

hotter than the outer ones and often crack around the exhaust valve guides, better introduce N63R sparking plugs (inner cylinders) and N3 outer cylinders -- for short events. For long distance N58R inner and N63R outer. N58R for 11:1 compression. N63R for 10:1 compression. N-3 for road work which I used. For the "ultimate" warm the engine to operating temp with N9Y's then install the N3's!

At any rate camshaft timing with overlap and efficiency will not be bad with C-AHT100 so perhaps you could opt for a Derrington separate port cross flow alloy head. The good people at Derrington have cams, headers, Webers or fuel injection for you and larger valves. Compressions up to 12:1 although 10or10.5:1 should give you plenty of power and in the upper and middle range you should realize a big difference from this better breathing head.

Walter mentions rocker spacers but not the end shaft support brackets. Steel spacers are C-AEH764 and end shaft brackets are C-AEH 762 and 763 - with greater timing accuracy and less stress on the rest of the valve train. 0.003 to .005" clearance is necessary with these steel spacers. C-AHH766 solid adjuster screws. If this is too expensive the MKII 1800 Saloons have heads with better basic combustion chamber shape 40cc nominal volume and inlet valves 1.628" 12H2594 or 12H2891.

Hepolite pistons do not come highly recommended by factory tuners for anything other than occasional road work. A camshaft of around 270° duration seems to be ideal for road work.

A flywheel lighter than std -- say approx 10-12 lbs would also be useful. 4.55:1 final drive ratio with .802 OD; Walter could have 3.649:1 in OD-- not bad with a well tuned engine on the Autobahn.

Self Service (Continued from page 171)

dealership used Champion N12Y.

Finally, one would think that the owner's manual would be inclusive. Well, I guess it isn't, for nothing has been said about filling front and rear shocks or steering. HE....LP!

In summary, I'm glad that I did it and I'll continue to try and do more each time, but I'd sure wish you technical folk would really go back -- all the way back -- to basics, for us neophytes.

(Ed Note: "Uncle, Uncle!" But it's not as though I've never been there. When I purchased my first MG in 1968 I was determined to do all of the regular maintenance. Dutifully following the driver's handbook, I was instructed to wash out the air cleaner in paraffin. Now, I knew I wasn't supposed to wash out the filter in wax, but whatever were they talking about? Kerosene! And try to get American and Metric sockets to fit on a BSF bolt -- I didn't know British sizes were different, and neither did anyone I talked to -- for a long time. Before long, however, I was learning quickly. In the Army, using the Moss Motors catalogue as my main source of reading material, I thought I'd rebuild my distributor -- I wrote to Moss asking if the dist cam they sold was the symmetric, assymetric, or high lift type. In the note back, they said, "If you can spell them, you're doing better than we are!" That was twelve years ago!

Oh, by the way, I used to think that changing the diff oil was a waste of money. But Jim Kurczewski of the Chicago Chapter put it into perspective -- it's \$1 worth of gear oil vs a \$400 differential. I now encourage a yearly change of gearbox and diff oils.

by Caroline Robinson 78-415

The following pages represent a lot of research from the factory sales literature, factory parts information, some field testing -- and a lot of help from AMGBA members. A special thanks to:

Brian May, Matthew Graham, Tom Boscarino, Bruce Magers, Greg Kocher, Steve Glochowsky, Jim Purwin, Lindsay Porter, David Haywood, Tim Beaton, Gloria Charles

The listing is organized by colour, and offers the various aftermarket codes -- Ditzler, R&M, and Dupont. In a number of instances, the aftermarket paint suppliers have found what they consider to be two colours within a "one-colour listing" and those differentiations are made in the notes by the paint code number.

We are continuing to collect paint code information and will be at the convention to examine all the cars in concours.

If you have anything you can add to this list -- a photocopy of an older paint code book -- a factory piece of information that doesn't match exactly with this chart -- PLEASE let us know!

Our next step is to list all the interior combinations -- and that is quite a step! Again, if you can help us out with factory literature, photocopies, please do so. If you haven't already -- please send us the information we've asked for in the "Introduction" -- our questionnaire -- as our interest in compiling factory information doesn't stop with the paint codes!

THE DRIVER'S HANDBOOK LIBRARY

by John H Twist 78-415

We've expanded our Driver's Handbook Library to include the MG Midget. If you have a driver's handbook whose Nuffield Numbers (found on the back page) are not listed here, Please help us out and forward them to the technical chairman! We're especially interested in the Continental handbooks.

From the outset, this has been an AMGBA project -- and we want to profusely thank all the members who have helped us so far:

Larry Standifer, Walter Dickmann, Ken James, John Dorbandt, Ken Kipp, Mason Clark, Harold Scripture, Douglas Dean, Scott Shiple, Dave Mack, Bob Schneider, Greg Kocher, Vincent Campbell, Thomas Edwards, Verl Wilkins, Thomas Pugh, Andrew Jacobsen, Charlotte Rivers, and JRT.

When you have an opportunity -- PLEASE inspect the driver's handbook in your MG -- Do we have it listed??? Look for the "Nuffield Numbers" on the back pages -- do we have them printed correctly? You can help make this project successful!! Thanks

VEHICLE NUMBERS are our next large project. PLEASE HELP US MAKE IT A SUCCESS and send us the numbers from your MG as we've asked for in the Introduction. Thank You - John Twist

M G C O L O U R C O D E S A N D A P P L I C A T I O N S

<u>COLOUR</u>	<u>DESCRIPTION</u>	<u>FACTORY CODE</u>	<u>AFTERMARKET CODES</u>	<u>APPLICATION</u>	<u>Years</u>
Black		BK1 BLVC122	DITZ 9000 DUP 99	Midget MGL MGL 00 MGC	1961-79 1963-80 1963-67 1967-69
Old English White	Creamy White	WT3	RM BM149 (1) RM BM150 (2) DITZ 8177 DUP 8207	Midget MGB MGL100 MGC	1961-67 1963-67 1963-67 1967
Snowberry White	Gray White	WT4	RM BM151	Midget MGB	1968-69 1968-69
Glacier White	Blue White	BLVC 59	RM BM155 DITZ 8845 (1) DITZ 90074 (10) DUP 8579	Midget MGE	1970-77 1970-77
Leyland White	Refrigerator White	BLVC 243	DITZ 90106 DUP H7896	Midget MGB	1978-79 1978-80
Farina Gray	Light Gray	GR11	RM BM016	Midget	1961-62
Grampian Gray	Dark Gray	GR12	RM BM018	MGB/GT MGC/GT	1967-69 1967-69
Chelsea Gray	Light Gray	GR15	RM BM008 DITZ 31733 DUP 8198	MGB-Roadster only	1963-65
Dove Gray	Medium Gray	GR26	RM BM013 DITZ 32085	Midget	1962-65
Dark Silver		GR36		MGL100	
Dover Gray	Medium Gray	GR34	RM BM014	MGL100	
Mirage	Mauve	BLVC 11	RM BM176 DITZ 33135 DUP 43277	Midget MGB	1974 1974
Sandy Beige	Medium Gray Brown	BG 15	RM BM146 DITZ 22213	MGB/GT MGL100 MGC/GT	1965-68 1963-67 1967-68
Golden Beige	Medium Brown	BG 19	RM BM140	MGB/GT MGC	1967-68 1967-68
Bedouin	Cream Beige	BLVC 4	RM BM163	Midget MGB	1971 1971
Antelope	Gray Beige	BLVC 7	RM 156 DITZ 32890 DUP 8578	MGR	1970
Russet Brown	Dark Brown	BLVC 205	DITZ 24378 DUP 44848	Midget MGB	1978-79 1978-80
Pale Primrose	Light Yellow	YL 12	RM BM131 DITZ 81499	Midget MGB MGC	1965-70 1965-70 1967-69
Bronze Yellow	Dark Yellow	BLVC 15	RM BM157 DITZ 81827 DUP 8581	Midget MGB	1972-75 1972-75
Harvest Gold	Muddy Yellow	BLVC 19	RM BM170 DITZ 82018 DUP 30013	Midget MGB	1972-75 1972-75
Sand Glow	Caramel	BLVC 63	DITZ 24300 DUP 44565	Midget MGB	1976-77 1976-77
Bracken	Muddy Orange	BLVC 93	RM BM187 DITZ 60760 DUP 43275	Midget MGB	1974-76 1974-76
Chartreuse	Pale Yellow	BLVC 167	DITZ 45189 DUP 44629	Midget MGB	1976-77 1976-77
Inca Yellow	Sun Yellow	BLVC 207	DITZ 83209 DUP 44880	Midget MGB	1978-79 1978-79
Snap Dragon Yellow	Sun Yellow	BLVC 235	DITZ 82462 DUP 45475	MGB	1980

FIG COLOUR CODES AND APPLICATIONS

<u>Colour</u>	<u>Description</u>	<u>FACTORY CODE</u>	<u>AFTERMARKET CODES</u>	<u>APPLICATION</u>	<u>YEARS</u>
Maroon Red	Maroon	RD 5 BLVC 99	RM BM112R DITZ 71064 (3) DITZ 72261 (4) DUP 8819	Midget MGB	1973-77 1973-77
Tartan Red	Bright Red	RD 9	RM BM124R DITZ 71062 (5) DITZ 71416 (6) DUP 8204	Midget MGB MGL100 MGC	1961-69 1963-69 1963-67 1967-69
Flame Red	Orange	BLVC 16	RM BM162 DITZ 60637 DUP 30007	Midget MGB	1971-75 1971-75
Black Purple	Dark Purple	BLVC 23	RM BM168M DITZ 14417 DUP 43274	Midget MGB	1973 1973
Flame Red	Red	BLVC 61	RM BM160R DITZ 71861 (7) DITZ 72066 (8) DUP 8571	Midget MGB	1970-72 1970-72
Aconite	Dark Purple	BLVC 95	RM BM181D DITZ 14728 DUP 43274	Midget MGB	1974-75 1974-75
Vermillion Red	Orange Red	BLVC 118	DITZ 60932 DUP 45471	Midget MGB	1978-79 1978-80
Flamenco Red	Red	BLVC 133	DITZ 72144 DUP 43661	Midget MGB	1975-77 1975-77
Carmin Red	Maroon Red	BLVC 209	DITZ 72065 DUP 43019	Midget MGB	1978-79 1978-80
Connaught Green	Dark Green	GN 18	RM BM080 DITZ 32252	MGL100	1963-67
British Racing Green	Medium Dark Green	GN 25	RM BM079 DITZ 43342	Midget MGB	1964-70 1964-70
British Racing Green	Medium Dark Yellow Green	GN 29	RM BM078 DUP 8194	Midget MGB MGC	1964-70 1964-70 1967-69
Almond Green	Medium Dark Green	GN 37	RM BM076	Midget	1961-62
Green Mallard	Dark Green	BLVC 22	RM BM169D DITZ 44638 DUP 30014	Midget MGB	1972-73 1972-73
Wild Moss	Dark Olive	BLVC 24	RM BM165 DITZ 44447 DUP 30008		
New Racing Green	Very Dark Green	BLVC 25	RM 167 DITZ 44446 DUP 30012	Midget MGB	1971 1971
Aqua	Light Turquoise	BLVC 60	RM BM159 DITZ 14075 DUP 8821	Midget MGB	1972 1972
Lime Flower	Dark Lime Green	BLVC 20	RM BM166 DITZ 44448 DUP 30010	Midget MGB	1973 1973
Citron	Chartreuse	BLVC 73	RM BM177 DITZ 44947 DUP 43276	Midget MGB	1974-76 1974-76

MG COLOUR CODES AND APPLICATIONS

<u>COLOUR</u>	<u>DESCRIPTION</u>	<u>FACTORY CODE</u>	<u>AFTERMARKET CODE</u>	<u>APPLICATION</u>	<u>YEARS</u>
Tundra	Olive Drab	BLVC 94	RM BM 178 DITZ 44978 DUP 43278	Midget MGB	1974-76 1974-76
Brooklands Green	Medium Green	BLVC 169	DITZ 45190 DUP 44630	Midget MGB	1976-79 1976-80
Mineral Blue	Dark Blue	BU 9	RM BM 060 DITZ 12115 DUP 8182	Midget MGB MGC	1965-69 1965-69 1967-69
Basilica Blue	Dark Blue	BU 11	RM BMO37	Midget	1965-69
Iris Blue	Medium Light Blue	BU 12	RM BMO54 DITZ 12235 DUP 8184	MGB-Roadster only	1963-65
Clipper Blue	Medium Blue	BU 14	RM BMO42 DITZ 12297	Midget	1961
Smoke Gray	Medium Blue Gray	BU 15	RM BMO28 DITZ 32040	MGL100	1963-67
Ice Blue	Medium Gray Blue	BU 18	RM BMO52 DITZ 12631	Midget	1962-64
Blue Royale	Dark Blue	BU 38	RM BMO39 DITZ 12635	Midget MGB	1970 1970
Bermuda Blue	Light Gray Blue	BU 40	RM BM158 DITZ 12630 DUP 8582	MGB	1970
Riviera Blue	Medium Blue	BU 44	RM BMO65 DITZ 13123	Midget MGB	1965- 1965-68
Riviera Silver Blue		BU 47		MGC	1968
Midnight Blue	Very Dark Blue	BLVC 12	RM BM171D DITZ 14245 DUP 30011	Midget MGB	1972-73 1972-73
Teal Blue	Medium Dark Blue	BLVC 18	RM BM164 DITZ 14244 DUP 30006	Midget MGB	1971-74 1971-74
Tahiti Blue	Bright Blue	BLVC 65	DITZ 14866 (11) DITZ 15096 (12) DUP 43907	Midget MGB	1975-77 1975-77
Pageant Blue	Brighter Blue	BLVC 224	DITZ 15231 DUP 45473AH	Midget MGB	1978-79 1978-80

NOTES

- (1) 1963 only
- (2) 1964-67
- (3) Through 1976
- (4) 1977 only
- (5) 1961-63
- (6) 1964-69
- (7) 1970-72
- (8) 1973 only
- (9) 1970-76
- (10) 1977 only
- (11) 1975-76
- (12) 1977 only

OTHER COLOURS OF INTEREST

Engine It appears at this time that all engines prefixed with 18G... were painted the MG engine red. All those engines prefixed with 18V... are painted black. R&M provides a wonderful match to the engine red, E 3123-M which is a deep maroon.

Cooling Fan and Pulley The metal three bladed fan and pulley are yellow. Duplicolor offers a good match with T-211.

Wheels - disc and wire Ditzler offers a "hammered silver" finish in their DAR 2593 Delstar, an acrylic enamel.

Trico Windscreen Solvent Bottle Holder This is a light blue -- have any AMGBA members matched this colour with success?

