 72040		CHA767 (with oil warning	MAIN HARNESS, PVC taped light, single speed wipers)	1	G-AN6-200001 to 212000
	AHA8694 MAIN HARNESS, cloth bound (dynamo, negative earth, with rev. lights & oil filter light)	1 ]	G-AN4-60460 to 66225; H-AN9-72041 to 77590		CHA799 (with two speed v	MAIN HARNESS, PVC taped wipers)	1	from G-AN6-212001
	HMP215023 MAIN HARNESS, cloth bound (dynamo, negative earth, headlamp flash, no oil filter light)	1 ]	from G-AN4-66226; from H-AN9-77591	4	CHA432 (no electric fuel p	BODY HARNESS, PVC taped oump)	1	
	AHA9612 MAIN HARNESS, PVC taped (dynamo, toggle switches and headlamp dip & horn on stalk, no interior lamps)	1	to G-AN5-89514; to H-AN10-86302	5		FASCIA HARNESS, PVC taped wipers)	1	to G-AN6-200000
	AHA9763 MAIN HARNESS, PVC taped (dynamo, toggle switches, interior lamps and headlamp dip on stalk, horn in centre of steering wheel)	1	G-AN5-89515 to 105500; H-AN10-86303 on; A-AN10		CHA746 (with oil warning CHA802	FASCIA HARNESS, PVC taped light, single speed wipers)  FASCIA HARNESS, PVC taped	1	G-AN6-200001 to 212000 from G-AN6-212001
	AHA9923 MAIN HARNESS, PVC taped (dynamo, rocker switches, accessory fuse)	1 ]	G-AN5-105501 to 128262	Su	with two speed with t	wipers) Cables (All Models)		I
	CHA46 MAIN HARNESS, PVC taped (alternator, rocker switches, no hazard warning lights)	1 ]	G-AN5-128263 to 138800	8	AHA7771 AHA7772	CABLE (RHD) (dip switch to Main harness) CABLE (LHD)	1	G-AN4; H-AN9
	CHA214 MAIN HARNESS, PVC taped (alternator, rocker switches, with hazard warning lights)	1 ]	G-AN5-138801 on			(dip switch to Main harness)	•	
2	AHA7637 BODY HARNESS, cloth bound (no reversing lights, central number plate lamp)	1 ]	to G-AN4-58111; to H-AN9-70267	10	2K6167 SH606051	CABLE, earth (power unit to body)  SCREW (power unit earth cable to floor)	1	G-AN4; G-AN5;   H-AN9; H-AN10; A-AN10
	AHA8421 BODY HARNESS, cloth bound	1 ]	G-AN4-58112 on;	12	GHF333	WASHER, locking	1	J
	(with reversing lights, central number plate lamp)	J	H-AN9-70268 on	14	AHH5452 AHA7895	CABLE, earth (power unit to body) CABLE	1 a/r	G-AN6 G-AN4 and H-AN9
	AHA9614 BODY HARNESS, PVC taped (no interior lamps, two number plate lamps)	1 ]	to G-AN5-89514; to H-AN10-86302	15	AHA9199	(number plate lamps to body harness)  CABLE (cigar lighter to main harness)	a/r	Germany only optional extra fitment only
	AHA9765 BODY HARNESS, PVC taped (with interior lamps, two number plate lamps)	1 ]	G-AN5-89515 on; H-AN10-86303 on; A-AN10			(ciyai iigitlei to maiii namess)		ı nuncik Ony

# Wiring Harness, Bulb Holders & Connectors | 153



ill. No	Part Number	Description	Qty. Req.	Details

# **Fittings & Connectors**

20	003632	BULLET CONNECTOR, male	a/r ]	soldered
	GHF2200	BULLET CONNECTOR, male	a/r ]	(alternatives)
21	2H3406	CONNECTOR, female, single (2 way)	a/r ]	
22	RTC603A	CONNECTOR, female, double (4 way)	a/r	common contacts
23	BHA4460	CONNECTOR, female, triple (6 way)	a/r ]	
24	2H4992	CONNECTOR, female, triple (6 way)	a/r	Insulated contacts
25	13H2050	CONNECTOR, Lucar (3/16" wide)	a/r	6 amp
26	RTC220A	CONNECTOR, Lucar (/4" wide)	a/r	17.5 amp
27	47H5419	CONNECTOR, Lucar (3/8" wide)	a/r	35 amp
28	BMK449	INSULATOR	a/r	(for 3/16" Lucar connector)
29	511269	INSULATOR	a/r	(for 1/4" Lucar connector)
30	515399	INSULATOR	a/r	(for 3/8" Lucar connector)
31	17H5287	EYELET, 3/16 hole	a/r	
32	2H4528	EYELET, 1/4 hole	a/r	
33	13H625	EYELET, 5/16 hole	a/r	
34	27H6713	BULLET CONNECTOR, male	a/r	(push-on)

1	ill.	Part Number	Description	Qty.		Details
	No	Part Number	Description	Req		Details
l	25	0000000	CCDEW haveness (outle to hullshood)	4		
l	35 36	SE604061 GHF331	SCREW, harness (arth to bulkhead) WASHER, locking	1		
l	37	AEU1313A	BULB HOLDER, claw fitting (MES type)	a/r	1	screw in bulb
l	38	507799	BULB HOLDER, sleeve fitting (MES type)	a/r	ł	SCIEW III DUID
l	39	UKC4187	BULB HOLDER, sleeve fitting (BA7 type)	a/r	•	bayonet bulb
	40	GLB987	BULB, 2.2W, (screw fitting) (MES type)	a/r		
l	41	GLB281	BULB, 2.0W, (bayonet fitting) (BA7 type)	a/r		
l	42	UKC4446	IN-LINE FUSE HOLDER	a/r	1	Includes wires,
l						terminals & spring
l	43	27H3588	FUSE HOLDER ONLY	a/r		
	44	GFS3005	FUSES, (5 Amp)	a/r	1	
l		GFS3010	FUSES, (10 Amp)	a/r	ļ	
		GFS3015	FUSES, (15 Amp)	a/r	ł	pack of five
		GFS3020	FUSES, (20 Amp)	a/r	ł	
		GFS3025 GFS3035	FUSES, (25 Amp) FUSES, (35 Amp)	a/r a/r	ł	
		GFS3050	FUSES, (50 Amp)	a/r	ł	
	50	PCR709	'P' CLIP (fuse holder attaching)	a/r	,	
	00	PCR607	'P' CLIP	3		
			wheel arch, headlamps and side lamps harnes			
		PCR1009	'P' CLIP (harness to footwell)	1		
		PCR507	'P' CLIP	2		
		. ,	tail lamp fixing stud)			
		PCR807	'P' CLIP (battery cable to footwell)	1		
		PCR411	'P' CLIP r unit cables to fuel tank and floor)	a/r		
		PCR311	'P' CLIP	1	1	from G-AN6-200001
			der wire to thermostat housing)			110111 0 71110 200001
	51	PMZ308	SCREW ('P' clip attachment)	a/r		
	52	GHF306	WASHER, plain	a/r		
	53	WL700101	WASHER, locking	a/r		
	54	GHF206	NUT, clip attaching	a/r		
	55	BHA4232	CLIP, locking platform	1	1	harness to bonnet
l		BHA4233	CLIP, harness to bonnet	2	]	locking platform
	57	AHH7108	CLIP, cables to steering column	1/2	ł	quantity increased when
	60	13H6107	CABLE TIE, 'fir tree' type	a/r	J	steering lock fitted
	61	BHA4225	CABLE TIE (number plate lamp harness)	2	1	G-AN4 and H-AN9
	01	DINALLO	ONDEE THE (Humber plate lamp harness)	_	ł	Germany only
	62	GHF1265	CABLE TIE, ratchet type (3.5" long)	a/r	i	comany only
		GHF1266	CABLE TIE, ratchet type (5.25" long)	a/r	1	can be used to
		GHF1267	CABLE TIE, ratchet type (8.75" long)	a/r		replace items 57, 60, 61
		GHF1268	CABLE TIE, ratchet type (12.25" long)	a/r	]	
	63	CHR405	CLIP, body harness to sill	2		
	64	AB606031	SCREW, self tapping	2		clip to sill
	65	BMK385	CLIP (fuel pump & sender cables to tank)	4		
	66	AHH6690	'P' CLIP (battery cable/capillary to footwell)			to G-AN6-200000
	67	RFR305	GROMMET bulkhead, footwell & wiper motor cable throug	3 ah hul	νh	aad)
		RFR303	GROMMET	3	KII	cauj
			er plate lamps and tank sender unit)	·		
		2H2065	GROMMET, main harness	a/r		
	68	RFR110	GROMMET, front lamp wires	3		
		RFR104	GROMMET	2	1	G-AN4 and H-AN9
		(harness to number		a /	J	Germany only
	60	5L489	GROMMET, main harness HARNESS TAG, welded to bodywork	a/r		
	69 70	603559 ULC1178	HARNESS TAG, bolted to gearbox	a/r 1		G-AN6
	71	503213	INSULATING SLEEVE (on loom tag)	a/r		O AND
	72	AAU5034A	DIODE, brake warning circuit	1/2		from G-AN6-212001
I	-		,			