PART NUMBER		MUFFLER NUMBERS			LANGUAGE	DESCRIPTION
AKD 3258	29/29	(41184)	6/62	11,191	English	First Edition
AKD 3258 A						
AKD 3258 B	29/29	(50083)	5/63	17,150	English	
AKD 3666						
AKD 3666 A						
AKD 3666 L	29/126	(176F)	10/66	1,945	French	MGB Manuel de Conducteur
AKD 3700					German	MGB & MGB/GT GHN3-GHD3
AKD 3900		(52418)	8/63	19,600	English	
AKD 3900 A	29/29	(55592)	2/64	19,500	English	
AKD 3900 B	29/29	(62315)	12/64	25,550	English	
AKD 3900 C	29/29	(67031)	7/65	15,250	English	
AKD 3900 C/1	29/29	(68567)	10/65	6,500	English	GHD Supplement for AKD3900C
AKD 3900 D	29/29	(72543)	5/66	14,512	English	
AKD 3900 E	29/29	(2050)	10/66	21m	English	
AKD 3900 F						
AKD 3900 G						
AKD 3900 H	29/29	(8856)	9/67	5,014	English	
AKD 3900 J	29/29	(81542)	3/71	2,003	English	MGB (English)
AKD 4034						Special Tuning
AKD 4034 A						
AKD 4034/1	25/9	(53610)	10/63	5m	English	
AKD 4034 B	25/9	(57580)	3/64	2,500	English	Special Tuning for the 1800cc MGB
AKD 4034 C						
AKD 4034 D						
AKD 4034 E						
AKD 4034 F						
AKD 4034 G						
AKD 4034 H	25/9	(81476)	3/71	3,000	English	MGB Tourer & GT Special Tuning
AKD 4034 J						
AKD 4034 K	25/9	(87961)	10/74	1,000	English	
AKD 4034 L	25/9	(90275)	12/75	9,000	English	MGB Tourer & GT Special Tuning
AKD 4109					Danish	GHN/GHD 3
AKD 4129					Swedish	MGB & GT (GHN3, GHD3)
AKD 4163					English	
AKD 4958					English	
AKD 7059	29/175	(8621)	11/67	6,979	English	MGB Tourer(GHN4) and GT (GHD4)
AKD 7059 A	29/175	(11432)	2/68	9,014	English	
AKD 7059 B	29/175	(15392)	6/68	10,515	English	MGB (GHN4 & GHD4) USA
AKD 7059 C	29/175	(19073)	11/68	11,105	English	GHN4-GHD4
AKD 7059 D	29/175	(23272)	6/69	11,715	English	GHN4-GHD4
AKD 7059 E						
AKD 7059 7th	29/175	(80312)	5/70	13,500	English	MGB Tourer(GHN5&GHN4) and GT(GHD5&GHD4)
AKD 7090	5/29	(11257)			English	Errata use w/AKD4958 and AKD 7059
AKD 7101					German	GHN/GHD5 Austria/Switzerland only
AKD 7110					Swedish	MGB & GT (GHN4, GHD4)
AKD 7162	5/157M	(14604)			English	Addendum to AKD 7059B
AKD 7198	29/29	(16462)	9/68	21,355	English	Supplement to AKD 4991A & AKD 7059B
AKD 7278					Swedish	MGB> (GHN4,GHD4) with Safety Regs
AKD 7417					Danish	MGB & GT GHN5-GHD5
AKD 7418					Dutch	MGB & GT (GHN5-GHD5)
AKD 7419					French	MGB & GT (GHN5-GHD5)
AKD 7421					Italian	MGB & GT (GHN5-GHD5)
AKD 7571					German	
AKD 7571 2nd	29/175	(82409)	12/71	250	German	MGB Tourer(GHN5undGHN4) und GT(GHD5undGHD4)
AKD 7571 3rd					German	
AKD 7571 4th					German	
AKD 7571 5th	29/175		2/76	550	German	MGB Tourer(GHN5UD) und GT(GHD5UD)
AKD 7571/1					German	
AKD 7571/2	29/126			M	German	Nachtrag zur verwendung mit MGB Handbuch
AKD 7598					English	
AKD 7598 2nd					English	
AKD 7598 3rd	29/29	(82861)	3/72	11,000	English	MGB Tourer(GHN5-GHN4) and GT (GHD5-GHD4)
AKD 7598 4th					English	
AKD 7598 5th					English	
AKD 7598 6th					English	
AKD 7598 7th					English	
AKD 7598 8th		(90143)	12/75	1,915	English	MGB Tourer(GHN5-GHN4) and GT(GHD5-GHD4)
AKD 7600					English	
AKD 7633					Dutch	GHN5-GHD5 1971
AKD 7636					German	1971/2 Austria/Switzerland only
AKD 7637					German	
AKD 7638					Spanish	GHN5-GHD5
AKD 7638/1					Spanish	Use w/AKD 7638 for 1972
AKD 7881	29/175				English	(English) Tourer(GHN5/GHN4)>(GHD5/GHD4)

THE MGB DRIVER'S HANDBOOKS

<u>PART NUMBER</u>	<u>NUFFIELD NUMBERS</u>				<u>LANGUAGE</u>	<u>DESCRIPTION</u>
AKD 7885					English	Use with AKD 7598 for 1972
AKD 7923					Dutch	Use with AKD 7633 for 1972
AKD 7938	29/175	(82340)	11/71	22,000	English	(English) Tourer GHN5UC & GT GHD5UC
AKD 7938/1					English	For use with MGB Handbook AKD 7938
AKD 8155					English	
AKD 8155	29/29	(84074)	12/72	12,500	English	(USA) Tourer GHN5UD & GT GHD5UD
AKD 8160					English	
AKD 8160 2nd	29/29	(84074)	12/72	12,500	English	(Canada) Tourer GHN5UD & GT GHD5UD
AKD 8423 1st	29/107	(84734)	5/73	1,000	English	(English) V8 Model
AKD 8609	23/56	(51673)	9/73	6,000	English	Consumer information GHD 5UE
AKD 8638	22/29	(87236)	7/74	8,000	English	
AKD 8638 1st	29/29	(85567)	9/73	14,000	English	
AKD 8639	29/29	(85568)	9/73	1,000	English	(Canada)
AKM 3286	29/29	(88313)	2/75	13,000	English	USA) Tourer GHN5UF
AKM 3407					English	
AKM 3407 2nd	29/29	(90428)	1/76	5,500	English	(USA) Convertible GHN5UG
AKM 3408	29/29	(89356)	9/75	1,300	English	(Canada) Tourer GHN5UG
AKM 3521					English	
AKM 3521 2nd	29/29	(91646)	6/76	14,000	English	
AKM 3521 3rd	29/29	(93823)	3/77	14,017	English	(USA) Convertible GHN5UH
AKM 3521/1					English	Addendum for use with AKM 3521
AKM 3661	29/29	(90857)	5/76	5,000	English	(English) Tourer GHN5 & GT GHD5
AKM 4052						
AKM 4052 2nd	29/29	(13187)	1/78	7,017	English	(USA) Convertible GHN5UJ
AKM 4053					English	
AKM 4081					English	(Canada) Convertible 1978
AKM 4322					French	(Canada) Convertible 1979
AKM 4383	29/29	(14895)	3/78	11,017	English	(USA) Convertible GHN5UL-1979
AKM 4383 2nd					English	(USA) Convertible GHN5UL-1979
AKM 4384	23/56	(14896)	3/78	11,010	English	Consumer information use with AKM 4383
AKM 4383 2nd	23/56	(17593)	8/78	10,005	English	Consumer information
AKM 4391	29/29	(14925)	3/78	517	English	(Canada) Convertible GHN5UL-1979
AKM 8098					English	(USA) Hardbound book - 1980

THE MGC DRIVER'S HANDBOOKS

AKD 4887					English	
AKD 4887 A	29/34	(12050)	2/68	3,514	English	
AKD 4887 B	29/34	(19750)	1/69	1,665	English	(English)
AKD 4888	29/180	(12489)	8/68	314	Danish	
AKD 4894					Swedish	
AKD 4958	29/34	(8771)	12/67	4,230	English	

THE MG MIDGET DRIVER'S HANDBOOKS

AKD 3106					Swedish	
AKD 3235					French	
AKD 3898					English	
AKD 3898 A					English	
AKD 3898 B					English	
AKD 3898 C					English	
AKD 3898 D					English	
AKD 3898 E					English	
AKD 3898 F					English	Midget MKII (w/supplement for MK I)
AKD 5097					English	Special tuning for 1098cc
AKD 5098					English	Special tuning for 1275cc
AKD 7485					Spanish	Midget MKIII GAN5
AKD 7485/2					Spanish	Supplement to AKD 7485 for 1971/2 models
AKD 7489					French	Midget MK III
AKD 7515					German	Midget MK III GAN5
AKD 7596					English	
AKD 7596 2nd					English	
AKD 7596 3rd	29/27	(81791)	12/71	2,500	English	(English) Midget Mark III GAN5
AKD 7597	29/171	(80469)	6/70	6,568	English	(English) Midget Mark III
AKD 7644					Dutch	Midget Mark III GAN5
AKD 7883	29/171	(81784)	7/71	7,500	English	(English) Midget MK III
AKD 7897					English	MK III Supplement for 1972 use w/AKD7596
AKD 7922					Dutch	Supplement for 1972 use w/AKD 7644
AKD 7937	29/27	(82341)	10/71	13m	English	(English) Mark III GAN 5UC
AKD 8159					English	
AKD 8159 2nd	29/27	(84092)	11/72	3,500	English	(USA) Mark III GAN 5UD

THE MG MIDGET DRIVER'S HANDBOOKS

PART NUMBER	NUFFIELD NUMBER				LANGUAGE	DESCRIPTION
AKD 8161					English	
AKD 8161 2nd	29/27	(84092)	11/72	3,500	English	(Canada) Mark III GAN 5UD
AKD 8640					English	(USA) GAN5 1974
AKD 8641					English	(Canada) GAN5 1974
AKM 3229					English	MK III GAN6 1974-1979
AKM 3260					English	(USA) GAN6 1975
AKM 3261					English	(Canada) GAN6 1975
AKM 3436					English	
AKM 3436 2nd	29/27	(89940)	11/75	7,500	English	(USA) GAN6UG - 1976
AKM 3519					English	(USA) GAN6 1977
AKM 4058					English	(USA) GAN6 1978
AKM 4059					English	(Canada) GAN6 1978
AKM 4118/1					French	(Canada) Supplement 1979
AKM 4386					English	(USA) GAN6 1979
AKM 4390					English	(Canada) GAN6 1979

SELF SERVICE

by Bill Scholz 80-1511
Bloomington MN

The socket wrench ricocheted off the lip of the oil drain pan before bouncing on the garage floor. After groping blindly, I located it just behind my left shoulder. "How in the hell did I get myself in this position, I asked as I laid flat on my back, staring up at the gear-box only inches from my eyes, sweat running down my face. "It seemed like such a good idea at the time," my mind echoed as I once again located the "topping up plug."

Four months earlier I was rereading the Fall 1980 AMGBA Quarterly. John H Twist 78-415 had just become the Technical Chairman and was taking the opportunity of introducing himself and recanting his philosophies regarding service work. "I encourage everyone to do their own work," John said in his opening paragraph.

"Hmmm," I thought, "Why not? I'll just do the required maintenance. Surely that kind of project can't get me in over my head."

Now it is important to understand that up to that point, working on my MGB was limited to putting air into the tires and pumping my own gas. This isn't to suggest that I'm a klutz -- on the contrary -- I'm fairly handy around the wood shop. It's just that I've never been exposed to automobile mechanics before.

Although John recommended to work with a friend, I really didn't have anyone close by. There isn't any local MGB Chapter in town, so I took John's other advice, "Be certain you have a good manual and the proper tools!"

Well, I bought a copy of Robert Bentley's Workshop Manual, read the maintenance chapter over a couple of times, made a list of the items needed and off I went.

Problem Number One: MG DEALERSHIPS HAVE THEIR OWN INTERPRETATION OF THE ITEMS TO BE SERVICED.

The statement above was concluded after discussions with the local parts man. I went there to get some filters, etc. "I'll also need an absorption cannister," I said to the guy.

"I don't think I've got any of those," he replied.

"How long to get one," I asked?

"Don't rightly know since I don't think we've ever ordered one. Let me see now," he said as he flipped through his inventory report.

"Well, what do you know, we've ordered one about 14 months ago!"

"Fourteen months ago!" I said. Surely you've done more than one "D" service in 14 months time?"

"Hell, we do a lot of them - but we don't replace the absorption cannisters," the parts man replied.

"Well, I thought it was supposed to be replaced," I stated, "my owner's manual says so."

"We don't go by the book," said the parts man.

Thus, the roots of my first two great lessons:

Always asks the service manager what's included or not included in the service work, if you're having your work done by the local MG dealer.

By doing the prescribed service work yourself, you'll know exactly what's done.

Well, with that behind me, I was off and running.

Problem Number Two: WORKSHOP MANUALS OVER-SIMPLIFY THE EASE OF MAINTENANCE FOR THE NOVICE.

Location of the item to be serviced is a problem all of its own. For example, the seven steps required to renew the brake servo air filter are very straight forward -- but "they" didn't say where it was located. Same for the damper for the rack and pinion.

Not giving enough information is equally a problem. In checking valve clearance, the manual stated that No 1 valve should be checked with valve No 8 fully opened; No 3 valve checked with No 6 fully opened; etc. The only difficulty is that how does one open and close valves?

And with the emission control systems, carburettor and ignition timing -- forget it.

Problem Number Three: INFORMATION ON MAINTENANCE SUPPLIED BY VARIOUS MANUALS AND JOURNALS IS INCONSISTENT.

The owners manual stated not to drain the rear axle when the "After-Sales Service" is carried out. Bentley's stated that the oil should be changed. John Twist has been quoted as saying, "Don't replace the rear axle oil." However, in the "MG Magazine" No 7, John states, "Drain the engine gearbox, and differential." Even at the MG dealership -- driver's manual states spark plugs should be Champion N9Y, the

(Continued on page 165)

Overpowering the Thermoswitched Electric Fan System

by Glenn Bortz 78-0619
Alexandria Virginia

For those of you who do not want to have an overheated MGB because of a twenty dollars or more switch not opening up, here is a price-less modification I made to my 1979 MGB.

After going through two switches in fourteen months and forty dollars later, I realized what the empty holes in the dash were for.

I purchased a used 1978 MGB fan switch from a reputable, well advertised parts supplier for ten dollars. I picked up a roll of heavy duty insulated wire, an in-line fuseholder, a packed of twenty amp fuses and a bag of crimp-on connectors.

The idea came to me from my official MGB owner's handbook. There is a test of the electric fan circuit by pulling the plug from the switch in the radiator and shorting through the connectors of the loom. If the fans come on, the switch is faulty. If the switch is like any other Lucas or Smith's part, it might last you two years.

Now for the wiring of the switch.

I spliced into the two wires coming off the thermoswitch connector. One wire has an in-line fuseholder with a twenty amp fuse. I ran the two wires back through the firewall (after drilling two small holes and fitting with rubber grommets), under the dash, and to the switch connectors. To have the light in the switch work, I spliced into the other fan switch light wires.

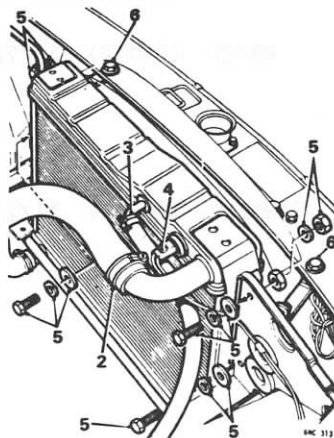
The switch is now easily accessible at the dash which puts emergency control of the cooling fans at your fingertips.

A few words of warning: I forgot and left the switch on and came out the next morning to a dead battery. Also, a shop that was doing some work to the car thought it was the heater switch and left it on and told me after removing wires from my fusebox that my fans wouldn't cut off (they are no longer in business).

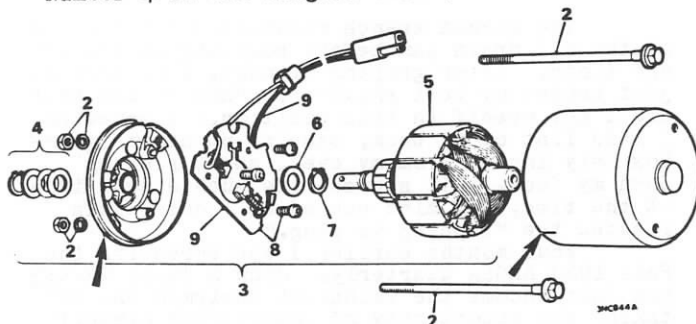
I would also like to add a large tip concerning the Lucas fan motor itself. There's not much you can do about the bearings locking up on the motor, but if your brushes wear out you can use Lucas 5471528 Brush Set to rebuild the motor. It's the same brush set that is used in the wiper motor. It's the difference between twelve dollars and about an hour of your time and fifty dollars and a new motor you might not need.

(Editor's Note: If the electric cooling fans run after the car is shut off, change the wiring at the fusebox so that they run ONLY when the MGB is running. If they continue to run when the car is shut off, they'll drain the battery considerably (which eventually strains the alternator to the point of failure!), and as Glenn mentioned, the fans have a life that's only so long -- use them wisely! The wiring change involves locating the WHITE/BROWN wire on the right side of the bottom fuse, and connecting it instead to the WHITE/BROWN wires on the third fuse.

Also, if one fan begins to make a lot of noise, or becomes stiff, disconnect it -- the MGB will cool satisfactorily with just one fan, except in the hottest weather.



The URP switch connection is made at Number 4 in the diagram above.



When the cooling fan is disassembled for rebuilding or lubrication -- ENSURE that the case and front plate are reassembled with the correct alignment. Reassembling the motor 180° off (which is easy to do) allows the fan motor to run backwards.

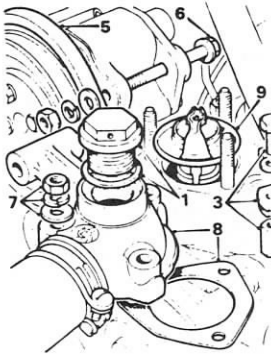
CHANGING THE THERMOSTAT -- 1977-1980 MGB

The thermostat needs to be changed only when it fails -- but after three years, it is good preventative service to replace the existing thermostat with a new 195° unit. If the weather is extremely hot, and summer use is the only driving the MGB experiences, you can safely use a 180° stat. The thermostat is compatible with most American units. You will need a new gasket (GTG101) illus 8.

Remove the air pump fulcrum bolt #6 and allow the air pump to fall away from the thermostat housing. Release the pressure in the cooling system by removing the rad cap from the expansion tank (right inner fender). Then remove the three 5/16 fine nuts (1/2" wrench), and lift the housing upwards. Sometimes it helps to loosen the rad hose at the radiator. Clean off all the old gasket material, and GREASE the new gasket and mating flanges -- this will enable you to remove the housing easily three years from now!

When refitted, fill the cooling system through the filler cap #1 (13/16" -- use your

spark plug socket). **WARNING!!** If you still have the black plastic plug, be extremely careful loosening, and especially, tightening the plug, as it easily snaps apart.



THE WIRE FAMILIES by John H Twist 78-415

This article originally appeared in the Winter 1980/81 AMGBA Quarterly, but the membership has increased by 1500 members since that time, and the Technical Chairman receives many questions regarding the wiring and function of the electrical system.

Working from a wiring diagram for the 1978 MGB, this listing details the function(s) of each of the wires in the vehicle. Generally, these functions have remained unchanged over the life of the MGB, and are also largely the same as the later MGA's, all Midgets, and the MG1100/1300's

THE BLACKS:

Black: Always earth (ground)
Black/Green: URP switch to cooling fans

THE BROWNS:

Brown: Always HOT, unfused
Brown/light green: windscreen motor to switch
Brown/yellow: Indicator light to alternator
Brown/purple: Unused

THE WHITES:

White: HOT with ignition on, unfused
White/black: distributor to coil, coil to tachometer
White/brown: ignition switch relay to fusebox, starter solenoid to starter relay (earlier cars - oil pressure transmitter to gauge)
White/blue: stepped down voltage for distributor amplifier
White/green: Keyswitch to radio
HOT unfused at first key position
White/light green: Solenoid to coil
Resistance cable to coil
White/red: Keyswitch to solenoid relay
Solenoid relay to brake warning diode

THE PURPLES

urple: Always HOT, fused

Purple/black: Horn to horn switch
Purple/green: Key buzzer to time delay buzzer
Purple/pink: Key switch to Key buzzer
Purple/white: Courtesy lamp/boot lamp to earthing switches

THE GREENS:

Green: HOT with ignition on, fused
Green/black: Fuel tank unit to gauge
Green/blue: Temp sending unit to gauge
Green/brown: Reverse lamp switch to reverse lights; heater fan to switch
Green/orange: Brake pressure switch, hand-brake switch, brake warning diode, brake warning light
Green/pink: Service interval counter (EGR light)
Green/purple: Brake light switch to brake lights
Green/red: Left turn signals to switch
Green/white: Right turn signals to switch
Green/yellow: Heater fan circuit

THE REDS:

Red: Fusebox to sidemarkers and parking lites
Red/green: Light switch to fusebox; light switch to panel rheostat
Red/light green: Wiper motor to switch
Red/white: Panel rheostat to panel lights

THE BLUES:

Blue: Light switch to dimmer switch (headlamps)
Blue/light green: Wiper motor to switch
Blue/red: Dimmer switch to LOW beams
Blue/white: Dimmer switch to HIGH beams and high beam indicator

THE LIGHT GREENS:

Light green/black: Washer pump to switch
Light green/brown: Flasher to turn signal switch; flasher to hazard switch
Light green/green: Voltage stabilizer to fuel and temp gauge (earlier models to oil pressure gauge)
Light green/purple: Hazard switch to hazard warning lamp

THE SLATES (gray):

Slate: ON when ignition is off, Unfused
Slate/pink: Fuse to anti-run on valve
Slate/yellow: Anti-run on valve to pressure switch

THE YELLOWS:

Yellow: HOT in 3rd/4th, ignition on, unfused
Yellow/brown: Driver's seat belt to time delay buzzer
Yellow/purple: Time delay buzzer to seat belt warning light; overdrive circuit
Yellow/red: Gearbox 2/4 switch to TCSA switch

MEMBERS' RECOMMENDATIONS

We've had a wonderful response from AMGBA members offering the names of their favorite mechanics and parts supply houses. In the next few months we hope to poll these mechanics, shops, and parts suppliers asking specific information (hours, type of parts offered, labor rates, etc) which we'll include in the next Quarterly.

Remember!! The AMGBA CANNOT ENDORSE any shop, mechanic, or parts supplier, but AMGBA members may. If your favorite shop or mechanic is NOT listed, PLEASE send us the name and full address (phone number, individual's name, etc) along with your recommendation for publication in the Fall Quarterly. Then, if a member is looking for a shop in his home town, or if he's in another location and has a problem, this list (or a call to the Tech Chairman) can offer the AMGBA member somewhere to start! I've used this list several times already myself for my own customers who have found themselves with problems (both alternators!) far, far out of town.

Keep in mind that not ALL good mechanics will be satisfactory for ALL MG owners, and a shop or mechanic that is good for one member may not be the best for another. But, this list will be a good starting point for most any member. PLEASE!! Send the name and address of your shop or mechanic, with YOUR recommendation, to the Technical Chairman. You may be the member who needs assistance in a city far from home!

CALIFORNIA

Paul Kile (private)
702 Adeline Place
Davis CA
916 758 5080 by Jim Ireland 77-327

Corey Hogue (private)
9024 Central Avenue
Orangeville CA
916 988 2448 by Jim Ireland 77-327

Steve Bonner (private)
4750 7th Avenue
Sacramento CA
916 453 8662 by Jim Ireland 77-327

Jim Ireland (private)
3940 Pasadena Avenue
Sacramento CA
916 489 6013 AMGBA Member

Tower Foreign Auto Repair
Russ Steward
2544 Tower Avenue
Sacramento CA
916 481 4263 by Jim Ireland 77-327

Mike Hall
John Bull Auto Repair
199A Mayhew Way
Walnut Creek CA 94596
by Donald Graham 80-1785

British Motor Service
251 High Street
Palo Alto CA 94301
415 329 1440 by Bryan Kunic 80-1163

Norm Westergard (private)
9626 Knickers Court
Sacramento CA 95827
916 366 6292 by Jim Ireland 77-327

CONNECTICUT

Imported & Domestic
Washington Blvd
Stamford CT
by Christopher Parente 81-2115

Russe's Shell
High Ridge Road
Stamford CT
by Christopher Parente 81-2115

FLORIDA

London-Tokyo Engineering
2904 North Pace Blvd
Pensacola FL 32505
904 432 2617 by Weldon Corbitt 80-1339

ILLINOIS

Lawyer Motor Imports
DeKalb IL
by Ken Bray 81-2155

Best Foreign Car Parts
Silvas IL
by Ken Bray 81-2155

Doty's British Spares
117 East Smith Street
Benton IL 62812
618 438 0011 by Steve Glochowsky 76-171

INDIANA

Pepper's Imports
18183 State Road 23
South Bend IN 46637
219 272 8678 by Neil & Pam Plouhar

MASSACHUSETTS

Jeff Jones, Prop
Racetune Engineering
1 Griggs Street
Allston MA
617 566 8305 by Alan&Sharon Glickman 79-0976

MICHIGAN

Brooks Imported Cars
Lansing MI
by Walter Lingo 80-1609

University Motors
614 Eastern Avenue SE
Grand Rapids MI 49503
616 245 2141 by John Twist 78-415

Engel Volkswagen
618 E Crosstown Parkway
Kalamazoo MI
616 343 8022 by Edwin Vann 81-1804

Lefebvre Automotive
3848 Miles Road
St Joseph MI
616 429 7213 by Edwin Vann 81-1804

MISSOURI

Imports Ltd
2535 S Brentwood Blvd
St Louis MO 63144
314 962 0810 by David Stein 81-2180

THE TECHNICAL SECTION

INTRODUCTION

Summer is the busiest time for your technical chairman. The shop itself is very busy, there are meets and events to attend -- and as a result, the technical section in this Quarterly is a far cry from the often sixteen to twenty pages that we're usually able to put together.

I have received many letters with questions and tips which will appear in the Next Quarterly, and we've received some wonderful articles -- especially one from Walter Dickmann concerning distributor applications throughout the MGB series, and another from Ben Munday outlining the serial numbers of the MGB as well as the engine numbers. Both these are painstakingly researched, and I apologise for not being able to include them in this Quarterly.

We encourage any articles that any member may want to assemble! If you have something you'd like to pass on to the AMGBA members, please send it to me -- and we'll get it into the next Quarterly.

AMGBA TECHNICAL PROJECTS

MG Colour Listings -- The three pages of colour listings that appeared in the Summer Quarterly have been of great help to a number of members, judging by the letters we've received. There have been several omissions, most notably the use of Snowberry White on the MGC models, 1968-1969. We have also seen 1975 Midgets in Teal Blue, which is not supposed to be correct, by factory information!

We sent a list of the colour listings to BL Heritage in England, for which they were most grateful -- as there is no other listing, factory or private, that encompasses the range of colors and series as does this list.

Although the listing was confined to MG Midget, MG 1100, and MGC (besides the MGB), we do have the codes for all the MGs, 1950-1980, and a call to the technical chairman can make these specific codes available to you.

Driver's Handbooks -- The two and a half pages of listings for these handbooks is again, the only listing, factory or private, that covers the range of the MGBs, MG Midgets, and MGCs. In the winter Quarterly, we will add the handbooks from the MG 1100/1300. We have been very pleased with the response from numerous members who have taken the time to look at their handbook and compare the numbers of their's to the numbers in our list. Even in the past two months we've received an additional dozen listings!

This is an AMGBA project! We need the assistance from each member to get closer to a completed listing. Once the

listing becomes as complete as we can make it, we'll contact the Nuffield Press and ask for more information concerning the individual booklets.

Members' Recommendations -- Again, the response from the AMGBA members has been overwhelming! We have virtually doubled the size of the recommended shops and mechanics. If you have not sent off your personal recommendation for your own mechanic, please do so -- as we'll make the list more useful for all the AMGBA members by including more locales and cities. If you need to know the name of a shop or mechanic in your home town -- or in a city you're passing through, contact the Technical Chairman by phone for a name/address of a shop or mechanic.

Vehicle Numbers -- Each MG carries several different identification numbers. Some are basic and very important (the VIN and the engine number), some are still a mystery as to their use and meaning. We want to correlate the numbers from the AMGBA members cars to help us understand more about the production of the MGB.

We have been in contact with BL Heritage concerning this project, but the factory listings are cumbersome and almost impossible to copy (there are, after all, about 500,000 MGBs!). So we continue to work with the information we're able to gather from the members.

Floyd Garren, the MGB Registrar, has been most helpful in providing the MGB Registration forms once he's extracted the information he needs. We have now increased our own listings of MGs to about 1,000. We urge you to help us in this search and provide the following information:

VEHICLE NUMBER QUESTIONNAIRE

- 1 - VIN (Vehicle Identification Number)
Begins GHN, GHD, or GVVD
Location: 63-69 on right inner fender, just ahead of the radiator
70-80 on driver's side door post.
- 2 - Build Date: 70-80 only - on left door post, eg 5/71 or 11/77
- 3 - Commission Number:
Begins G23N or G23D 1968-1976 only
Location: on the "bridge" towards the left front fender
- 4 - Body Number:
Begins: MGB, MGBU or GU23T
GEB, GED, or GEUD
Location: 63-67 on driver's side (left) inner fender, alongside the air cleaners
68-74 on driver's side (left) inner fender, forward of the radiator
75-80 on the "bridge" towards the left front fender

THE TECHNICAL SECTION (Continued)

(Vehicle Number Questionnaire con't)

- 5 - Engine Number
Begins 18G, 18GA...18V
Location: on the cylinder block, between #2 and #3 spark plugs
- 6 - Consecutive Number:
Begins: this is a 1-6 digit number
Location: 1963-1967 only, on the right inner fender, forward of the fuse box on a very small metal tag
- 7 - Original Colour of the MG
- 8 - Original Colour of the Interior, door panels, seats, carpets, etc
- 9 - Anything special about the fittings on the MGB -- does it have anything unusual?
- 10- Your name and address and AMGBA number.

PLEASE forward as much of this information as you can find to:

John Twist/Caroline Robinson
614 Eastern Avenue SE
Grand Rapids MI 49503
(616) 245 2141

SAFETY FAST!

It does not matter how quickly your MG accelerates, or how fast it goes, it it cannot stop. The proper functioning of your brakes must ALWAYS be at the top of your list of priorities. You owe this degree of safety to yourself, your passenger, and all others on the road!

John H Twist #78-415



The MG MD is on vacation this Quarterly!

Sometimes it takes WEEKS before I am able to answer a technical inquiry by mail. If you have a problem that needs IMMEDIATE attention, please call at the shop. Very often Caroline, my wife, will be able to answer the question for you -- but if she cannot, I will. You can call Mon - Fri 9am to 6pm EST and on Saturdays from 9am to 3 pm.

The MG MD will return in the Winter issue with many, many questions from the members and the response to each question. Thanks for your patience.

MISCELLANEOUS RAMBLINGS

It was a pleasure to be able to attend

the National (International?) Convention in Kingston. I only wish that I had more time to spend with all the members who had technical questions. The field of MGs was wonderful, and for the first time at any convention, included almost a dozen Midgets and an MG 1100. In addition to the MGs which the AMGBA serves, there were several beautiful MGAs and one of the newest MGs, the Victor MG TF 1600 -- the reproduction TF which uses the MGB drive train.

We travelled to the convention with ten cars from the Grand Rapids area, and were off the road only once for mechanical repairs (on the way back, Craig Wood's MGB burned up its points -- there was plenty of sunlight, and we made the repair quickly and efficiently on the side of the 401).

We are beginning to see a high failure rate in the ignition relays fitted to the 1977-1980 MGBs. This evidences itself by the MGB killing in exactly the same way as the electronic ignition (the engine loses all power instantly, and the tach falls to zero, ignition light remains off), or the MGB fails to quit running AFTER the key is shut off and the key withdrawn from the switch. This relay is about \$35. I used to suggest wiring directly through the relay, but have changed my mind, as the ignition switch is not capable of handling the current drawn by the electric fans. We have seen some of the ignition switches fail too -- this kills the car in almost the same manner as the electronic ignition or the ignition relay, except that the ignition light COMES ON at the instant the car kills.

The new MG Metro is a wonderful car by all accounts I've read or heard. Be certain to inquire from your local JRT dealer about its eventual introduction into the American market -- or write to JRT directly in Leonia, New Jersey. To date, JRT is not planning to introduce the car because it no longer has an adequate dealer network or some such nonsense, but perhaps if enough people inquire about the model, they'll change their minds!

Because of the large volume of technical information that Walter Dickmann has sent to us from Germany, we voted an official "THANK YOU" at the winter business meeting in Cleveland, this past February. Walter visited the US twice this year, and attended the University Motors Early Summer Picnic in June.

We remind you that Start Your Engines of Beltsville MD is having a technical tip contest regarding their most recent catalogue. If you do business with them and see a tech tip that you like, let them know!

Several members have asked if we'll be publishing an index to the past tech tips and technical articles. If any member would be interested in building up an index from the past several years, please let me know -- as it would benefit myself and the AMGBA members greatly. We can either publish an index or reprint the tips in sections (eg, engine, gearbox, electrics, etc).

I'm very interested in hearing from the individual technical chairmen from the various local chapters of the AMGBA. John Weir from Philadelphia was helpful in assembling all the technical articles he had prepared for his chapter's local newsletter and allowing me copies. The information presented in these technical pages is from all AMGBA members and local groups! I'm very pleased to receive the local chapter newsletters, as I draw from them as well as my own experience.

John H Twist 78-415

THE TECHNICAL SECTION

INTRODUCTION

AMGBA TECHNICAL PROJECTS

Vehicle Number Survey We have been very pleased with the fantastic response from AMGBA members helping with our newest project. We received a tremendous quantity of registrations from Floyd Garren, Registrar, at the convention at Kingston, many of which had the numbers we're looking for. Those registrations, coupled with the large files we have at my own business, and with the addition of the information mailed in by the many members has allowed us to make a preliminary report of this survey. To help make future contributions a little less of an effort, we've included a "tear out" survey page in this issue which we're asking EACH AMGBA MEMBER to fill out and return to us. Another 1000 VINs and we'll be well on our way to making some positive statements concerning production dates, etc.