# **Fitting a Wiring Harness**

Obtain your new harness before removing the old one. This is not really stating the obvious;

A number of owners in the past have enthusiastically disembowelled the electrical systems of their cars, only to discover that there was no 'off the shelf' replacement part currently available.

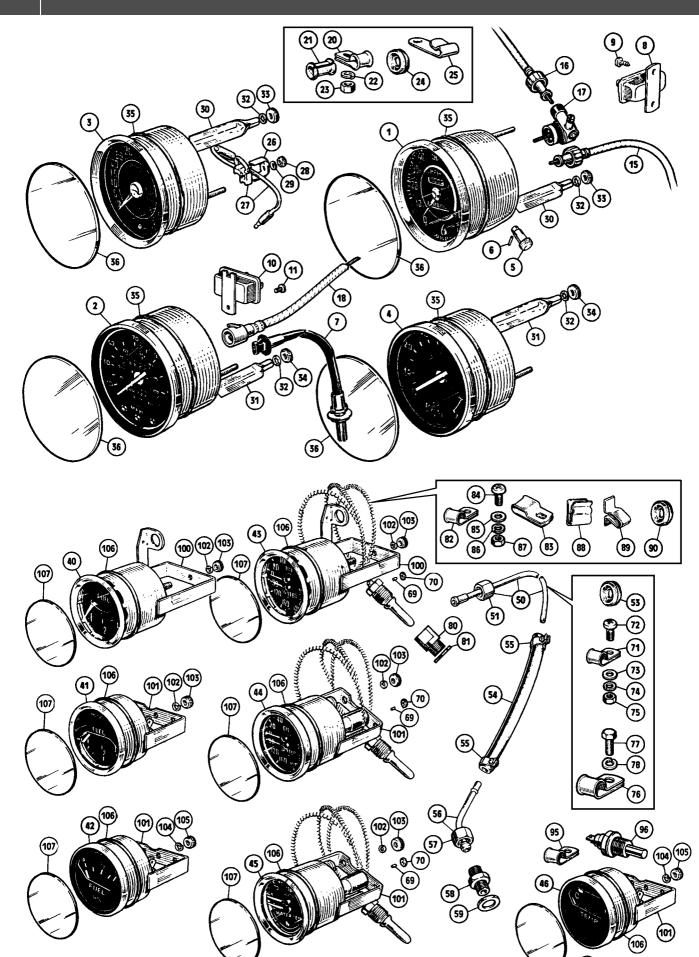
Secondly, get a copy of the wiring diagram specific to the year & build condition of your car. These are usually reproduced in the factory service manual or handbook.

Remove the battery from the car before starting harness replacement.

This ensures that you will not be tempted to have a trial run before the job is completed.

If the fasteners securing the old harness to the body are not to be replaced, they should be carefully removed and their positions noted. Make a sketch of the less memorable routing details of the harness; under-bonnet, boot and floor photographs would also be most helpful.

When disconnecting the old harness from switches & instruments, it would be advisable to cut the old wiring from each item so that an 'inch or so' is still attached to it. By so doing, the quandary of matching a clump of wires to the terminals on a switch may be easily resolved; simply remove the old stump of wire from the terminal and replace with the corresponding coloured wire from the new harness



211	D. IN I	D	01	D 1.11	
Ш.	Part Number	Description	uty.	Details	
No			Rea.		
MO			Red.		

#### Instruments & Cables

See also Accessories.

# **Please Read Before Ordering Instruments**

Note that the easiest instrument identifier is the 'Smiths number' on the face of the gauge (shown in brackets on this page). The part numbers listed here are for new instruments.

Reconditioned exchange instruments are also available and may be ordered by adding an 'E' suffix to the part number of the corresponding new instrument (exchange instrument part numbers are not shown here because of space constraints - they are, however, all in the price list).

When purchasing a reconditioned exchange unit, please note that your old unit must be returned to us (fully assembled and in a condition judged by the vendor to be repairable) at the time of purchase;

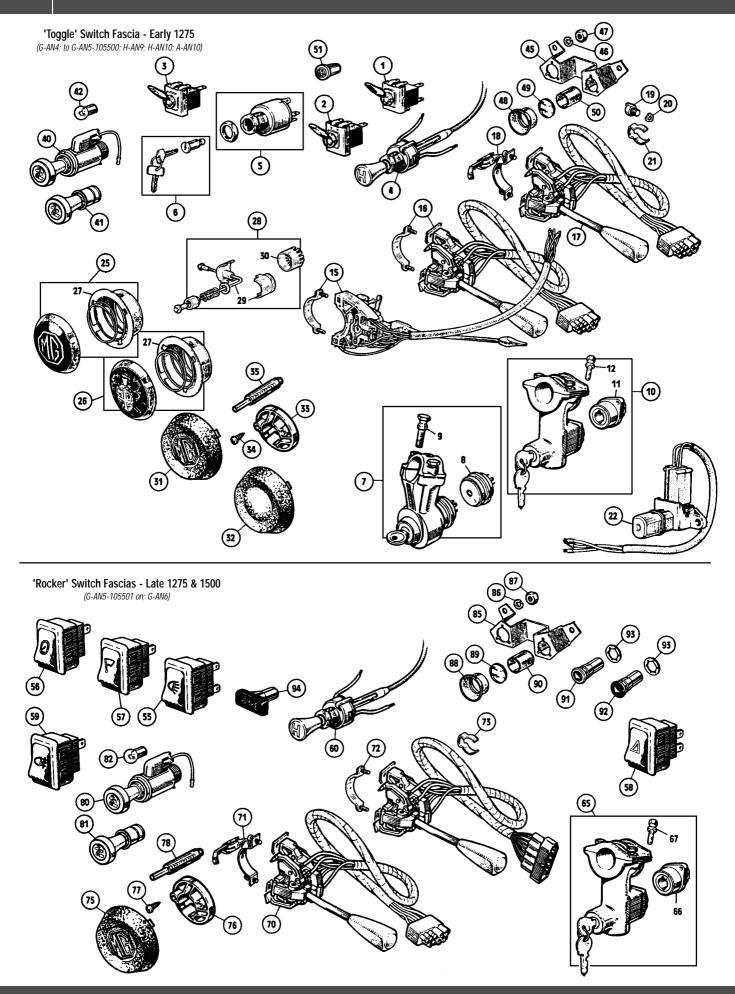
otherwise a surcharge will be levied, to be refunded at the time when the old unit is returned.