MG Colour Listings -- This wonderful chart of ALL the MG Midget, MGB, and MGC colours which was printed in the Summer 1982 Quarterly is still being updated and "field checked" by Caroline Robinson. The factory has provided information which is sometimes in error, as we've received a number of letters from owners regarding their MG's colour being different from the dates in the chart. We'll reprint the list when we believe it's complete.

Driver's Handbooks -- This is the last time we'll be printing this list for about a year. We thank all the members who have provided us with such wonderful information -- even BL Heritage has been grateful for a copy! We need more UK and Continental information and will be polling the UK members for such.

Members' Recommendations -- Again our listing of members' recommendations has increased. We expect it to grow dramatically when the Surveys begin to arrive here in Grand Rapids. Remember that the AMGBA CANNOT endorse a mechanic or shop, but YOU can! And it will be to every members' benefit to have as many listings as possible. Then -- when you need to know a place to take your MG, at least there is a starting point.

Our NEWEST PROJECT -- Technical Indexing

There are nearly 175 pages of technical copy from the Spring 1979 Quarterly until now. That does not include this massive 32 page technical section! In the last Quarterly I asked for some assistance in indexing the individual questions and answers, the MG MD column, the Upkeep and Performance Hints, and the Technical Features. Bob and Sally Russell of Lorain, Ohio, members of the Emerald Necklace Chapter have offered to undertake this huge task. They will be preparing two notebooks with the technical

articles and an index which we will print in the next Quarterly. This will enable you to quickly find technical information -- by using the past Quarterlies. If there is a great enough demand, we'll consider compiling the best of the tech sections and offering it to members in the form of a booklet.

Local Technical Chairmen -- We are always eager to receive technical copy from the local clubs. As your technical chairman cannot afford to join each chapter to receive the technical copy, I ask that each tech chairman send at least a copy of his tech section so that we can put it on file, or use it in the Quarterly.

Further, if any local tech chairman wants to use any tech copy from the Quarterly, please do so! It is most important that each member has access to as much technical information as he or she may desire.

I've noted with regret that Jim Kurczewski who has been the Technical Chairman of the Chicago Chapter for a number of years, has retired from that position. His column, "Tech Tips" has always been excellent.

Members' Contributions -- We are always pleased to receive technical articles from AMGBA members. This Quarterly we have a wonderful chart by Walter Dickmann of Koln, West Germany, covering the distributors, carbs, and specs of each for the MGB. Don't hesitate to prepare something for us! And, if you have a question regarding the preparation of material, please contact the Tech Chairman.

Name and Sex -- Does your MGB have a name? Is it a "he" or a "she"? You might let us know in your letters or on the VIN SURVEY sheet and if we have an interesting list, we'll print it!

SAFETY FAST

It does not matter how quickly your MG accelerates, or how fast it goes, if it cannot stop. The proper functioning of your brakes must ALWAYS be at the top of your list of priorities. You owe this degree of safety to yourself, your passenger, and all others on the road.

And remember, especially this holiday season, that DRINKING AND DRIVING do not mix!



Contact the AMGBA Technical Chairman:

John H Twist 78-415
614 Eastern Avenue SE
Grand Rapids Michigan 49503
616 245 2141

Q: I have a problem with my 1980 MGB that really "bugs" me. The mileage is really poor. The original owner changed the carbs to twin HIFs and it really performs well. It's quick and doesn't miss a beat -- but the average town mileage is 13-15 and the road mileage is 17-18! I've been reluctant to have anyone mess around with the carbs but I think that's the problem.

I installed a vacuum gauge in the dash. I was amazed to see the needle so low!! It will idle at 5" or below and on the road the needle only reads about 9". Even the decelerating vacuum is only 11". One thing I noticed, by pulling off the vacuum hose from the gauge to the main vacuum you can almost feel or hear the engine relax and breathe easier. Put it back on and you sense the labor or congestion (if you will). I would guess it's starved for air. Anyway, I don't know where to go or where to start. Any help will be greatly appreciated.

Jim Comrie 82-3084
Morris Illinois

A: Jim -- The engine is obviously not tuned correctly, but that vacuum gauge may be reading too low too! There are several things you should check on the tune-up. You should be able to perform these tasks yourself:

1) Timing: Make certain that the mechanical advance is working (can you turn the rotor anti-clockwise?) and the vacuum advance is working (draw through the vacuum tube and watch the top dist plate move clockwise). Set the timing to factory specification, about 11° BTDC at 1500 rpms with the vacuum disconnected. When the timing is set, be certain to reconnect the vacuum advance unit to a manifold fitting.

2) Carb Adjustment: First, you must make

certain that the jets and needles in the carbs are in good condition. They should be replaced after 50,000 miles. Find out from the previous owner if he ever replaced them -- if not, they should be replaced as soon as you can -- at least the needles. You'll find that ABD needles will give you good performance.

Ensure that the choke is OFF! Loosen the choke interconnecting bar if necessary to ENSURE that both the cams are flipped OFF (towards the front of the carbs) and that the cams are freely sprung towards each other.

Balance the cars with either a unisyn or with a rubber hose held to the ear. Get the air flow through each carb as close to the other as you can. Then set the idle to about 800.

Now, set the mixture. Unscrewing the adjusting screw will make the mixture leaner; clockwise will make it richer. Back off the screws, one at a time, about one full turn to begin with. Then lift the piston in the carb slightly -- a great increase in rpms indicates a RICH mixture, and immediate falling off of the rpms indicates a LEAN mixture. You're looking for an increase in rpms of about 50-100 then a falling off. After each adjustment of the mixture screws, rev the engine to clear it out. As you approach the proper mixture, the engine will idle faster and faster. You will have to readjust the idle every couple of steps or so to keep it around 800.

You should drive the car after the adjustments (air cleaners ON) and ensure that the mixture is not too lean (a snapping or coughing at light acceleration). Then see what this vacuum gauge reads. On full deceleration in second, you should easily get 25" or more. At idle, you should have a reading of 16-20" (the higher the better).

Q: I understand that the 1275cc engine fitted to the Cooper "S" Mini is the same engine as was used in the MG Midget. Is it possible to use this Mini engine in a Midget?

John Ulloth 81-M-2126
Berrien Springs Michigan

A: John -- The basic 1275 engine is about the same in all applications. This large capacity "A" series engine has proven to be one of the greatest of all the Austin/BMC designs (the other, of course is the "B" series engine, used in the ZA, ZB, MGAs, MKIII, MKIV, MGBs, Marinas, even the Nash Metropolitan! as well as many, many other applications). Why the 1275 engine was dropped in favor of the Triumph Spitfire engine is beyond me! You'll note that this 1275 is now used in the MG Metro and Metro Turbo. Unfortunately, as the Mini, Austin Americas, MG1100/1300s, and Metro all carry their gearboxes BELOW the engine in the "sump" a number of oil and bolt hole patterns have been changed. This makes these high performance engines very difficult, at best, to introduce into the MG Midget. Perhaps our readers are more knowledgeable -- and someone out there has used a mini engine in a Spridget.

Q: I have a minor, but irritating problem with my 1980 MGB. After using the windscreen washer the pump will operate by itself whenever I turn a corner. This has been going on for months and I've now given up using the washer.

I have complained numerous times to the dealer, but nothing seems to work. I've had

two new pumps and a new switch.

Do you know of anyone else who has had a similar problem? If so, how did they solve it?

Tim Allen 81-2076
Dallas Texas

A: Tim -- I can offer no suggestions at all, except that it appears to be in the wiring at the steering column. I'm eager to hear from anyone who can help us solve this one!

Q: My 1964 MGB has been disabled for nearly two years now! My problem is that rear end differential fluid is leaking onto the rear brake shoes. This happens on the right rear only. I can tell it's rear end fluid by the odor. The MGB has wire wheels. Perhaps you can outline the correct procedure to fix this.

Daniel T Wagner 80-1029
Lafayette California

A: Daniel -- Diff fluid will escape into the rear brakes if the seals are faulty or if the breather on top of the diff is plugged (causing the oil to slightly pressurize inside). Make certain that the breather is open. Then:

- 1) Having jacked up the rear end, supported the MGB on jack stands at the front of the leaf springs, and removed the wire wheels;
- 2) Have someone push on the brakes while you loosen the four 3/4" headed nuts on each drum;
- 3) Back off the brake adjusters and remove the rear drums;
- 4) Unscrew the phillips head screw holding the half shaft and splined hub to the rear hub and withdraw the halfshafts;
- 5) Flatten the locktab holding the octagonal nut, and loosen and remove the nut and locktab. The right side nut is right hand thread, the left side is left hand thread. Loosening the 8 sided nut is a chore at home. Carefully use a pipe wrench or find a proper tool!
- 6) With a slide hammer, pull the hub and bearing assembly from the axle case;
- 7) Use a large socket and drive the bearing from the hub;
- 8) Replace the seal in the hub with the lip TOWARDS THE BEARING!
- 9) And reassemble in reverse order, using a new set of shoes, of course.

Q: I have a 1977 MGB on which I have installed a Weber carb. Do I need a PCV valve as an AMGBA de-pollution article suggests? If so, where can I fit it?

Rod Baker 82-2991
Spring Texas

A: Rod -- It is best to keep some air flowing through the engine although it is impossible to connect a conventional PCV valve into the intake manifold. My suggestion is to run a hose from the front tappet inspection cover to the center of the air cleaner. Find some sort of brass fitting at the hardware or auto supply shop that will fit tightly into the cover of the air cleaner yet accept your 1/2" ID PCV hose. This will allow fresh air to be pulled through the engine and will help to keep the blow-by from creating condensation and acidity in the oil.

Q: I have recently purchased a 1966 MGB. Only after I had received the car did I discover that the previous owner had been running with negative ground, and the tachometer doesn't work. I plan on switching back to the original positive ground and would like to rebuild the electronic tach. Do you know of any source for the schematic diagram of the tach so I can test the elements in the circuit?

Steve Fulkerson 81-2535
Belvidere Illinois

A: Steve -- It is not critical for any of the electric components of the MGB to be wired either positive or negative earth. Many owners find that "modernizing" their MGs to negative earth makes it a little easier to install a radio, cassette player, whatever. But, if you do return to positive earth, you may find that the tachometer works just fine -- that's usually the case.

If you do want to make the switch to negative earth, you will need to make some internal changes in the tach and attend to several other connections as well:

- 1) Coil leads: WHITE to + or CB; WHITE/BLACK (distributor to coil) to - or SW.
- 2) Heater: Switch the heater on, feel the air flow, then reverse the wires at the heater motor and again feel the air flow. Leave the connections in whichever alignment offers the greatest air flow -- sometimes there is no difference.
- 3) Rewire the tach and make internal changes: This information originally came from Peter Laidler, MGOC, of Abingdon, England:
 - a) Remove the tach from the dash and remove the chrome bezel and front glass. This is often difficult as the old rubber "O" ring has long since gone into a mess. Bending the small chrome clips sometimes helps.
 - b) Remove the two screws from the back of the unit that hold the guts in place -- these screws have washers underneath. The internals should now drop from the case -- BE CAREFUL of the face and needle!
 - c) Locate the male spade terminal which is the power connection -- to which the WHITE or GREEN wire was connected. This terminal has a resistor soldered to it. The ground terminal is about an inch to the left of the power terminal spade and has a covered wire soldered to it. Unsolder and reverse these connections: Wire to the power, resistor to earth.
 - d) Reassemble the unit -- I use clear silicone gasket sealer in place of the messy old "O" ring under the bezel. Be certain to clean the glass face, inside and out.
 - e) Now it's necessary to reverse the connections on the "White wire loop" at the back of the tach. Since the white wire is continuous from the switch to the coil, it will be necessary to cut the wires and reverse the loop. To make certain that you don't reconnect it the same way, mark one of the wires at the loop and where it comes out of the loom with a piece of black tape.
 - f) Refitted and connected, the tach should now work! Many thanks to Peter Laidler!

Q: I purchased a 1974 transmission and plan to put it in my 1967 MGB/GT as it now has a non-synchro first and it grinds a bit on downshifting. I'm not quite certain what all should be changed. I understand the flywheel

and starter must be changed. A friend of mine said the newer trans lines up differently where the shifter comes through the tunnel to the interior. How should I approach the problem?

Wilson Harpe 82-2908
Venice California

A: Wilson -- First, I would urge you to explore the costs of rebuilding your existing gearbox. Originality will be of greater concern as time goes on, and this all synchro gearbox involves some cutting etc.

You have several considerations when changing: 1) drive shaft length -- it must not be fully extended or fully collapsed when the rear axle is at its full up or full down position; 2) speedo drive ratio -- you'll find that this newer gearbox gives a different number of "turns per mile" of the speedo cable than your old unit. You can either get a reduction box for the speedo cable or suffer a high or low reading on the clock; 3) The gear lever will be positioned about four inches rearwards of where it has been -- you'll have to repair the carpeting and fabricate a new surround. Unfortunately, the lever will come through the tunnel just as the tunnel begins to dip downwards, making a "clean, professional" installation very difficult.

You have the option, when fitting this gearbox to your engine, of: changing the fly-wheel, backing plate, starter (and all starter wiring) with a 1968 or newer MGB; OR, cutting a hole in the later gearbox so that the starter bendix does not interfere with the case. I would suggest the latter. By determining where the starter will come through the case, you can then drill a series of 1/4" holes around that center mark and dash the aluminum out with a mallet -- or you can use a small sabre saw capable of cutting through this thick aluminum.

Lastly, you'll notice a 90° corner at the right side of the gearbox just above the starter position. This will interfere with the tunnel in your MGB, so you'll have to "adjust" the tunnel with a hammer.

The all synchro gearbox is a very fine unit, and you probably won't have any problem with it for the life of the MGB!

Q: Have you heard of a new product by the name of Petroharts Slick 50 dry film engine treatment? It's a type of teflon coating for the inside of an engine. It also has been called Slick 50 TFE Resin engine coating. I have heard quite a bit about it up here and all of it is good. Would this be good for the MGB engine? (ie tappet noise reduction?).

Douglas Miller 81-2282
Seattle Washington

A: Doug -- I've heard a lot about the teflon type of oil additives or treatments, but very little from AMGBA owners who have actually used the product. I tried AMS/OIL in my MGA -- engine, gearbox, and diff. It did seem to increase my mileage by about 2 mpg -- but these weren't controlled tests, either. I'm waiting to hear more. Can AMGBA members respond?!

You might try adjusting your tappets again to rid yourself of the noise (although it is always there!). Set them to 0.013" hot for your 1980 MGB.

Q: I always know when my 1979 MGB needs to be tuned up because my gas mileage starts to fall off. After recently tuning my B it has the following characteristics:

1) Gas mileage has improved to about 22-23 mpg which is better than previous, but still below its optimum of 30 mpg (highway).

2) The idle speed is inconsistent. When the car is started for the first time of the day it idles fine, right around 850. After driving somewhere far enough for the engine to reach normal operating temperature, shutting it off, and then returning to start it after a 10-20 minute errand, the engine stumbles at idle, well below 850 and sometimes stalls without pressing on the accelerator to keep it running. If it were to have been started after a longer wait (30-45 minutes) it would idle OK.

3) Acceleration is sluggish and the engine occasionally diesels for about 3-5 seconds after shutting it off.

People have told me that if I want the car to run consistently well I should replace the stock Zenith 175 CD-5T carburetor with a Weber conversion kit.

Any suggestions?

Gerald Granath 82-2982
Carbondale Illinois

A: Gerald -- I would suggest that you work with your existing system. Converting to a Weber is NOT necessary to have the MGB perform wonderfully well. A "de-toxed" well tuned modern MGB can "get rubber" in three gears and get 30 mpg! A couple of ideas:

1) If you wish, remove the smog equipment from the engine. That is, the smog pump, the air manifold, and the gulp valve. Then tie the vacuum advance directly to the distributor plumbing through the TCSA switch on the brake master cylinder box. This will slightly improve acceleration, dramatically improve deceleration, eliminate any "popping" from the exhaust, and the converter will never glow red hot.

2) Ensure that the manifold is tight against the head. Snug down the four 1/2" headed nuts and the 1/2" headed bolts at either end of the manifold. A vacuum leak here can cause erratic idling.

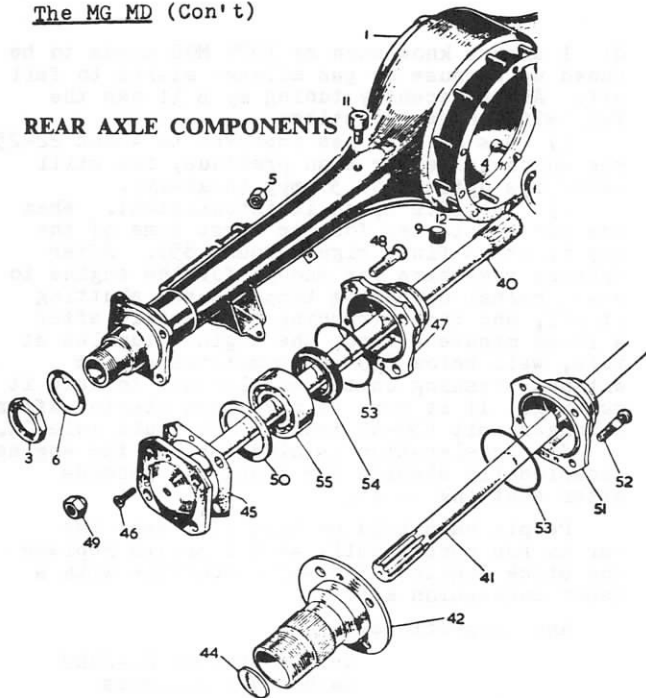
3) Ensure that the choke assembly on the left side of the carb is TIGHT against the carb body. Removing it to clean and lubricate the linkage is always a good idea.

4) Your basic problem is probably the mixture adjustment. Make certain that the tune-up you are doing or are having done includes the mixture adjustment (done through the top of the Zenith suction chamber). The mixture adjustment on a "de-toxed" MGB is the same as for the SUs -- lift the piston slightly and note the increase or decrease in idle.

5) The dieseling you describe is from a very incorrect mixture, or the PVC lines or ELC (Evaporative Loss Control) lines are fractured or leaking.

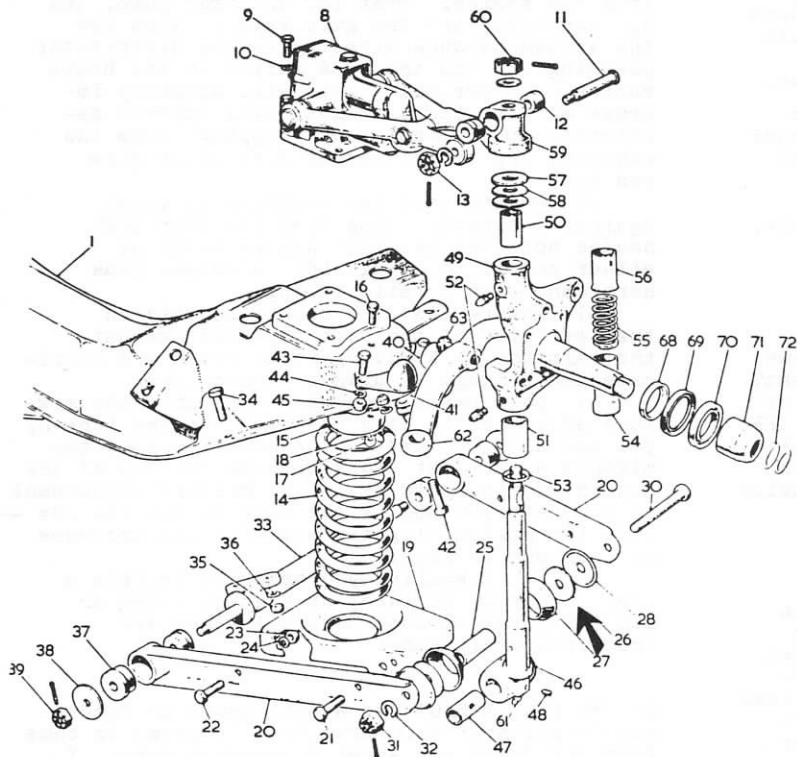
Q: My 1967 MGB/GT has a dull knock on sudden acceleration or deceleration. It seems to come from the front end wheel suspension area. I cannot detect play in this area when the car is on the lube rack. I've had a recent brake job, new wheel cylinders and have replaced the universal joints and the wishbone

REAR AXLE COMPONENTS

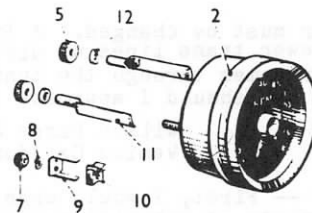


Daniel Wagner's leaking rear seal may be corrected by the removal of nut #3, washer #6, then sliding hub/bearing/seal #47 #54 #55 off the rear axle tube. The bearing is then driven out of the housing and the seal #54 changed.

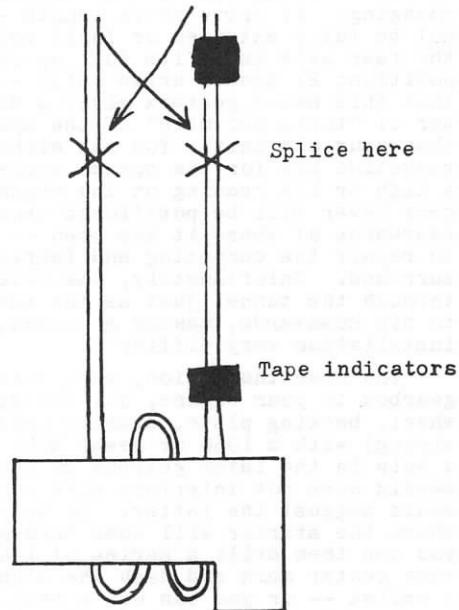
THE FRONT SUSPENSION COMPONENTS



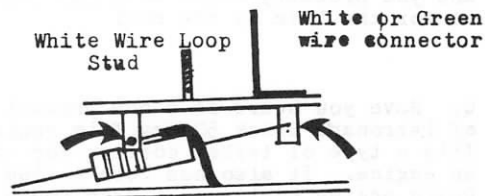
Charles Manley's front end clunk is probably coming from excessive play between the base or the kingpin #46 and the A Arms #20.



The Tachometer showing the "White Wire Loop" as items 9 & 10



To Change the polarity of the tachometer (65-67), tag one of the white wires of the "White Wire Loop", then cut both wires and resplice oppositely.



Reverse the soldered connections shown by the arrows above.

THE MG MD (Con't)

bushings. What could be the problem -- What are the solutions?

Charles Manley 82-3055
San Jose California

A: Charley -- The cause of this dull thud is probably excessive freeplay at the base of the kingpin. With reference to the copy of the workshop manual page: Bolt #30 passes through the A Arms #20 and through the distance tube #25. If the washers #26 or #28 should rust away or be damaged, then the base of the kingpin and the bushing within it #47, can have too much fore and aft play. This will result in the thud you describe. To properly repair this bottom of the kingpin, you'll need:

#47 Bushing	BTB 768 x 1
#46 Distance tube	BTB 1773 x 1
#26 Thrust washer	AAA 1390 x 2
#28 Support	AAA 1324 x 2
#30 Bolt	AHH 4001 x 1

Q: I am the owner of a 1969 MGC/GT. I purchased it used about one year ago. I have tuned the carbs and the mixture is correct. It runs and starts well, but has one problem. It diesels or runs on for 20 to 30 seconds after the key is turned off. I cannot get high test gasoline so I use a 50/50 mixture of leaded regular and unleaded high test.

What should I look for? Could it be a carbon buildup?

Bill Busby #82-3429
Raleigh NC 27606

A: Bill -- Conditions that cause spark knock or pinging, and dieseling or run on are caused by: high compression (design or carbon buildup); advanced spark; high idle or tickover; low octane gasoline; engine heat; and mixture.

Solving this aggravating problem is very difficult. The solutions include: Fitting lower compression pistons (hundreds of dollars); removing the head to grind out the carbon (the head set alone is now about \$150!); retarding the spark (loss of efficiency and mileage); lowering the idle; increasing the octane of the gasoline through mixing or additives (messy and not always helpful); fitting a lower temp thermostat (loss of engine efficiency or oil dilution problems); or enriching the mixture (loss of mileage).

You can fit several devices to kill the engine the instant the key is turned off. Adrian Tyndale, AMGBA member from England, offers a vacuum valve through his company "Carspares." This valve opens when the key is turned off and allows fresh air to enter the intake manifold, leaning the mixture and stopping the engine quickly.

You can "retrofit" an anti run on valve from a later MGB which places intake manifold vacuum above the gasoline in the float bowls when the engine is shut down, stopping the petrol from mixing with the air at the jet. Both these solutions involves additional parts and some extra wiring.

I have a 1962 MGA with 9:1 compression which diesels every time I turn it off. Rather than allow the engine to jump and jerk for several seconds, I simply let the clutch out as the key is turned off. That's not good for the clutch, but it's probably better than the jumping and straining on the motor mounts, let alone the foul smell caused by dieseling.

Q: I am trying to locate an aluminum cylinder head with four inlet and four exhaust ports for my MGB. I first learned about this cylinder head while thumbing through MGB by Stuart Turner and John Organ, published by Robert Bentley. In the book, they refer to it as an HRG Mark III alloy cylinder head (available from Derrington Engineering) and suggest that two twin choke Weber Carbs or the Tecalmit-Jackson fuel injection system can be used to great advantage with this cylinder head. I would greatly appreciate any advice and information trying to locate one of these alloy cylinder heads.

Kelly McBride 82-3043
Chico, California

A: Kelley -- The Derrington and Downton cylinder heads, single ports or cross-flows (yes, there are cross flow heads for MGBs!) are only available used, today. Derrington was located in Kingston (SW of London) for many years, but whether they're still located there, I have no idea.

I would suggest you contact:

Ron Hopkinson
1102 London Road
Alvaston, Derby, ENGLAND or

John Hill
Arthur Street
Redditch
Worcester B98 8JY ENGLAND

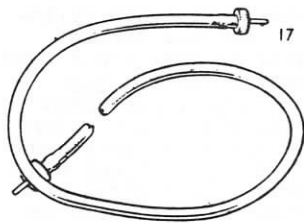
I answered an ad for a cross flow head about four years ago to learn that it had been sold, complete with Weber carbs, for about \$1000.

Q: I own an MGC which continually overheats. I have had the radiator checked and rechecked. It is a real annoyance here in sunny (and hot) California! The heater is inoperative (could that be the problem since the water does travel through the heater?). What can I check next?

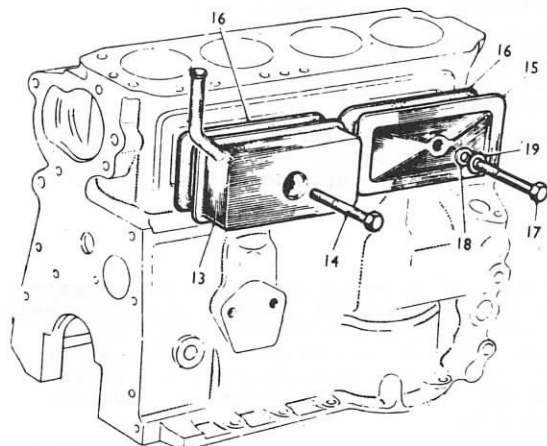
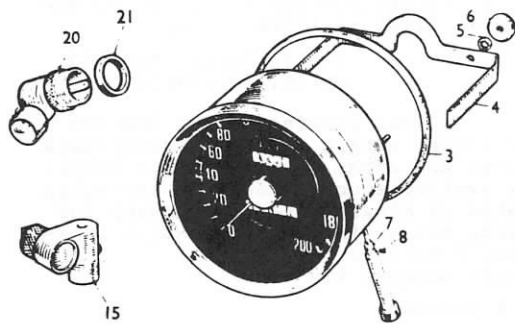
Tony DeLellis III 81-2767
South Pasadena California

A: Tony -- The overheating can be from a number of causes, but the first item to check is the actual temperature -- is it really overheating? Sometimes the gauge reads "H" while, in fact, the engine is running at a normal temperature. Of course, if the coolant expands so greatly that it runs out from the rad cap, then it's probably too hot (or the rad cap is faulty).

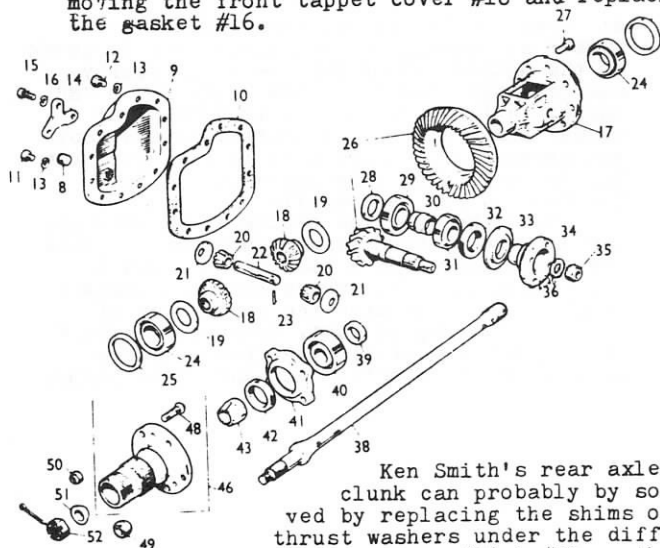
Check the ignition timing -- if it's too far advanced, overheating can occur; replace the thermostat with a 160° new one and a new gasket GTG 101; ensure that the coolant is FULL (MGCs can give the appearance of being full when, in fact, they're only half full) and make certain that you've got a good solution of antifreeze and water 50/50.



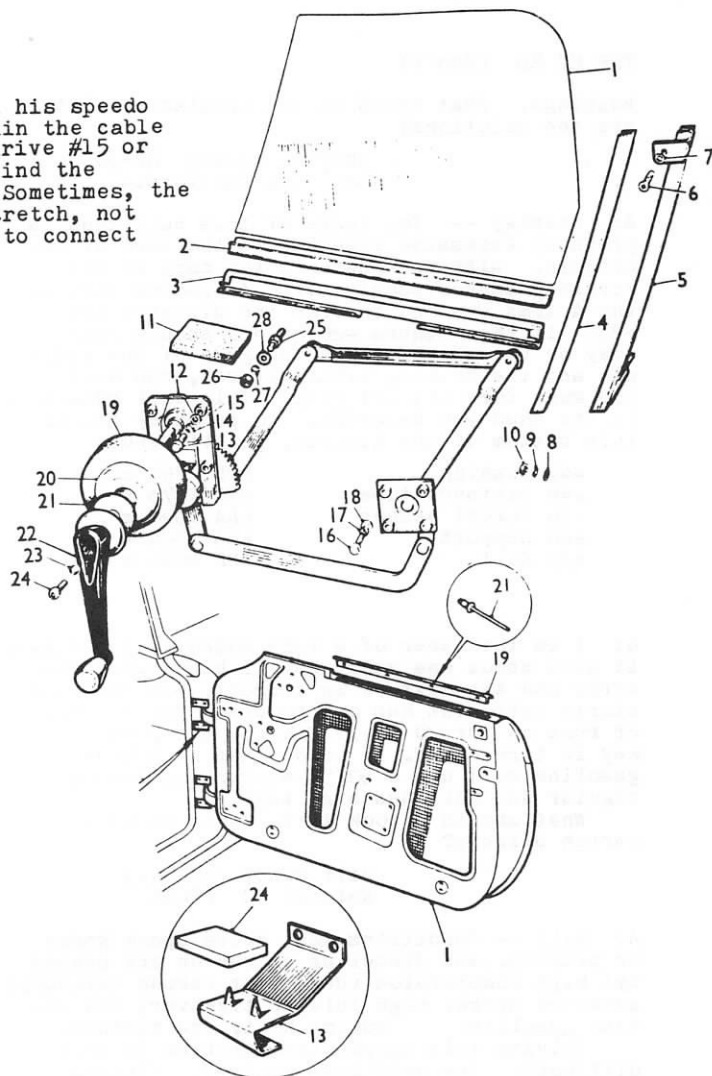
John Weir's problems with his speedo are probably located within the cable #17, or the right angle drive #15 or the right angle drive behind the speedo (if fitted) #20. Sometimes, the outer cable sheath can stretch, not allowing the inner cable to connect at both ends.