# **Speedometers and Tachometers**

1 BHA4436 SPEEDO', 'MPH' (SN6142/01) 1 BHA4437 SPEEDO', 'MPH', Germany (SN6142/04) 1 BHA4652 SPEEDO', 'MPH', Germany (SN6142/02) 1 BHA4634 SPEEDO', 'MPH', Germany (SN6142/05) 1 BHA4635 SPEEDO', 'MPH', Germany (SN6142/03) 1 BHA4635 SPEEDO', 'MPH', Germany (SN6142/03) 1 BHA4634 SPEEDO', 'MPH', Germany (SN6142/03) 1 BHA4635 SPEEDO', 'MPH', Germany (SN6142/03) 1 BHA4844 SPEEDO', 'MPH' (SN6142/06) 1 1 BHA4845 SPEEDO', 'MPH' (SN6142/06) 1 1 BHA4846 SPEEDO', 'MPH' (SN6142/06) 1 1 BHA5277 SPEEDO', 'MPH' (SN6142/08) 1 1 BHA5277 SPEEDO', 'MPH' (SN6142/08) 1 1 BHA5341 SPEEDO', 'MPH' (SN6142/08) 1 1 BHA5341 SPEEDO', 'MPH' (SN6142/08) 1 70 G-AN6-200000 1 1 BHA5341 SPEEDO', 'MPH' (SN6142/08) 1 70 G-AN6-200000 1 1 BHA5341 SPEEDO', 'MPH' (SN6142/08) 1 70 G-AN6-200000 1 1 BHA5341 SPEEDO', 'MPH' (SN6142/08) 1 70 G-AN6-200000 1 1 BHA5221 TACHO', (RVI.2418/01) 1 3 alternatives: 1 1 BHA4639 TACHO', (RVI.2418/01) 1 3 alternatives: 1 1 BHA4710 TACHO', (RVI.2418/01) 1 3 alternatives: 1 1 BHA4710 TACHO', (RVI.2418/01) 1 3 alternatives: 1 1 BHA5222 TACHO', (RVC.2415/01AR) 1 3 alternatives: 1 1 BHA5220 TACHO', (RVC.2415/01AR) 1 3 alternatives: 1 1 G-AN6-200000 1 H-AN9-72041 on: H-AN10: A-AN10 1 1 G-AN6-200000 1 1 G-AN6-200000 1 H-AN9-72041 on: H-AN10: A-AN10 1 1 G-AN6-200000 1 H-AN9-72041 on: H-AN10: A-AN10 1 G-AN6-200000 1 1 G-AN6-20000
BHA4652   SPEEDO', 'MPH', Germany (SN6142/04)   1   to G-AN4-66225; BHA4634   SPEEDO', 'KPH', Germany (SN6142/05)   1   to H-AN9-77590   BHA4635   SPEEDO', 'MPH', Germany (SN6142/03)   1   BHA4635   SPEEDO', 'MPH', Germany (SN6142/03)   1   BHA4844   SPEEDO', 'MPH' (SN6142/06)   1   G-AN4-66226 on; BHA4845   SPEEDO', 'KPH', Germany (SN6142/08)   1   H-AN9-77591 on; H-AN10-77591 on; H-AN10-775
BHA4634   SPEEDO', 'KPH', Germany (SN6142/02)   1
BHA4634   SPEEDO', 'KPH', Germany (SN6142/02)   1
BHA4653   SPEEDO', 'MPH', Germany (SN6142/05)   1     BHA4635   SPEEDO', 'KPH', Germany (SN6142/03)   1     BHA4844   SPEEDO', 'KPH', Germany (SN6142/07)   1   10 G-AN5-141411;     BHA4845   SPEEDO', 'KPH' (SN6142/07)   1   10 G-AN5-141411;     BHA4846   SPEEDO', 'KPH' Germany (SN6142/08)   1   H-AN9-77591 on;     H-AN10; A-AN10   H-AN10; A-AN10     BHA5277   SPEEDO', 'MPH' (SN6142/08S)   1   G-AN5-141412 on     BHA5341   SPEEDO', 'MPH' (SN6142/09S)   1   TO G-AN6-200000     2
BHA4635   SPEEDO', 'KPH', Germany (SN6142/03)   1   BHA4844   SPEEDO', 'KPH' (SN6142/06)   1   to G-AN5-141411;   to G-AN5-141411;   BHA4846   SPEEDO', 'KPH' (SN6142/07)   1   to G-AN5-141411;   to G-AN5-141411;   BHA4846   SPEEDO', 'KPH' Germany (SN6142/08)   1   H-AN9-77591 on;   H-AN10: A-AN10   H-AN10: A-
BHA4844 SPEEDO', 'MPH' (SN6142/06) 1   G-AN4-66226 on; BHA4845 SPEEDO', 'KPH' (SN6142/07) 1   to G-AN5-141411; BHA4846 SPEEDO', 'KPH' (SN6142/08) 1   to G-AN5-141411; BHAN9-77591 on; H-AN10; A-AN10   To G-AN6-200000   To G-AN6-200000   To G-AN6-200001   To G-AN6-200000   To G-AN6-200001   To G-AN6-200000
BHA4845 SPEEDO', 'KPH' (SN6142/07)
BHA4846   SPEEDO', 'KPH' Germany (SN6142/08)   1
H-AN10; A-AN10
BHA5277 SPEEDO', 'MPH' (SN6142/06BS) 1 G-AN5-141412 on BHA5341 SPEEDO', 'MPH' (SN6142/09S) 1 To G-AN6-200000 2 PKC643 SPEEDO', 'MPH' (SN6211/14SA) 1 G-AN6-200001 on 3 BHA4639 TACHO', (RVI.2401/01) 1 To G-AN4-00459; to H-AN9-72040 37H4321 TACHO', (RVI.2418/01) 1 alternatives: BHA4710 TACHO', (RVI.2430/01) 1 G-AN4-00460 on; to G-AN5-128262; H-AN9-72041 on; H-AN10; A-AN10 BHA5222 TACHO', (RVC.2415/00AF) 1 G-AN5-128263 on; to G-AN5-128263 on; to G-AN5-128263 on; to G-AN6-200000 on 5 37H613 KNOB, trip meter reset, speedometer 1 G-AN6-200001 on 5 37H613 KNOB, trip meter reset, speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H3745 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000 on 6 17H38746 PIN, knob to speedometer 1 G-AN6-200000
BHA5341 SPEEDO', 'MPH' (SN6142/09S) 1 To G-AN6-200000  PKC643 SPEEDO', 'MPH' (SN6211/14SA) 1 G-AN6-200001 on  BHA4639 TACHO', (RVI.2401/01) 1 To G-AN4-60459;
2 PKC643 SPEEDO', 'MPH' (SN6211/14SA) 1
3 BHA4639 TACHO', (RVI.2401/01) 1 ] To G-AN4-60459; to H-AN9-72040 37H4321 TACHO', (RVI.2418/01) 1 ] alternatives: BHA4710 TACHO', (RVI.2430/01) 1 ] alternatives: BHA4710 TACHO', (RVI.2430/01) 1 ] G-AN4-60460 on; to G-AN5-128262; H-AN9-72041 on; H-AN10; A-AN10 BHA5222 TACHO', (RVC.2415/01AR) 1 ] alternatives: BHA5220 TACHO', (RVC2415/00AF) 1 ] G-AN5-128263 on; to G-AN5-128263 on; to G-AN5-128263 on; to G-AN6-200000  4 TKC1706 TACHO', (RVC2414/01F) 1 G-AN6-200001 on 5 37H613 KN0B, trip meter reset, speedometer 1 ] G-AN6-200001 on 6 17H3745 PIN, knob to speedometer 1 ] G-AN6-200000; H-AN9: H-AN10: A-AN10 7 159737A CABLE, trip meter reset (speedometer) 1 G-AN6-200001 on 8 BHA4602 VOLTAGE STABILISER 1 G-AN6-200001 on 8 BHA4602 VOLTAGE STABILISER 1 G-AN6-200000; H-AN9: 72041 on; H-AN10: A-AN10 10 148876A VOLTAGE STABILISER 1 G-AN6-200001 on 11 AB604032 SCREW (voltage stabiliser to bulkhead) 1 G-AN6-200001 on 12 GSD114 CABLE, speedo' drive, 66" (RHD) 1 G-AN6-200001 on 13 GSD14 CABLE, speedo' drive, 75" (LHD) 1 H-AN9: H-AN10: A-AN10 14 GSD28 CABLE, speedo' drive, 75" (LHD) 1 to G-AN6-200000 15 GSD38* CABLE, speedo' drive, 75" (LHD) 1 G-AN6-200001 on 17 BHA4794 ANGLE DRIVE, speedo' to cable 1 I G-AN6-200001 on 18 GSD337 CABLE, speedo' drive, 75" (RHD) 1 G-AN6-200001 on 18 GSD338* CABLE, speedo' drive, 63" (LHD) 1 G-AN6-200001 on 19 Note: LHD 1500 Midgets were North American specification only: the cables included here service those cars
37H4321 TACHO¹, (RVI.2418/01) 1   alternatives: BHA4710 TACHO¹, (RVI.2430/01) 1   alternatives: G-AN4-60460 on; to G-AN5-128262; H-AN9-72041 on; H-AN10; A-AN10 BHA5222 TACHO¹, (RVC.2415/01AR) 1   alternatives: BHA5220 TACHO¹, (RVC2415/00AF) 1   G-AN5-128263 on; to G-AN5-128263 on; to G-AN5-128263 on; to G-AN5-128263 on; to G-AN6-200000  4 TKC1706 TACHO¹, (RVC2414/01F) 1   G-AN6-200001 on 5 37H613 KN0B, trip meter reset, speedometer 1   G-AN6-200001 on 6 17H3745 PIN, knob to speedometer 1   G-AN6-200001 on 7 159737A CABLE, trip meter reset (speedometer) 1   G-AN6-200000; H-AN9: H-AN10: A-AN10 8 BHA4602 VOLTAGE STABILISER 1   G-AN6-200001 on 8 BHA4602 VOLTAGE STABILISER 1   G-AN6-200001 on 1 48876A VOLTAGE STABILISER 1   G-AN6-200001 on 1 48876A VOLTAGE STABILISER 1   GAN6-200001 on 1 48876A CABLE, speedo¹ drive, 66" (RHD) 1   GAN6-200001 on 1 48876A CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 48876A CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200000   1 4 AN03499* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200000   1 5 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200000   1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on 1 6 GSD338* CABLE, speedo¹ drive, 78" (RHD) 1   GAN6-200001 on
37H4321   TACHO', (RVI.2418/01)   1   alternatives:   G-AN4-60460 on;   to G-AN5-128262;   H-AN9-72041 on;   H-AN10; A-AN10   H-AN10; A-AN10   to G-AN5-128263 on;   to G-AN6-200000   to G-AN6-200000   to G-AN6-200000   to G-AN6-200000   to G-AN6-200000   to G-AN6-200000   to G-AN6-200001 on   to G-AN6-200001 on   to G-AN6-200001 on   to G-AN6-200001 on   to G-AN6-200000   to G-AN6-20
37H4321   TACHO', (RVI.2418/01)   1   alternatives:   G-AN4-60460 on;   to G-AN5-128262;   H-AN9-72041 on;   H-AN10; A-AN10   H-AN10; A-AN10   to G-AN5-128263 on;   to G-AN6-200000   to G-AN6-200000   to G-AN6-200000   to G-AN6-200000   to G-AN6-200000   to G-AN6-200000   to G-AN6-200001 on   to G-AN6-200001 on   to G-AN6-200001 on   to G-AN6-200001 on   to G-AN6-200000   to G-AN6-20
BHA4710   TACHO', (RVI.2430/01)   1   G-AN4-60460 on; to G-AN5-128262; H-AN9-72041 on; H-AN10; A-AN10   H-AN10; A-AN10; A-
to G-AN5-128262;   H-AN9-72041 on;   H-AN10; A-AN10
H-AN9-72041 on;   H-AN10; A-AN10
H-AN10; A-AN10   H-AN10; A-AN10   Alternatives: BHA5222   TACHO¹, (RVC.2415/00AF)   1   alternatives: G-AN5-128263 on; to G-AN6-200000   1   G-A
BHA5222   TACHO¹, (RVC.2415/01AR)   1   alternatives: BHA5220   TACHO¹, (RVC2415/00AF)   1   G-AN5-128263 on; to G-AN6-200000     TKC1706
BHA5220 TACHO¹, (RVC2415/00AF) 1   G-AN5-128263 on; to G-AN6-200000   4 TKC1706 TACHO¹, (RVC2414/01F) 1   G-AN6-200001 on   5 37H613 KNOB, trip meter reset, speedometer 1   G-AN4: G-AN5:   6 17H3745 PIN, knob to speedometer 1   G-AN4: G-AN5:   to G-AN6-200000:   H-AN9: H-AN10: A-AN10   7 159737A CABLE, trip meter reset (speedometer) 1   G-AN6-200001 on   8 BHA4602 VOLTAGE STABILISER 1   G-AN4-60460 on; G-AN5;   9 AB608031 SCREW (voltage stabiliser to bulkhead) 1   to G-AN6-200000:   H-AN9-72041 on; H-AN10: A-AN10   10 148876A VOLTAGE STABILISER 1   GAN6-200001 on   11 AB604032 SCREW (voltage stabiliser to speedometer) 1   15 GSD114 CABLE, speedo¹ drive, 66" (RHD) 1   G-AN4: G-AN5;   GSD104 CABLE, speedo¹ drive, 75" (LHD) 1   H-AN9: H-AN10: A-AN10   16 GSD288 CABLE, speedo¹ drive, 75" (LHD) 1   to G-AN6-200000   17 BHA4794 ANGLE DRIVE, speedo¹ trive, 75" (LHD) 1   to G-AN6-200000   18 GSD337 CABLE, speedo¹ drive, 51" (RHD) 1   G-AN6-200001 on   19 GSD338* CABLE, speedo¹ drive, 63" (LHD) 1   G-AN6-200001 on   10 AN0te: LHD 1500 Midgets were North American specification only; the cables included here service those cars
to G-AN6-200000
4         TKC1706         TACHO', (RVC2414/01F)         1         G-AN6-200001 on           5         37H613         KNOB, trip meter reset, speedometer         1         ] G-AN4; G-AN5;           6         17H3745         PIN, knob to speedometer         1         ] to G-AN6-200000;           7         159737A         CABLE, trip meter reset (speedometer)         1         G-AN6-200001 on           8         BHA4602         VOLTAGE STABILISER         1         ] G-AN4-60460 on; G-AN5;           9         AB608031         SCREW (voltage stabiliser to bulkhead)         1         to G-AN6-200000;           10         148876A         VOLTAGE STABILISER         1         ] GAN6-200001 on           11         AB604032         SCREW (voltage stabiliser to speedometer)         1         ] GAN6-200001 on           15         GSD114         CABLE, speedo' drive, 66" (RHD)         1         ] G-AN4; G-AN5;           GSD104         CABLE, speedo' drive, 75" (RHD)         1         ] H-AN9; H-AN10; A-AN10           16         GSD288         CABLE, speedo' drive, 75" (LHD)         1         ] to G-AN6-200000           17         BHA4794         ANGLE DRIVE, speedo' to cable         1         ]         I G-AN6-200001 on           18         GSD337 <td< td=""></td<>
5         37H613         KNOB, trip meter reset, speedometer         1         G-AN4: G-AN5;           6         17H3745         PIN, knob to speedometer         1         to G-AN6-200000;           7         159737A         CABLE, trip meter reset (speedometer)         1         G-AN6-200001 on           8         BHA4602         VOLTAGE STABILISER         1         G-AN4-60460 on; G-AN5;           9         AB608031         SCREW (voltage stabiliser to bulkhead)         1         G-AN4-2000000;           10         148876A         VOLTAGE STABILISER         1         GAN6-200001 on           11         AB604032         SCREW (voltage stabiliser to speedometer)         1         GAN6-200001 on           15         GSD114         CABLE, speedo' drive, 66" (RHD)         1         G-AN4; G-AN5;           GSD104         CABLE, speedo' drive, 78" (RHD)         1         H-AN9; H-AN10; A-AN10           AAU3499*         CABLE, speedo' drive, 78" (RHD)         1         to G-AN6-200000           17         BHA4794         ANGLE DRIVE, speedo' drive, 75" (RHD)         1         G-AN6-200001 on           18         GSD337         CABLE, speedo' drive, 63" (RHD)         1         G-AN6-200001 on           *Note: LHD 1500 Midgets were North American specification only; the cables include
6         17H3745         PIN, knob to speedometer         1         to G-AN6-200000; H-AN9; H-AN10; A-AN10           7         159737A         CABLE, trip meter reset (speedometer)         1         G-AN6-200001 on           8         BHA4602         VOLTAGE STABILISER         1         G-AN4-60460 on; G-AN5; to G-AN6-200000; H-AN9-72041 on; H-AN10; A-AN10           9         AB608031         SCREW (voltage stabiliser to bulkhead)         1         to G-AN6-200000; H-AN9-72041 on; H-AN10; A-AN101           10         148876A         VOLTAGE STABILISER         1         GAN6-200001 on           11         AB604032         SCREW (voltage stabiliser to speedometer)         1         I           15         GSD114         CABLE, speedo' drive, 66" (RHD)         1         J         G-AN4: G-AN5; H-AN10; A-AN10           16         GSD288         CABLE, speedo' drive, 78" (RHD)         1         J         H-AN9; H-AN10; A-AN10           17         BHA4794         ANGLE DRIVE, speedo' to cable         1         J         to G-AN6-200000           18         GSD337         CABLE, speedo' drive, 75" (RHD)         1         G-AN6-200001 on           *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
7 159737A CABLE, trip meter reset (speedometer) 1 G-AN6-200001 on 8 BHA4602 VOLTAGE STABILISER 1 G-AN6-200001 on 1 G-AN6-200000: H-AN9-72041 on; H-AN10; A-AN10 1 1 G-AN6-200000: H-AN9-72041 on; H-AN10; A-AN10 1 GAN6-200001 on 1 G-AN6-200001 on 1 GAN6-200001 on 1 GAN6-200000 1 TO GAN6-200001 on 1 GAN6-200001 on
7 159737A CABLE, trip meter reset (speedometer) 1 G-AN6-200001 on 8 BHA4602 VOLTAGE STABILISER 1 G-AN6-200001 on 1 G-AN6-200000: H-AN9-72041 on; H-AN10; A-AN10 1 1 G-AN6-200000: H-AN9-72041 on; H-AN10; A-AN10 1 GAN6-200001 on 1 G-AN6-200001 on 1 GAN6-200001 on 1 GAN6-200000 1 TO GAN6-200001 on 1 GAN6-200001 on
7         159737A         CABLE, trip meter reset (speedometer)         1         G-AN6-200001 on           8         BHA4602         VOLTAGE STABILISER         1         J G-AN4-60460 on; G-AN5;           9         AB608031         SCREW (voltage stabiliser to bulkhead)         1         to G-AN6-200000;           10         148876A         VOLTAGE STABILISER         1         A-AN10           10         148876A         VOLTAGE STABILISER         1         GAN6-200001 on           11         AB604032         SCREW (voltage stabiliser to speedometer)         1         1           15         GSD114         CABLE, speedo' drive, 66" (RHD)         1         G-AN4; G-AN5;           GSD104         CABLE, speedo' drive, 54" (LHD)         1         H-AN9; H-AN10; A-AN10           16         GSD288         CABLE, speedo' drive, 78" (RHD)         1         to G-AN6-200000           17         BHA4794         ANGLE DRIVE, speedo' to cable         1         to G-AN6-200000           18         GSD337         CABLE, speedo' drive, 51" (RHD)         1         G-AN6-200001 on           *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
8         BHA4602         VOLTAGE STABILISER         1         G-AN4-60460 on; G-AN5;           9         AB608031         SCREW (voltage stabiliser to bulkhead)         1         to G-AN6-200000;           H-AN9-72041 on; H-AN10;         A-AN10           10         148876A         VOLTAGE STABILISER         1         GAN6-200001 on           11         AB604032         SCREW (voltage stabiliser to speedometer)         1         1           15         GSD114         CABLE, speedo' drive, 66" (RHD)         1         G-AN4: G-AN5;           GSD104         CABLE, speedo' drive, 54" (LHD)         1         H-AN9; H-AN10; A-AN10           16         GSD288         CABLE, speedo' drive, 78" (RHD)         1         to G-AN6-200000           17         BHA4794         ANGLE DRIVE, speedo' to cable         1         to G-AN6-200000           18         GSD337         CABLE, speedo' drive, 51" (RHD)         1         G-AN6-200001 on           *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