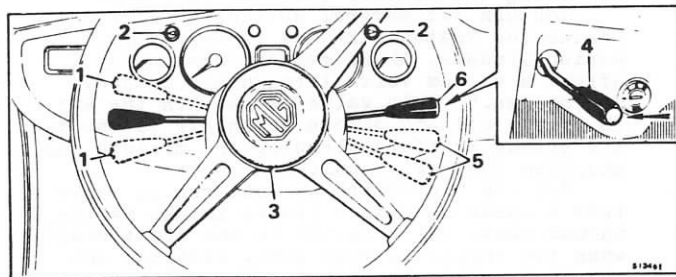
Mike Debreczenyi can stop his oil leak by removing the front tappet cover #16 and replacing the gasket #16.



Ken Smith's rear axle clunk can probably be solved by replacing the shims or thrust washers under the diff and pinion gears #18 & #20 -- the washers are #19 and #20. BE CERTAIN to replace the roll pin #23 and secure it with a split (cotter) pin! A New gasket #10 will also be needed.



Don Pepper can replace the outer window seals #19 by either removing the rear track and the window glass #'s 7 and 1, or by removing the window stop #24 or #13



Ronald Mansi can install a "kill switch" on his MGB by using the overdrive switch #4 to turn the fuel pump on and off. This will not kill the ignition, but will allow the car to be driven less than 1/2 mile. All MGBs after 1970 have a locking steering column -- and if operational, should thwart any theft except by the "experts" who you cannot stop anyway.

Q: We own a 1977 MGB and we have an oil leak on the driver's side of the engine near the catalytic converter -- below or near the intake manifold. I was told the leak could be repaired by disassembling the manifold and replacing the rubber seals (there are two). Would this be the Intake Manifold I need to remove?

Michael Debreczenyi 82-3235
Des Plaines Illinois

A: Mike -- The front tappet inspection cover is almost always loose on the newer cars. Whether it is loose assembly or whether it is the heat from the exhaust and converter which causes the gasket to fail, I'm not certain (although I suspect the latter). You CAN, with some difficulty, replace the gasket on the front inspection cover (JRT part number 12A 1139 -- cork) without removing the manifold. Yet sometimes, replacement is not needed and just tightening the 1/2" headed bolt in the center of the inspection cover is sufficient to slow dramatically or even stop the aggravating oil leak. Then, sometime in the future, when the manifolding has been removed for another reason, the gasket can be changed.

To do the job IN SITU (I love the Latin in the old workshop manuals) rather IN PLACE, the engine needs to be cool. Remove the air filter cannister from the carb. Remove the housing which fits the hot air tube to the filter assembly -- located at the front of the exhaust manifold. One 7/16" headed bolt must be removed from the exhaust manifold, and the 1/2" headed nut must be removed from the manifold clamping washer to allow this sheet metal assembly to be removed.

Now, with these things out of the way, it is possible to carefully unscrew the 1/2" headed bolt from the center of the front tappet inspection plate, remove the cover, clean off the old cork gasket, and refit the new one. When the inspection cover has been removed, blow through the outlet to ensure that the oil separator is not blocked. In one case I've seen, the separator was cooked solid by the enormous heat of the converter -- and as a result, the engine pressurized, blowing oil out of seals, gaskets, everywhere! Use clear silicone gasket sealer on both sides of the gasket, and replace the cover as horizontally as possible.

The rear cover rarely leaks. It has an orange rubber gasket -- but you can always tighten the cover to ensure that it won't leak in the future.

Q: I have been having a problem with a 1977 MGB's electronic ignition. Would it be practical to install a 1975 distributor with points. This distributor I have has only 15,000 miles on it and it would be a lot cheaper than the Lucas unit! But is there a change in the advance curve or vacuum advance.

Dave Kunte 78-0526
Rome Pennsylvania

A: Dave -- Electronic ignition was fitted to all Federal specification MGBs 1976-1980, and was fitted to 1975 California specification MGBs. (See Walter Dickmann's wonderful distributor chart in this issue.) It was never used in Canada or for the home market. In 1975 (which includes the 1975 US Federal MGBs), Lucas changed the distributor style, points, cap, and connections and these later style distributors are not common with the earlier style (1954-1974).

The electronic ignition units are a source of continuous frustration! The amplifier or switching unit is located on the distributor itself and is subject to all the heat and vibration of the engine. Even the ignition coil was spared that kind of abuse (fitted first to the right front motor mount, then to the right inner fender).

When the Lucas unit fails, there are several options: 1) replace the existing Lucas unit with a replacement Lucas unit for about \$225 or under the JRT 50,000/5 year mandated guarantee; 2) replace the existing unit with one of the electronic aftermarket units, Piranha, Lumenition, Allison; or 3) replace the existing unit with a point style distributor.

The advantage to replacing the existing unit with either the modern Lucas unit or an aftermarket electronic unit is that the advance curve and vacuum advance curve remains at the manufacturer's specification. Additionally, these electronic units which place the amplifier or switching unit on the firewall or inner fender seem to have a very, very low failure rate!

The point style replacement may be less expensive -- and the advance/vacuum curves may actually give better performance, but it's a trial and error method. I've found that by the time an older distributor is returned to satisfactory standards, the costs nearly equal the electronic units. Yet your use of the 1975 point style distributor is probably your best solution.

Q: What are the possible causes of, and how would I repair an inoperative speedometer? It just stopped working. I get no MPH reading at all, and nothing registers on the odometer or tripmeter. The cable connections at the gearbox and the back of the speedo seem secure. Is there a way to tell if it is the gauge or the cable?

John Weir 77-353
Philadelphia Pennsylvania

A: There are a number of individual components of the speedometer system: 1) the driving and driven gear within the gearbox itself; 2) the right angle drive connecting the gearbox to the speedo cable; 3) the speedo cable; 4) on several years, there is a right angle drive at the back of the speedo; 5) the speedometer itself.

The easiest way to start to sort out the problem is to remove the speedo cable from the back of the speedo. Holding the inner cable in your fingers, drive a short distance trying to keep this inner cable from turning. Then 1) If it does not turn, the problem is the cable, the right angle drive, or the gears in the gearbox; 2) If it does turn, the problem is the cable, the right angle drive at the back of the speedo (if there is one, the cable enters from the right), or the speedo. You'll note that the faulty cable occurs in both these possibilities! The cable can be broken failing to transfer the motion to the speedo, OR, the outer cable can have expanded enough so that the inner cable can no longer make a good fit into the speedo or the right angle drive.

Returning to our test, if the cable spins, then it will be necessary to remove the speedo, check it (use a hand drill in REVERSE!), and correct whatever is faulty.

If the cable does not turn, withdraw the

inner cable to ensure that it is not fractured. Then jack up the right side of the car, and remove the 90° drive from the gearbox. You can spin the drive with your fingers to check it out. Finally, if everything has been OK so far, place the gear selector in neutral, hold the speedo cable drive on the gearbox with a pair of needlenosed pliers, and spin the left rear wheel. If the speedo drive fails to turn, it will be necessary to remove the driven gear (consult your workshop manual), and inspect it -- WATCH OUT for the oil which gushes from the speedo drive hole when it's removed!

Generally, the most common fault is the 90° drive at the gearbox, followed by either the cable or the speedo. That 90° drive is available from the dealer for about \$50! But the old one can be fixed.

Q: I am considering installing headers and a good free flow exhaust system on my 1974 MGB. Do you have any recommendations?

Philip McCleary 82-3351
Mesa Arizona

A: Philip -- My honest suggestion is to leave the existing exhaust manifold IN PLACE! The factory exhaust manifold is a wonderfully designed and heavy duty unit. You can run a front factory or aftermarket pipe from it and connect to a free flow system without difficulty. My limited experience with headers has been less than satisfactory. Either they leak at the head/manifold gasket, or they leak between the connection from the header to the exhaust. Further, the life of the header is far less than the factory cast iron manifold. Obviously, for racing and high speed work, the header or extractor is the way to go -- but for the street and the pocketbook, I'd suggest you stay with the factory system.

There are several aftermarket "free flow" exhaust systems available. The one I have the most experience with is the ANSA system. There can be some mounting problems in the rear, but once solved using the factory mounts and some imagination, the system looks good, sounds great, and seems to last longer than the factory or as-factory aftermarket systems.

Q: I own a mint 1974 MGB and I would like to install a kill switch on it as a method of theft protection. Would you please let me know how I should go about this and any other info pertaining to this question?

Ronald Mansi 82-2924
Attleboro Massachusetts

A: Ronald -- A kill switch can be installed to keep the distributor from working, or the fuel pump from pumping. The most common type of kill switch for most cars is a wire from the distributor side of the coil run up to the dash area where it is connected to a switch. The other side of the switch is grounded. When the switch is "ON", there will be no spark produced at the coil. Although this can be easily done, it does involve stringing another wire under the bonnet and the installation of a switch under the dash.

Published in an earlier Quarterly was a truly excellent tip from a member who used his overdrive switch as a fuel pump switch -- as a means of theft control. This overdrive

switch is integrated into the wiper switch on all MGBs 1968-1976. The switch flicks fore and aft; it is "ON" in the aft position. This switch cannot be used as a fuel pump switch if the MGB is fitted with overdrive, but very few MGBs have this desirable option.

To connect the switch: Find the YELLOW wire on the right inner fender at the junction of the main and rear looms. This YELLOW wire comes from the overdrive switch and is HOT when the ignition is ON, switch pulled aft.

Find the WHITE wire in the rear loom (the rear loom has about ten wires, the gearbox loom about four, and the main loom seems to have hundreds!) at the junction. Disconnect the WHITE wire of the rear loom from the 4-way connector with the other WHITE wires, and connect this WHITE wire to the YELLOW wire from the main loom. Now the fuel pump will work only when the switch is pulled aft.

Q: I own a 1967 MGB/GT. The rubber in the windows is bad and scratching the glass. I've tried to follow the instructions in the workshop manual to no avail. I can't get the regulator out, nor lower the window sufficiently to change the rubber. Is it true the factory installed the regulator and then welded the door together?

I've had several people tell me that "friends" they know made a tool which does the job without dismantling the door -- but no one has really seen the tool (or the "friend!").

Don Pepper 82-3180
San Gabriel California

A: Don -- There are two methods of replacing the outer seals on the door: 1) remove the regulator stop and lower the glass; or 2) remove the glass from the door. In neither case is it imperative to remove the regulator! The rubber strips AHH 6348 and AHH 6349 can then be replaced.

1) At the base of the door, in the center, is a bracket that limits the downward motion of the window glass. This can be loosened or removed and the window glass can be dropped just far enough to change the rubber seal.

2) The regulator can be loosened, the rear track removed, and the glass lifted free. This involves slightly prying the wheels from the base of the glass runner.

3) The pop rivets you'll need are 1/8" x 1/4".

If you or if any of our readers come across the "friend" with the special tool, please clue us in. There's no question that this is a cumbersome task.

Q: My 1974 MGB roadster has just passed the 100,000 mile mark and has a 'clunk' in the rear axle which is noticeable when changing up through the gears. Otherwise, there are no unusual gear noises.

I have isolated the problem to the differential unit which has 0.2" backlash, measured at the outer edge of the pinion drive flange.

What's the prognosis and do I need to take any action in the near future?

Ken Smith 81-2043
Semmes Alabama

A: Ken -- Clunking from the rear axle can be due to wear in a number of locations: 1) the U joints; 2) wire wheel tightness; 3) axle to diff gear fit; 4) axle to rear hub fit; 5) diff gears to pinion gears fit or thrust washer wear; 6) front flange to pinion fit. Sometimes a clunk will appear to be coming from the differential when it is actually a loose axle on the leaf springs, a faulty shock link, or a faulty shock. Be certain to examine all these "non-differential" possibilities before digging into the diff itself.

1) U joints: The U joints wear over time and when they become faulty a clunking can (and most often does) occur. This clunk is usually accompanied by a ringing noise just after the clunk. Additionally, as the U joint wear becomes greater, a high speed vibration often occurs since the drive shaft is no longer centered.

2) Wire Wheels: Even though the spinner appears tight, the wire wheels can still have slop. To check for this potential problem, jack up the rear of the car, have someone push the brakes on HARD, and try to rotate each of the rear wheels. Even the slightest looseness can cause a clunking. If the wheels are loose, either the spinners have to be tightened further, or the wheel or hub should be renewed.

3) Axle to diff gear fit: This can be examined ONLY when the rear of the MGB is elevated, the oil drained from the diff, and the handbrake lever and rear plate are removed. With a bright light illuminating the diff internals, have an associate put on the brakes, and turn the diff front flange to and fro. The crown wheel will turn slightly, the carrier will turn with it, and the diff and pinion gears will move slightly until the freeplay is taken up. What you're looking for is motion of the diff gears (side gears) without motion of the half shaft. If the diff gears can turn slightly, some of the "clunk" could be coming from there.

4) Axle to rear hub fit: There seems to be no problem with the MGBs in this respect, although it could be checked by grasping the top and bottom of the rear wheel and shaking violently to determine any play.

5) Diff gears to pinion gears -- or thrust washer wear: This is most likely the cause of the problem and can be determined by the same method as in #3. The less the front flange can turn, rotationally, the better, but 1/4" is not much play!

6) Front flange to pinion fit: Sometimes the front flange nut can work loose and allow the front flange to have a slight amount of freeplay. This is very unusual, but can be determined by grasping the pinion flange and attempting to push and pull it in and out of the diff; and by shaking it up and down. Any play is too much.

The most common cause of the play within the diff is the wear of the thrust washers under the spider gears (diff and pinion gears). It is possible to change the thrust washers without removing the carrier from the diff. To do so, the half shafts must be removed, which entails removing the hubs, the brake backing plates, disconnecting the handbrake, and using a slide hammer to pull the half shaft from the rear axle. While these half shafts are out, the rear bearings can be cleaned and checked.

Remove the rear plate, and roll the carrier around until the side carrying the roll pin is horizontal to the ground, towards the rear of the car. Use a punch and hammer and remove the

roll pin. Then the pinion shaft can be drifted out, and the four gears will slip out of the carrier. Check the fit of the diff gears on the half shafts. Then replace the thrust washers and fit a NEW roll pin through the pinion shaft. Should the old pin be reused, it could snap, the pinion shaft could then work out of the diff carrier, and CRASH, a new diff is needed -- certainly an unnecessary expense.

Suggested by Peter Laidler of the MGCC, when refitting the roll pin, fit a split pin (cotter pin) through the roll pin (the roll pin is hollow). This makes the shear strength of the roll pin much higher and precludes any possibility of the roll pin slipping out.

The parts needed for this replacement are:

2 x	ATB 7072	Thrust washer
2 x	1G 7445	Thrust washer
1 x	BTB 674	Gasket
1 x	BTB 715	Roll Pin
1 x		Split pin for BTB 715.

Be certain to use 90/140 hypoid gear oil in the diff.

Q: My 1968 MGB roadster was once a stolen car and as a result had almost all ID tags removed. It has been identified by the Washington State Police and given a Washington State ID number. The ID suggested by the State Patrol was not 100% positive, but I wound up with a VIN of GHN 4U 152 056 G. The engine number is still on the car and is 18GH WE H 4540. The Washington State ID number assigned to the car is WA 7435905. The car was originally mineral blue with a black interior.

By sending this information to BL Heritage, do you think I could expect them to confirm the numbers? If they did, do you know how I could possibly get an original number plate for the 1968 MGB with the proper VIN on it? The car is about to undergo a lengthy restoration and I would like to get the original numbers back on!

Don Holmes 76-164
Quilcene Washington

A: Don -- I would suggest writing to BL Heritage, enclosing \$5 for their services, and asking them for confirmation of the information you have. Contact:

Anders Ditlev Clausager
BL Heritage Limited
Castle Road
Studley, Warwickshire B80 7AJ
ENGLAND

BL's record of body numbers, commission numbers, VINs, and engine numbers is not complete (hence our massive AMGBA numbers project!), but they should be able to let you know if the VIN is correct.

With that information, you should be able to contact your Secretary of State and for a fee of some sort, be able to once again register your MGB under its proper numbers.

Replacement of the original tags will probably be more difficult, but contact:

Peter Laidler
80, Howard Cornish Road
Marcham, Abingdon
Oxfordshire OX13 6PU
ENGLAND

Peter has a wonderful assortment of labels for the MGBs and may well have number plates in production.