9 AB608031 SCREW (voltage stabiliser to bulkhead) 1 to G-AN6-200000; H-AN9-72041 on; H-AN10; A-AN10  10 148876A VOLTAGE STABILISER 1 GAN6-200001 on  11 AB604032 SCREW (voltage stabiliser to speedometer) 1 GAN6-200001 on  15 GSD114 CABLE, speedo' drive, 66" (RHD) 1 GSD288 CABLE, speedo' drive, 54" (LHD) 1 H-AN9; H-AN10; A-AN10  16 GSD288 CABLE, speedo' drive, 78" (RHD) 1 to G-AN6-200000  17 BHA4794 ANGLE DRIVE, speedo' to cable 1 GSD337 CABLE, speedo' drive, 51" (RHD) 1 GSD338* CABLE, speedo' drive, 63" (LHD) 1 G-AN6-200001 on  *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
H-AN9-72041 on; H-AN10;   A-AN10   A-AN10   A-AN10   A-AN10
A-AN10
10
11         AB604032         SCREW (voltage stabiliser to speedometer)         1           15         GSD114         CABLE, speedo' drive, 66" (RHD)         1         ] G-AN4; G-AN5;           GSD104         CABLE, speedo' drive, 54" (LHD)         1         ] H-AN9; H-AN10; A-AN10           16         GSD288         CABLE, speedo' drive, 78" (LHD)         1         ] to G-AN6-200000           17         BHA4794         ANGLE DRIVE, speedo' to cable         1         ]         1           18         GSD337         CABLE, speedo' drive, 51" (RHD)         1         ] G-AN6-200001 on           *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
15 GSD114 CABLE, speedo' drive, 66" (RHD) 1 G-ANA: G-AN5: 4-AN10 GSD104 CABLE, speedo' drive, 54" (LHD) 1 H-AN9: H-AN10: A-AN10 H-AN399* CABLE, speedo' drive, 78" (RHD) 1 to G-AN6-200000 GABLE, speedo' drive, 75" (LHD) 1 to G-AN6-200000 GABLE, speedo' drive, 75" (LHD) 1 GSD337 CABLE, speedo' drive, 51" (RHD) 1 GSD338* CABLE, speedo' drive, 63" (LHD) 1 G-AN6-200001 on Note: LHD 1500 Midgets were North American specification only: the cables included here service those cars
GSD104   CABLE, speedo' drive, 54" (LHD)   1   H-AN9; H-AN10; A-AN10
16         GSD288         CABLE, speedo' drive, 78" (RHD)         1           AAU3499*         CABLE, speedo' drive, 75" (LHD)         1           17         BHA4794         ANGLE DRIVE, speedo' to cable         1           18         GSD337         CABLE, speedo' drive, 51" (RHD)         1           GSD338*         CABLE, speedo' drive, 63" (LHD)         1         G-AN6-200001 on           *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
AAU3499* CABLE, speedo' drive, 75" (LHD) 1 to G-AN6-200000  17 BHA4794 ANGLE DRIVE, speedo' to cable 1  18 GSD337 CABLE, speedo' drive, 51" (RHD) 1 GSD338* CABLE, speedo' drive, 63" (LHD) 1 G-AN6-200001 on  *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
AAU3499* CABLE, speedo' drive, 75" (LHD) 1 to G-AN6-200000  17 BHA4794 ANGLE DRIVE, speedo' to cable 1  18 GSD337 CABLE, speedo' drive, 51" (RHD) 1 GSD338* CABLE, speedo' drive, 63" (LHD) 1 G-AN6-200001 on  *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
17 BHA4794 ANGLE DRIVE, speedo' to cable 1   18 GSD337 CABLE, speedo' drive, 51" (RHD) 1   GSD338* CABLE, speedo' drive, 63" (LHD) 1   G-AN6-200001 on  *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
18 GSD337 CABLE, speedo' drive, 51" (RHD) 1 GSD338* CABLE, speedo' drive, 63" (LHD) 1 G-AN6-200001 on Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
GSD338* CABLE, speedo' drive, 63" (LHD) 1 J G-AN6-200001 on *Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
*Note: LHD 1500 Midgets were North American specification only; the cables included here service those cars
20 PCR709 CLIP, cable to bulkhead 1
21 ACH8529 FERRULE, rubber 1
22 GHF331 WASHER, locking 1
23 GHF200 NUT, clip to bulkhead 1
24 RFR305 GROMMET (cable through bulkhead) 1
25 1B9132 CLIP (cable to clutch housing) 1 G-AN4; H-AN9
,
25 1B9132 CLIP (cable to clutch housing) 1 G-AN4; H-AN9
25 1B9132 CLIP (cable to clutch housing) 1 G-AN4; H-AN9 26 27H8215 CORE, metal (tachometer) 1 ]
25       1B9132       CLIP (cable to clutch housing)       1       G-AN4; H-AN9         26       27H8215       CORE, metal (tachometer)       1         27       13H784       LOOP, nylon       1       G-AN4; to G-AN5-128262;         28       27H8213       NUT, thumb       1       H-AN9; H-AN10; A-AN10
25       1B9132       CLIP (cable to clutch housing)       1       G-AN4; H-AN9         26       27H8215       CORE, metal (tachometer)       1         27       13H784       LOOP, nylon       1       G-AN4; to G-AN5-128262;         28       27H8213       NUT, thumb       1       H-AN9; H-AN10; A-AN10         29       27H8214       WASHER, locking       1
25       1B9132       CLIP (cable to clutch housing)       1       G-AN4; H-AN9         26       27H8215       CORE, metal (tachometer)       1         27       13H784       LOOP, nylon       1       G-AN4; to G-AN5-128262;         28       27H8213       NUT, thumb       1       H-AN9; H-AN10; A-AN10         29       27H8214       WASHER, locking       1         30       17H3744       STRAP (speedo/tacho retaining)       4       to G-AN6-200000
25       1B9132       CLIP (cable to clutch housing)       1       G-AN4; H-AN9         26       27H8215       CORE, metal (tachometer)       1         27       13H784       LOOP, nylon       1       G-AN4; to G-AN5-128262;         28       27H8213       NUT, thumb       1       H-AN9; H-AN10; A-AN10         29       27H8214       WASHER, locking       1         30       17H3744       STRAP (speedo/tacho retaining)       4       to G-AN6-200000         31       17H1339       STRAP (speedo/tacho retaining)       4       G-AN6-200001 on
25       1B9132       CLIP (cable to clutch housing)       1       G-AN4; H-AN9         26       27H8215       CORE, metal (tachometer)       1         27       13H784       LOOP, nylon       1       G-AN4; to G-AN5-128262;         28       27H8213       NUT, thumb       1       H-AN9; H-AN10; A-AN10         29       27H8214       WASHER, locking       1         30       17H3744       STRAP (speedo/tacho retaining)       4       to G-AN6-200000         31       17H1339       STRAP (speedo/tacho retaining)       4       G-AN6-200001 on         32       WF704061       WASHER, locking       4
25       189132       CLIP (cable to clutch housing)       1       G-AN4; H-AN9         26       27H8215       CORE, metal (tachometer)       1       ]         27       13H784       LOOP, nylon       1       ]       G-AN4; to G-AN5-128262;         28       27H8213       NUT, thumb       1       H-AN9; H-AN10; A-AN10         29       27H8214       WASHER, locking       1         30       17H3744       STRAP (speedo/tacho retaining)       4       to G-AN6-200000         31       17H1339       STRAP (speedo/tacho retaining)       4       G-AN6-200001 on         32       WF704061       WASHER, locking       4         33       17H1304       NUT, thumb (instrument retaining)       4       to G-AN6-200000
25       189132       CLIP (cable to clutch housing)       1       G-AN4; H-AN9         26       27H8215       CORE, metal (tachometer)       1         27       13H784       LOOP, nylon       1       G-AN4; to G-AN5-128262;         28       27H8213       NUT, thumb       1       H-AN9; H-AN10; A-AN10         29       27H8214       WASHER, locking       1         30       17H3744       STRAP (speedo/tacho retaining)       4       to G-AN6-200000         31       17H1339       STRAP (speedo/tacho retaining)       4       G-AN6-200001 on         32       WF704061       WASHER, locking       4         33       17H1304       NUT, thumb (instrument retaining)       4       to G-AN6-200000         34       17H1304       NUT, thumb (instrument retaining)       4       G-AN6-200001 on
25       189132       CLIP (cable to clutch housing)       1       G-AN4; H-AN9         26       27H8215       CORE, metal (tachometer)       1       ]         27       13H784       LOOP, nylon       1       ]       G-AN4; to G-AN5-128262;         28       27H8213       NUT, thumb       1       H-AN9; H-AN10; A-AN10         29       27H8214       WASHER, locking       1         30       17H3744       STRAP (speedo/tacho retaining)       4       to G-AN6-200000         31       17H1339       STRAP (speedo/tacho retaining)       4       G-AN6-200001 on         32       WF704061       WASHER, locking       4         33       17H1304       NUT, thumb (instrument retaining)       4       to G-AN6-200000

ill. No	Part Number	Description	Qty. Reg.	Details
	diliary Gauges			
40	BHA4381	FUEL, externally lit (FG2530/70)	1 1	to G-AN4-60459;
40	DHA4301	FUEL, externally lit (FG2550/70)	']	to H-AN9-72040
41	BHA4736	FUEL, internally lit (BF2226/00)	1 ]	G-AN4-60460 on; G-AN5; to G-AN6-200000; from H-AN9-72041; H-AN10; A-AN10
42	159604	FUEL, (BF2232/00)	1	from G-AN6-200001
43	BHA4586	WATER/OIL, ext. lit, 'F' (GD1501/14A)	1 ]	to G-AN4-60459;
44	BHA4587 BHA4737	WATER/OIL, ext. lit, 'C' (GD1501/15A) WATER/OIL, int. lit, 'F' (GD1301/19)	1 J 1	to H-AN9-72040 G-AN4-60460 to 65928;
45	BHA4764 BHA4900	WATER/OIL, int. lit, 'C' (GD1301/20) WATER/OIL, int. 'C-N-H' (GD1301/21)	1	H-AN9-72041 to 76708 from G-AN4-65929; G-AN5; to G-AN6-200000; from H-AN9-76709; H-AN10; A-AN10
46	159606	WATER TEMP' (BT2230/00)	1	from G-AN6-200001
50	2A5635	PIPE, oil gauge to flexible hose	1 ]	
51 53	11B2037 RFR102	NUT, connecting pipe to gauge GROMMET (pipe through bulkhead)	1	
54	CHA600	HOSE, flexible	1	G-AN4; G-AN5;
55	88G308	CLIP, hose clamping	2	H-AN9; H-AN10;
56 57	AHA6392 ACA5421	PIPE (engine adaptor to hose)  NUT (connecting pipe to adaptor)	1	A-AN10
58	CAM6431	ADAPTOR, pipe to engine block	il	
59	6K464B	WASHER, adaptor sealing	1 ]	
	BHH1281 RFR102	PIPE, oil gauge to flexible hose GROMMET (pipe through bulkhead)	1 ]	
	CHA600	HOSE, flexible	i	
	88G308	CLIP, hose clamping	2	to G-AN6-200000
	AHA6392	PIPE (engine adaptor to hose)	1	
	ACA5421 143943	NUT, connecting pipe to adaptor ADAPTOR, pipe to engine block	1	
69	27H7877	RESTRICTOR, pipe to oil gauge (if fitted)	1 ]	
70	2K4936	WASHER, leather (pipe to oil gauge)	1	
71 72	PCR207 PMZ306	P CLIP, pipe to footwell	a/r	G-AN4; G-AN5;
73	GHF306	SCREW, clip to footwell WASHER, plain	a/r a/r	to G-AN6-200000; H-AN9; H-AN10;
74	WL700101	WASHER, locking	a/r	A-AN10
75	GHF206	NUT	a/r J	
76 77	PCR809 SH604041	'P' CLIP, flexible hose to body SCREW, clip to body	1 1	
78	GHF331	WASHER, locking	1	
80	11K2846	ADAPTOR (temperature bulb to engine)	1 ]	from G-AN4-66226; G-AN5;
81	12A1768 AED172	WASHER, adaptor to cylinder head WASHER, copper, (alternative)	1	to G-AN6-200000; from H-AN9-77591; H-AN10;
		, ,	j	A-AN10
82	PCR307	CLIP (capillary to bodywork)	2/4	lower quantity to G-AN4-58853 and to H-AN9-71120
83	AHA8683	CLIP (capillary & air valve cable to body)	2	to G-AN4-58853; to H-AN9-71120
84	PMZ310	SCREW, clip to bodywork	4 ]	
85	PWZ103	WASHER, plain	4	0.444.0.445
86 87	WL700101 GHF206	WASHER, locking NUT	4 4	G-AN4; G-AN5; to G-AN6-200000;
88	11G2013	CLIP (capillary to retainer)	1	H-AN9; H-AN10; A-AN10
89	BMK385	CLIP (capillary to vacuum pipe)	1	
90	C5574A	GROMMET (capillary through bulkhead) P CLIP (temp. sender wire to thermostat)	1 J 1 l	
95 96	PCR311 GTR108	SENDER UNIT, temperature	1	from G-AN6-200001
	AJH5185	STRAP, instrument	2 ]	to G-AN4-60459;
101	A 1115107	(for external illumination)	]	to H-AN9-72040
101	AJH5187	STRAP, instrument (for internal illumination)	2	from G-AN4-60460; G-AN5; from G-AN6. H-AN9-72041 H-AN10; A-AN10
	WL700061	WASHER, locking	*a/r	G-AN4; G-AN5;
103	17H932	NUT, thumb (instrument retaining)	*a/r	to G-AN6-200000; H-AN9; H-AN10; A-AN10
		o of each for an internally lit water/oil gauge		each for an externally lit water/oil
	ge and one of each to WL700061	for either an internally or externally lit fuel ga WASHER, locking	uge. 2 ]	from G-AN6-200001
	17H1304	NUT, thumb (instrument retaining)	2	0 7.1.0 200001
	17H1642	O' RING, instrument to dash seating	2	
107	17H1068	GLASS, 2 inch diameter	2	