Q: On the way back from Kingston, my 1969 MGB expired with what sounds suspiciously like a faulty rod bearing. Due to the age of the engine and assorted difficulties indicative of wear, I am planning to replace the engine with a later version. Aside from the carbs and emission controls, is there any difference in the later engines? Can one be retrofitted to the 1969 without major problems?

Also, the engine can apparently be removed with or without the transmission. Which method is to be preferred when changing the clutch? (Haynes and Chilton conflict on this point.)

Ron Rosen 78-650
Somerset New Jersey

A: Ron -- Retrofitting engines poses no problems at all with all engines 1968-1974. The earlier engines (five main) 1965-1967 will require an exchange of the backing plate and flywheel. The later engines, 1974 1/2 - 1980 with the modern style motor mounts will require that the front engine bearing plate be exchanged with an older one. This requires the disassembly of the timing cover, chain and gears. Otherwise, they're all the same. If you use a 1975 or newer engine, you'll have to plug off the water outlet at the left rear of the cylinder head.

I rarely remove the engine and gearbox together. Unless the gearbox has to be removed, there is no point in disconnecting it from the mounts. If you remove the exhaust system from the car, the manifolding, the starter/distributor/coil/oil filter/alternator from the right, you'll find that the engine slides in and out effortlessly!

UPKEEP AND PERFORMANCE HINTS

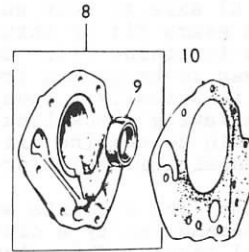
GEARSHIFT GAITER When the gearshift gaiter on my MG Midget became torn, I took it as a pattern to a local chair upholstery shop where they made me a new one, using the old to go by, out of black naugahyde for \$2.00.

O C Stonestreet III 82-2837
Mooresville North Carolina

FRONT GEARBOX SEAL Removal of the earlier MGB engine is a problem all MG owners will have to face up to at some point in time. Removal of the motor necessitates angling to clear the cross member and front shelf (bridge) and since the gearbox can only come up so far before contacting the firewall, it puts a certain amount of strain upon the first motion shaft. This presents no problem for a gearbox which is fairly new or rebuilt. However, through painstaking experience I have learned, as a rule, to replace the front gearbox seal to eliminate the possibility of a second removal. Older seals usually function quite well when left undisturbed, but once the first motion shaft is pulled the slightest bit upwards, the old hardened seal cracks and you are back to square one -- engine removal.

It is actually quite a simple procedure to replace a seal. First remove the clevis pin from the throw out arm and slide the boot over the arm. Remove the clutch arm pivot bolt and remove from the bell housing. Remove the securing

nuts and washers from the perimeter of the front plate and withdraw the plate. Drive the old seal out and replace with a new one, #9.



This is also a good time to check the end thrust in the first motion shaft and replace the necessary shims. These can be a little difficult to keep located while replacing the plate #8, but a little grease will keep them in place. Renew the gasket #10.

Donald Graham
Walnut Creek California

ENGINE LONGEVITY Mine is a 1973 MGB/GT which I bought in Sacramento California secondhand for \$2400 with just over 71,000 miles on it in 1977. Since I brought it back north with me to New York it stays in the garage during winters but now has in excess of 124,000 miles. The "major" work only includes a valve job and a new clutch. I attribute this mileage to the oil cooler that came on the car, the use of Castrol oil, and the fact that the majority of these miles were put on by interstate or highway driving. It's been cross-country twice (complete trips) and it's been up and down the east now several times. While driving it seems to run smoothest at about 3000 rpm which is 65-67 mph.

Michael Hutchinson 82-3050
Rome New York

BATTERY REPLACEMENT This winter we bought a Plymouth Horizon (in our climate one needs another car for winter -- road salt eats cars alive here), and we discovered that the 12 volt battery from the Horizon will fit very nicely into one of the battery holders of the MGB! So -- Morris now has a Sears 12 volt Diehard which is working out quite nicely. The standard size battery is 21 in the Plymouth Horizon, Dodge Omni, and my MGB. Other members may want to make this change in their batteries also. It is cheaper and more convenient.

Jan Sander 79-939
Jeffersonville Vermont

SHOCK OIL For several years I have seen recommendations in the Quarterly, from other members, that the shock absorbers be drained and refilled with ATF (automatic transmission fluid) with sealer. I believe a better solution would be motorcycle fork oil with a sealer. After all, motorcycle forks are just long shocks. After replacing the seals in my rear shock absorbers I refilled the shocks with 15 weight motorcycle fork oil containing a seal sweller and an anti-foam additive. The particular fluid is PJ1 but I imagine many new fork oils contain these additives.

Chuck Genrich 76-155
Annandale Virginia

PLASTIC FILLER CAP BL did a nasty thing to my 1977 Midget by putting a plastic filler cap on the cooling system. I never had a problem until one day it BLEW its top off leaving its lower

PERFORMANCE AND UPKEEP HINTS (Con't)

half, consisting of a threaded ring, in the filler hole. Evidently JRT is aware of the problem because the replacement I got was BRASS. I've seen other Midgets with the same problem so it might be wise to replace it BEFORE it happens (If it happens before you replace it and you are stranded, a temporary EMERGENCY replacement can be made with one of the "self threading" oil drain plugs. Get one that will thread into what is left of the original cap and allow you to change it with the proper brass one later.

John Miles 82-3048
Montclair California

CATALYTIC CONVERTOR REPLACEMENT I replaced the catalytic convertor with a Walker pipe and this seems to have made a great difference -- more power and better acceleration. I also added a can of Moly-Kote at the same time, so I can't tell if this also helped. The replacement of the convertor includes:

- Walker pipe #44657 (1975 MGB non California)
- 3 5/16 studs, coarse on one end, fine on the other
- 3 5/16 flat washers and locknuts (not nyloc)
- 1 New manifold gasket
- 1 tube anti-seize compound
- 1 Exhaust sleeve 1 3/4" ID by 6" long
- 2 1 7/8" exhaust clamps

It is necessary to disconnect the exhaust from the convertor, remove the manifold from the cylinder head, remove the convertor from the manifold, then replace the manifold with a new gasket. A magnet and long screwdriver will help to get the manifold nuts started on their studs behind the carb!

Then position the new exhaust pipe, cut off the front portion of the old pipe flush with the end of the new pipe -- DON'T cut it too short!!; then position the Walker pipe in the manifold using the "olive" which was fitted between the convertor and old front pipe. Some anti-seize on the nuts and bolts will help make a future replacement much easier.

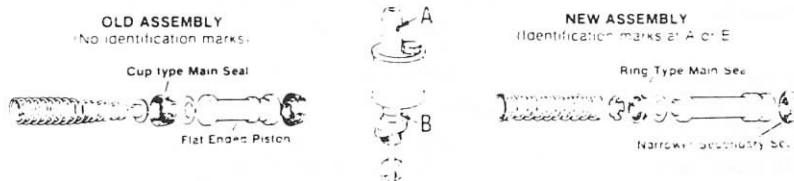
David Stein 81-2180
Clayton Missouri

CLUTCH MASTER CYLINDERS Three types of clutch master cylinders are used in the US MGBs:

1963 - 1967	112625 cyl	KL 71534 kit
to 386 600	4223-105cyl	KL 71534 kit
fm 386 601	4223-105cyl*	SS 960 kit
	or	BHM 7127 kit (JRT)

* The new cylinders change in internals and carry an identifying ring #B in illustration.

IN FUTURE ALL SERVICE REPLACEMENT MASTER CYLINDERS WILL BE TO THE NEW DESIGN.



Also, I have met several long term MGB owners, a number of whom had changed their own clutch units, who were not aware of the spigot bushing in the end of the crankshaft. I found one manual showed this bush and even identified it in the exploded diagram of the engine assy but nowhere did it mention anything about this

bushing, its use, its reason-for-being, how/when to inspect and/or change. Another manual neither showed it or mentioned it.

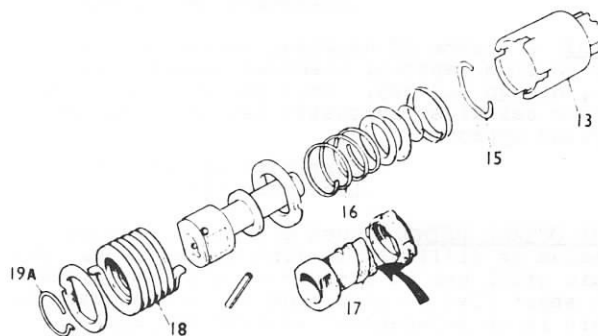
A proper clutch replacement demands that not only are the pressure plate, disc, and release bearing changed, but that the spigot bush be examined also. While in the area, it's good to replace the release bearing fork bolt and bushing:

Spigot bush	22H 1416
Fork bolt	11G 3195
Fork bush	11G 3196

CPT R B Mason 81-2511
Leaflort South Carolina

JAMMED STARTER In your response to Brad Taylor 82-2899 concerning a sticking starter, you failed to mention a possibility of the bendix being faulty.

Before pulling the engine, inspect the internal worm gearing of the bendix throw-out assembly.



In two cases (both 66's) I have seen this worm thread worn down so the female part rides up on the three starting points of the internal gear when it tries to return from the engagement position. The solution is replacement or careful sharpening of the starting points with a handheld grinder. This problem has to be detected by internal inspection, as it is very hard to get it to hang up on the bench.

Complete the wear process by grinding the original point flat to the cylinder surface. Then effect new points that engage the female. This lightly shortens the length of the thread but causes no problems.

Vernon Jones 81-2556
Norman Oklahoma

ROAD SPEED VIBRATIONS If anyone has ever noticed a slight vibration from your MGB at high road speeds, don't automatically assume that the problem is in the wheel balance or suspension.

PERFORMANCE AND UPKEEP HINTS (Con't)

turn into unmitigated goo under prolonged exposure to motor oil!

Here is what can happen: From a leak in the rear seal or side covers, oil will work its way rearward until it eventually begins to cover the rear engine support and motor mounts. The rubber in these mounts will begin to decompose almost immediately, and will collapse into a mushy heap in about a year's time. If the rear mounts collapse, a vibration will result which will cause nasty things to happen, such as exhaust welds to break, crossmembers and supports to wear, gearbox wear (from vibration), and anything else under the car that is not meant to withstand inordinate amounts of shaking, including the U-joints.

Make a point of getting under your MG every so often just to see what's going on!

Jim Ireland 77-327
Sacramento California

PAINT A source of original paint for the MGs is from Imperial Chemical Industries, Ltd, Slough SL2 5D5. They produce Belco Car Colour cellulose synthetic lacquer, British Leyland approved.

Charlotte Rivers 81-2192
Lancaster Ohio

HIGH OCTANE PETROL Good old Ethyl, leaded premium is difficult to find around here. One chain still has it at some of their stations, but about five minutes from AMGBA headquarters there is an independent station who sells nothing BUT premium, unleaded, or LEADED! The owner has some older cars that need high octane leaded fuel, so he took matters into his own hands and opened up Burkovec's at Kirchoff and Plum Grove Roads in Palatine, IL. One can usually find British cars of all kinds filling up with petrol at Burkovec's. All of us at National Headquarters are now gassing up our MGs there. They appreciate the business from British car owners passing the "good word" about their good petrol. It says 92 octane on the pump, as that is what their distributor guarantees. But Burkovec's has had their leaded premium tested at 96 octane on a consistent basis! I also have another British car, which is European Market specification, as opposed to USA export spec, and this car requires 102 octane fuel! Finally, after switching to Burkovec's, this car is really running right. As for the MG, it always appreciated good petrol when it was available. It does again, now. Although the station is a one station independent operation, VISA and MasterCard are accepted there, for the "plastic money" gasoline buyers. So, when in Chicago....!

Steve Glochowsky 76-171
Chicago Illinois

PLASTIC CLEANERS I would like to add my endorsement of Meguir's plastic cleaners for use on the convertible rear windows. The scratch-removing solution can be followed up with the glazing solution (both are available from MG Mitten and elsewhere) to obtain an excellent "like new" finish. It's also good for those plastic instrument faces.

Tim Allen 81-2076
Dallas Texas

OCTANE INFORMATION Several members have provided copies of the excellent article in the "Technical Correspondence" section of the July 1981 issue of "Road and Track." We cannot reprint the article but urge you to find it and read it!

SOFT TOP WINDOW PROTECTION I use a clean Turkish towel over the plastic window when putting the top down -- this will protect the window from scratches and sometimes from tight folded corners.

David Stein 81-2180
Clayton Missouri

BRAKE BLEEDING In my never ceasing searching to make dirty jobs easier, I have purchased an Eezi-Bleed kit from the MG Owners' Club. What a lovely device from bleeding hydraulic systems! The kit contains a bleed bottle and a selection of adaptor caps for various master cylinders. Here's the way it works:

The bleed bottle has two lines running into it, one going all the way to the bottom of the bottle. After selecting the appropriate adaptor cap, you attach the cap to the line that runs to the bottom of the bleed bottle, and then screw the adaptor cap to your master cylinder. You now fill the bottle with brake fluid (it holds about two pints). The second line is now attached to your spare tyre for an air pressure source. In moments, your entire brake or clutch system is pressurized eliminating the need for a second person to pump the pedals. All you need to do, is walk around the car and crack the bleed nipples at will with a tube and a glass jar; the whole process is automatic. Bloody marvelous! The Eezi-Bleed kit is made by Gunson's of England, who also makes the Color-Tune kits.

Gunson's
Agrihold House
40 Warton Road
Stratford, London E15 2JU
ENGLAND

Jim Ireland 77-327
Sacramento California

The "SPECIAL" MGs There have been several limited runs of "special" MGs: the 1967 MGE/GT First Anniversary Specials (a run of 1000); the 1974 MGB and MGE/GTs (a run of 7,517); the 1975 "Anniversary" MGBs (with the gold octagonal decal on the dash and a gold horn push); the 1980 "Limited Editions"; and several more. Several members are keeping track of cars within these groups and can sometimes provide more information concerning the models than myself, the Registraar, the club, or even BL Heritage!

If you would be interested in helping us find out more about these specific models, please contact the members listed below, or if there is no "contact" -- volunteer to help us out!

1967 First Anniversary 1967 MGE/GTs

Joe Collins
PO Box C
Brownstown, Indiana 47220

1974 MGB and MGE/GTs

Steve Harding #79-824
1913-D Darby Road
Havertown PA 19083

1975 Anniversary MGBs: No contact

1980 Limited Editions: No contact

To help out all of our work with the registrations, we urge you to register your MG with Floyd Garren, AMGBA Registrar; and to complete the SURVEY in this technical section and return it to Caroline Robinson, Grand Rapids.

MEMBERS' RECOMMENDATIONS

This is the third listing of the shops and mechanics recommended by AMGBA members. We hope that you can use this list if you are moving to a new location and have lost your regular mechanic, if you are travelling and need some assistance -- or if you've been frustrated at finding a good shop locally. Remember, the AMGBA CANNOT ENDORSE any shop, mechanic, or parts supplier! But with this listing of members' recommendations, you at least have a place to start.

We have included a questionnaire in this Quarterly which we hope you will take the time to complete and return to us. On the reverse side, we've asked for your recommendation so that our listing continues to expand. Please help us and your fellow members by completing the survey and sending it to us!