# 156 | Switches & Controls (Fascia & Column)



# Switches & Controls (Fascia & Column) 157

ill.	Part Number	Description	Qty.	Details
No			Req.	

# Fascia & Steering Column Switches

The most obvious change in switches occurred at the start of the 1972 model year (i.e. the introduction of the 'round wheel arch' 1275 model) when the traditional toggle switches gave way to the safer rocker type. Rocker switches were then used up to the end of Midget 1500 production.

### 'Toggle' Switch Fascias

(G	AN4; to G-AN5-1	105500; H-AN9; H-AN10; A-AN10)			
1	BCA4294	SWITCH, side/headlamps	1 ]		
2	149011A	SWITCH, panel lights	1	toggle type	
3	149011A	SWITCH, windscreen wipers	1		

Additional toggle switches of either type can be used to operate electrical accessories that may be installed. A toggle switch is held in place by a threaded chrome ring, which may be tightened using a tubular tool with two protruding drive lugs which locate in corresponding slots in the ring. A simple replica of this tool can be made from a 4" length of metal tube with an internal diameter greater than 9/16" and less than 5/8" (19/32" is ideal). The external diameter should be greater than 3/4".

With the tube held vertically in a vice, one end of the tube can be filed to produce two diametrically opposed lugs which are both long enough - and wide enough, to fit the slots in the face of the chrome ring. For the sake of a few minute's work, you will have created the right tool for the job - infinitely preferable to employing screwdrivers and pliers, which would almost inevitably result in some form of damage to the chrome ring, the switch itself or the paint finish on the fascia!

SWITCH, heater 1 see pages 159 to 163.

#### Ignition Switches & Steering Locks

Steering locks became a standard feature in December 1970 (at G-AN5-96272/H-AN10-86765). Prior to this date they were an option in selected markets only.

5 6	13H337 24G1345	SWITCH, ign/starter (less barrel) LOCK BARREL (with two keys)	1   G-AN4; to G-AN5-89514; 1   H-AN9: to H-AN10-86302
U	13H926	SWITCH, ign/starter/accessories	1   G-AN5-89515 to 96272;
		(less barrel)	H-AN10- 86303 to 86765.
	24G1345	LOCK BARREL, with two keys	1 ]
7	37H5933	STEERING LOCK	1   G-AN4; to G-AN5-96272;
8	27H6237	SWITCH, ignition & starter	1 H-AN9; to H-AN10-86765
9	27H9394	SHEAR BOLT	1 (optional fitment)
10	BMK2259	STEERING LOCK	1   G-AN5-96273 to 105500;
11	37H5934	SWITCH, ignition & starter	1 from H-AN10-86766; A-AN10
12	37H5935	SHEAR BOLT	1 (standard fitment)
	BMK2259X	STEERING LOCK (replacement type)	1 alternative

# Steering Column Switches

15	BHA4627	SWITCH (standard fit), indicator	1	1	to G-AN4-66225;
	BHA4628*	SWITCH (optional fitment) (indicator & headlamp flash)	1		to H-AN9-77590
	BHA4628	SWITCH (indicator & headlamp flash)	1		from G-AN4-66226; from H-AN9-77591

\*Note: On early cars, the headlamp flash will only operate if wired in correctly. There must also be sufficient longitudinal movement allowed for the switch within the column cowl (see page 129). BHA4948 **SWITCH** 

16	BHA4948	SWITCH	1	1	to G-AN5-89514;
		(indicator headlamp dip, headlamp flash & hor	m)	]	to H-AN10-86302
17	37H8050	SWITCH,	1	1	G-AN5-89515 to 105500;
		(indicator, headlamp dip & headlamp flash)			from H-AN10-86303; A-A
18	37H8051	CLAMP, switch, (with contact)	1	]	
19	AHH7522	CANCEL STUD (for indicators)	1	1	to G-AN4-61165;
20	BHA4540	WASHER, locking, crinkle type	1		to G-AN4-61165; to H-AN9-72528.
21	AHA8752	CANCEL CLIP (for indicators)	1	1	from G-AN4-61166;
					from G-AN4-61166; from H-AN9-72529
	BHH1301	CANCEL CLIP (for indicators)	1		
		,			to G-AN5-105500; H-AN10; A-AN10
					**

# Dip Switch

22	DIP SWITCH, headlamps	1	see page 143

# Horn Pushes

25	BHA4442	HORN PUSH ('MG')	1	
26	BHA4441	HORN PUSH ('Austin Healey')	1	
27	HMP240011	CUP, horn push retaining	1	G-AN4; H-AN9
28	BHA4443	SLIP RING & ROTOR	1	
29	27H3387	ROTOR, with cable	1	
30	27H5401	SLIP RING	1.	
31	BHA5043	HORN PUSH, Black 'MG' logo	1	
32	BHA5053	HORN PUSH, no logo (for Sprite)	1	G-AN5-89515 to 105500;
33	BHA5042	SLIP RING	1	from H-AN10-86303; A-AN10
34	GHF422	SCREW (slip ring to steering wheel boss)	2	
35	BHA5041	CONTACT BRUSH ('horn pencil')	1.	

]	to H-AN10-86302
1	G-AN5-89515 to 105500;
	from H-AN10-86303; A-AN10
1	to G-AN4-61165;
]	to H-AN9-72528.
1	from G-AN4-61166;
]	from H-AN9-72529
1	to G-AN5-105500;
- 1	11 ANIAO A ANIAO

# Information for Warning Lights & Instrument Bulbs

The power rating of the bulbs used to illuminate warning lights and instruments should not be increased from the original specification: the extra heat from an uprated bulb may distort plastic components nearby. Please see 'Harnesses & Fittings' on pages 152/153 for suitable bulbs.

ill. No	Part Number	Description	Qty Rec		Details
Cigar Lighter					
40	ZKC1152	CIGAR LIGHTER	1	1	optional
41	AJM1253	POP-OUT UNIT	1	1	fitment
42	GLB643	BULB, illuminating	1	]	
10/-					
<b>wa</b> 45	rning Lights AHA7742	DDACKET (indicator bulb holder)	1		
46	WL700101	BRACKET (indicator bulb holder) WASHER, locking	2		
47	GHF206	NUT	2		
48	AHH6332	SHIELD	2		
49	AHH6334	WINDOW (indicator warning light)	2		
50	AHH6333	TUBE (indicator warning light)	2		
51	BCA4780A	BODY, oil filter warning light	1		to approx. 1968
'Ro	ncker' Switch I	Fascias (G-AN5-105501 on; G-AN6)			
55	BHA5111	SWITCH, side/headlamps	1		
56	BHA5112	SWITCH, panel lights	1		
57	BHA5109	SWITCH, single speed wipers	1	1	from G-AN5-105501;
		, , ,			to G-AN6-212000.
	BHA5110	SWITCH, two speed wipers	1		from G-AN6-212001
58	BHA5267	SWITCH, hazard warning lights	1		from G-AN5-138801; G-AN6.
59	ACU1983	SWITCH, rear fog lamp	1		G-AN6 (as fitted)
60		SWITCH, heater	1		see pages 158 to 163
Ste	ering Locks				
65	BMK2259	STEERING LOCK	1	1	
66	37H5934	SWITCH, ignition & starter	1	ı	alternative to BHA5215
67	51K4001	SHEAR BOLT	1		
	BHA5215	STEERING LOCK	1	1	
	37H7708	SWITCH, ignition & starter	1		alternative to BMK2259
	51K4001	SHEAR BOLT	1	]	
	BMK2259X	STEERING LOCK (replacement type)	1		alternative
		•			
	ering Column			,	
70	37H8050	SWITCH (indicator headlamp dip & headlamp flash)	1	ł	from G-AN5-105501;
71	37H8051	CLAMP, switch, (with contact)	1	ł	to G-AN6-200000
72	ADU1021	SWITCH	1	i	from G-AN6-200001
		(indicator headlamp dip-flash & horn)		]	
73	BHH1301	CANCEL CLIP, for indicators	1		
Hoi	rn Pushes				
75	BHA5135	HORN PUSH, red ('MG' logo)	1	1	from G-AN5-105501;
			-		to G-AN6-200000
	AAU1161	HORN PUSH, gold ('MG' logo)	1	1	used on selected
				]	1975 G-AN6 cars
76	BHA5042	SLIP RING	1	1	from G-AN5-105501
77 78	GHF422 BHA5041	SCREW (slip ring to wheel boss) CONTACT BRUSH ('horn pencil')	2		to G-AN6-200000
10	וויייייייייייייייייייייייייייייייייייי	CONTINUE DISCOLL ( HOLLI PERIOR )	1	1	
Cig	ar Lighter				
80	ZKC1152	CIGAR LIGHTER	1	]	from G-AN5-105501 to
81	AJM1253	POP-OUT UNIT	1		G-AN6-212000 (optional)
82	GLB643	BULB, illuminating	1		from G-AN6-212001
Wa	rning Lights			1	(standard)
85	AHA7742	BRACKET (indicator bulb holder)	1	1	
86	WL700101	WASHER, locking	2		
87	GHF206	NUT	2		from G-AN5-105501
88	AHH6332	SHIELD	2		
89	AHH6334	WINDOW, indicator warning	2		
90	AHH6333	TUBE, indicator warning	2	]	
91	BHA5124	LENS & BODY, indicator (chrome rim)	1		to G-AN6-200000
92	AAU4824	LENS & BODY, indicator (black rim)	1		from G-AN6-200001
93 94	BHA5125 UKC5812	WASHER, retaining LENS & BODY, brake warning	2		G-AN6 from G-AN6-212001
34	UNUUUIZ	LLITO & DODT, DIANG WAITING	'		110111 U-ANU-Z 12001
		Vorning Lights O Instrument Dulh			