CALIFORNIA

Paul Kile (private)
702 Adeline Place
Davis CA
916 758 5080 by Jim Ireland 77-327

Corey Hogue (private)
9024 Central Avenue
Orangeville CA
916 988 2448 by Jim Ireland 77-327

Steve Bonner (private)
4750 7th Avenue
Sacramento CA
916 453 8662 by Jim Ireland 77-327

Jim Ireland (private)
3940 Pasadena Avenue
Sacramento CA
916 489 6013 by Jim Ireland 77-327

Tower Foreign Auto Repair
Russ Steward
2544 Tower Avenue
Sacramento, CA
916 481 4263 by Jim Ireland 77-327

Mike Hall
John Bull Auto Repair
199A Mayhew Way
Walnut Creek CA 94596
by Donald Graham

British Motor Service
251 High Street
Palo Alto CA 94301
415 329 1440 by Bryan Kunc 80-1163

Norm Westergard (private)
9626 Knickers Court
Sacramento CA 95827
916 366 6292 by Jim Ireland 77-327

CONNECTICUT

Imported and Domestic
Washington Blvd
Stamford CT
by Christopher Parente 81-2115

Russo's Shell
High Ridge Road
Stamford CT
by Christopher Parente 81-2115

Hayestown Foreign Cars
East Hayestown Road
Danbury CT 06810
203 743 9601 by Nino Catalano 80-1375

FLORIDA

London-Tokyo Engineering
2304 North Pace Blvd
Pensacola FL 32505
904 432 2617 by Weldon Corbitt 80-1339

ILLINOIS

Sawyer Motor Imports
DeKalb IL
by Ken Bray 81-2155

Best Foreign Car Parts
Silvas IL
by Ken Bray 81-2155

Doty's British Spares
117 East Smith Street
Benton IL 62812
618 438 0011 by Steve Glochowsky 76-171

INDIANA

Pepper's Imports
18183 State Road 23
South Bend IN 56637
219 272 8678 by Neil and Pam Plouhar

Import Repair and Parts
220 Lincolnway East
Mishawaka IN 46544
219 255 7284

MASSACHUSETTS

Jeff Jones, Prop
Racetune Engineering
1 Griggs Street
Allston MA
617 566 8305 by Alan and Sharon Glickman
79-0976

MICHIGAN

Brooks Imported Cars
Lansing, MI by Walter Lingo 80-1609

University Motors
614 Eastern Avenue SE
Grand Rapids MI 49503
616 245 2141 by John Twist 78-415

Engel Imports
618 East Crosstown Parkway
Kalamazoo MI
616 343 8022 by Edwin Vann 81-1804

Lefebvre Automotive
3848 Niles Road
St Joseph MI
616 429 7213 by Edwin Vann 81-1804

Whetstone's Garage
452 West Ferry
Berrien Springs MI 49103
616 471 5121 by John Ulloth 81-2126

Michigan Imported Cars
350 South Newburgh Road
Westland MI
313 729 1010 by Karl Agee 81-2348

MEMBERS' RECOMMENDATIONS (Michigan Con't)

Falvey Motors
Troy Motor Mall
Troy MI
313 643 7870 by Karl Agee 81-2348

Overseas Motors Inc
32400 Plymouth Road
Livonia MI
313 427 4840 by Karl Agee 81-2348

Joe Dwyer Inc
Grand River at 7 Mile
Detroit MI
313 537 2292 by Karl Agee 81-2348

Key Automotive
20340 Farmington Road
Livonia MI
313 478 2224 by Karl Agee 81-2348

MISSOURI

Imparts Ltd
2535 South Brentwood Blvd
St Louis MO 63144
314 962 0810 by David Stein 81-2180

British Car Center
7577 Loive Street Road
University City MO 63130
314 726 4911 by David Stein 81-2180

NEW JERSEY

VCI Inc
Route 46 East
Dover NJ
201 366 7800 by Karl Agee 81-2348

Imported Machine and Auto
Rte 46
Rockaway NJ
201 366 6388 by Karl Agee 81-2348

Kallaye Auto Sales
Route 17 North
Paramus NJ by Karl Agee 81-2348

Main Motors 134 Main S
134 Main Street
Madison NJ
201 377 0240 by Karl Agee 81-2348

C&M Motors
Route 10
Denville NJ
201 361 0017 by Karl Agee 81-2348

NEW YORK

Jimmy Lesniewski
Tony's Texaco
290 Main Street
Elip NY 11751
516 581 9636 by Stephanie Cole 81-2338

Newport's Motorcar Garage Inc
1 Maplewood Avenue
Altany NY 12205
518 438 0035 by Harold Moore 81-2617

Briarcliff Classic & Imported Car Service
50 Woodside Avenue
Briarcliff Manor, NY 10510
914 762 1200 by Nino Catalano 80-1375

NORTH CAROLINA

Dowell's Auto Parts
2411 West Front Street
Statesville NC 28677
704 873 1131 by O C Stonestreet III 82-2837

Melson Enterprises Inc
PO Box 37
Barium Springs NC 28010
704 528 5459 by O C Stonestreet III 82-2837

OHIO

Dale Geist
2835 Bunty Station Road
Delaware OH 43015
614 369 5719 by Bob Levanduski 80-1076

Lucks Auto Repair
19985 Detroit
Rocky River OH 44116
216 331 1192/7416 by Al Amer 81-2217

Cleveland Tire
1850 Carnegie Avenue
Cleveland OH 44115
216 861 7510 by Craig Peck 76-060

Park Auto Repair
2163 Hamilton Avenue
Cleveland OH 44114
216 241 7390 by Craig Peck 76-060

World Auto Parts Inc
Foreign Auto Parts Warehouse
2230 East 9th Street
Cleveland OH 44115
216 781 8418 by Craig Peck 76-060

Dave Mack Automotive
23126 Lakeland Blvd
Euclid Ohio 44132
216 731 2448 by Craig Peck 76-060

Transworld
1500 West 117th Street
Lakewood OH 44107
216 521 7888 by Craig Peck 76-060

Segna Motors
2265 West Dublin-Granville Road
Columbus OH 43085
614 885 6206 by Charlotte Rivers 81-2192

The Winner's Circle
19144 Detroit Road
Rocky River OH 44116
216 333 4666 by Craig Peck 76-060

OKLAHOMA

British Motors
Oklahoma City by Jeff Freund 81-2336

ONTARIO

Norm Stewart
Norm's Texaco Service
267 Indian Road
Sarnia Ontario N7T 3W5
344 0717 by John Frost 81-2005

OREGON

Foreign Parts Postively
2285 NW Estaview Circle
Corvallis OR 97330
752 1293 by Gerry Ansell

MEMBERS' RECOMMENDATIONS (Oregon Con't)

Faspec British Cars&Parts
606 SE Madison
Portland OR 97214
503 232 1232 by Douglas McDonald 81-2210

NAPA Stores Nationwide
by Douglas McDonald 81-2210

Bill Yeates
The Import Garage
1815 SE 50th
Portland OR 97215
503 235 5951 by Greg Kocher 80-1779

Bob Macharione
Sports Car Shop
606 Blair Blvd
Eugene OR 97402
by Larry Standifer 79-848

PENNSYLVANIA

John Weir (AMGBA member/private)
3219 Kilburn Road
Philadelphia PA 19114
by Steve Harding

Britspeed (Jim Green)
Turwood Road
Willow Grove PA
by Steve Harding

Dave's Auto Center
40 Noeland Avenue
Pennel PA 19047
215 757 7450 by John Weir 77-353

Overseas Motor Works
1501 Fairmount Avenue
Philadelphia PA
215 763 2300 by John Weir 77-353

Dave Kunte (AMGBA member/private)
RD2 Box 127
Rome PA 18857
717 247 2079
by Dave Kunte 78-526

TENNESSEE

John Childress
British Motorcars Ltd
Concord TN
966 7777 by Wilson Harpe 82-2908

VIRGINIA

R&R Auto Service
1524 Springhill Road
McLean VA 22102
703-790-1077 by Francis Paris 81-2562

John Paine (private)
519 Great Falls Street
Falls Church VA 22046
703-536-8062 by Mark Courtney 82-3053

WISCONSIN

Bernard Pucci
Formula Automotive Engineering
5419 16th Avenue
Kenosha WI 53140
414 652 4953 by Gene Willems 82-2845

A NINE on the Oooh SCALE

by Skip Finley 81-2538 Rockville Center NY

I don't know about other AMGBA members and MGB enthusiasts, but when it comes to automotive mechanics, I'm helpless. In reading the AMGBA Technical Section, I probably get as much out of it as you would reading up on mathematical linguistics. When it comes right down to fixing the car, I can't. Of course, you can imagine my embarrassment in view of the circumstance in even telling you this but that's why I thought I'd explain what I can do that just about anyone can do -- even if (like me) you think a ring is something that comes with a diamond attached and goes on one's finger.

First, some history. I've owned my 1970 MGB/GT since April, 1975 and along with 44,000 original miles, you can eat off of this car because I take out my mechanical frustration by keeping it clean. The sum total of my automotive achievement has included changing wheels and replacing the air filter (once). I add brake fluid and oil, change fuses and license plates, period. I'm afraid to change the oil or spark plugs myself as I know I'll destroy something. I can take one or two parts off the engine with the manual and some help from a friend.

Not wanting you to think me a totally incompetent enthusiast however, I can drive it. In fact, I could possibly give Bob Bondurant or Burt Reynolds a lesson or two and have the tickets to prove it (Safety Fast! Right?). And I'm a purist too. The emission control stuff is off, I had an AM/FM stereo put in and I put on a new shift knob (myself!). Otherwise the car is just like it was at Abingdon. Back in November, 1976 I had it tuned up and parked it in my garage. Thirty-five miles later, in June 1981, I had it tuned again by the same guy who cursed me out and demanded I sell it to him. Why? Like a dolt I thought I'd keep the miles off it -- in those 4½ years, the brakes, clutch, and entire exhaust system rotted -- and the mechanic didn't think I deserved to own the car. Which is how I found out that 1970 MGB/GT's were real cars, meant to be driven and not encased in glass. That lesson cost me \$1200 and I've driven it about 4,000 miles since then, hard but sparingly because when my 11 year old daughter comes of age I plan to give it to her (On sunny Sundays in August).

She says the car gets a 9 on the Oooh scale -- the one where you pull up and everyone says, "Oooh!" (Only TD's, TF's and Ferrari's get a 10, apparently). So, along with expensive mechanical excellence, few electrical problems, no rust, a mediocre paint job (but professionally done wax&polish -- can't do that either), here are some things I've done to make my pretty baby prettier.

Simoniz has some "Chrome Cleaner" that not only polishes bumpers but made my antenna like new and takes the pits and bumps from the chrome strips around the windows. It's quick, easy and works great.

If you don't know it, your radiator top and bottom is brass under that black paint. With the car cold, I put some Red Devil "Paint and Varnish Remover" (any brand will do it) on the black paint, let it sit, scraped it off with a wood paint stirring stick (metal will scratch the brass finish) and used steel wool

Oooh Scale (Con't)

to clean off the balance. Then I used Brasso to polish it and the result is simply gorgeous. I did the same thing to the oil filter cover with left an anodized aluminum finish (like your carburetors) and is equally beautiful. I'm in the process of doing all exposed engine parts like this -- brass, aluminum, black -- and it's really stunning when a gas station type checks the oil. If you want to avoid constant polishing, spray it with silicone.

The best tip is for those impossible wire wheels. My consenting adult was watching me labor away at the wheels once with all sorts of ridiculous chemicals, cleaners and the family toothbrushes. I let her do a wheel and guess what she came outside with? A pail of ammonia and water, a rag and a shoestring! Incredible, unbelievable, stupendous but with a 69 cent bottle of ammonia she got that wheel cleaner in half the time with no caught fingers or broken fingernails! Two things though -- if your wheels are disgustingly caked with oil, grease and grime, spray them with engine Gunk first and spray them off with water. Repeat this and scrape off the excess with a wooden stick and then use the ammonia -- you won't believe it. Second, whatever you do, don't use the mag wheel type cleaners or you'll stain them forever. MG wire wheels are steel with a coating -- not magnesium or alloys! Obviously the shoe string (a fat one from a sneaker) is for the bases of the spokes where fingers don't go. The ammonia also cleans your windows far better than Windex, incidentally.

It seems that MG's were built to rust. To prevent a little and clean it up, I jacked up the car, removed the wheels and sprayed the wheel wells with the hose. Then I scraped off the excess garbage with a wire brush (lightly now!) and washed them out with ammonia. Voila! Looked with new! Oil, road grease and tar hold the road dirt which gets wet and rusts you out from inside. After the wells were clean, I sprayed them lightly with 3 in 1 Oil and then silicone so now the dirt and grime doesn't stick and it's easier to clean. I've also used the ammonia in the same way for the spare tire boot area and in fact, all over the car.

Use Gunk to clean the caked up grease from your engine block as the car seems to run cooler without the thick goopy mess on it.

Finally, it like me, you're an airhead when it comes to mechanical work there is plenty you can do to keep your MG clean, inside and out. And it's OK with me if you don't because I love seeing dirty old rusted out GT's -- I figure that they'll hit the MGB/GT graveyard sooner and my baby will be worth another 50 bucks!

FASCINATION

by Orie Nelson 82-2938 Rockford IL

It all started with a fascination. I had been attracted for a long time by her sleek lines and full curves. Her sassy disposition and smart performance delighted me. Her reputation was somewhat clouded. I had heard things about her that to some would cause second thoughts. These rumors made me all the more eager to know her.

It was the Summer of 1974 that I finally did it. As often happens with an affair of this kind, it was spontaneous. I received a call from Motorsport of Fond du Lac, Wisconsin, on a Wednesday afternoon. He had just the MG

MGB, C, GT, LE & V8 OVERDRIVE WARNING LAMP



These new warning lamps give a clear visual indication—especially at night—whenever overdrive is selected. They will fit any MG with overdrive and match the existing 'Fasten Belts' warning lamps which are fitted to later MG's. Each assembly is supplied complete with a 12 volt bulb and fitting instructions.

Enquiries for trade and alternative legend requirements are welcome.



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FASCINATION (Con't)

I wanted in his showroom. I made the decision right then. By the weekend she was mine. The adjustment period, one to another, went smoothly right from the start. I can honestly say I have never known an automobile like her. She has been everything I ever dared hope she would be.

For the first few years, I drove her year around. The northern Wisconsin winters are cruel to any automobile. She never failed me regardless how far the mercury dipped below zero or how high the snow accumulated.

So far as a "fun car," for those of us who have owned MG's, I can add nothing as it would be like "preaching to the choir." All MG owners know all about the fun aspects. For those who have never owned an MG, I could not put into appropriate words, the joy of traveling across country, top down, wind blowing, experiencing the freedom of the open road in an MG.

With time, she started to show signs of age, as we all do. For the past four years I have been storing her, to protect her against the harsh winters and the Midwest road salt. Two years ago I began giving her a facelift. The English paint had not fared well in spite of or perhaps because of, the many waxings. I took her surface down to new metal and had professionally applied three paint jobs, each three months apart. At the same time the areas where road salt had taken its toll were addressed. No body putty was applied, only metal. Finished off with a new top and freshly done chrome, she regained her youthful appearance once again. The youthful appearance was only skin deep. After 78,000 miles there was work to be done beneath the glowing exterior to revive her youthful spirit and performance.

She was admitted to the shop on April first of this year and underwent major surgery. Some ongoing attention must still be attended to in the area of her suspension but it was felt that it would be good therapy for both she and myself to take care of this area in another phase.

(This has been excerpted from a letter Orrie Nelson wrote concerning his engine overhaul and the degreasing of his camshaft. -- JHT)

OVERDRIVE DISENGAGEMENT

by John Whiteley 80-1754 Spring City Tennessee

(In the many telephone calls I receive, there are always problems which seem to defy easy solution -- which is why I get the calls. When a problem is peculiar, I usually ask the caller to get back in touch, by phone or preferably by letter, to let me know how he fared and how the problem was solved. Actually, very few members do get back in touch. But John Whiteley has written to provide us with some needed information concerning the modern overdrive electrical systems. -- JHT)

The problem was that the overdrive would not engage when the car was cold, but would engage and stay engaged when the car was warmed up. As the problem persisted, the overdrive would disengage as the car was being driven down the road -- a heart stopping feeling, as it seemed as if the engine had let go!

The 1980 MGB was in the shop twice -- the first time they changed the gearbox oil, and the second time they cleaned and adjusted (with packing washers) the overdrive solenoid -- the one inside the unit. None of these operations worked.

Then I noticed that overdrive would engage and stay there if I pulled back on the gearshift lever while in fourth gear. In fact, I could control the overdrive by wiggling the lever. This made driving rather uncomfortable so I had the isolation switch on the gearbox changed. This is the switch on top of the gearbox, on the left hand side, that controls both overdrive and the TCSA switch on the 1980 Model.

This fix worked for about two weeks and 1,000 miles, but then the problem came back with a vengeance. I found that the cure was ADJUSTMENT of the isolation switch. That has worked for two months now, so I think that the problem is solved. Here's how it's done:

- 1) Support the front of the car on jackstands, high enough so you can work underneath.
- 2) Disconnect the exhaust system from the base of the catalytic converter, and from the strap holding it to the bracket between the engine and gearbox.
- 3) Place a hydraulic jack under the front of the bellhousing, with a piece of wood to act as a buffer between the jack and gearbox, and support the weight of the gearbox on the jack.
- 4) Remove the four bolts at the ends of the gearbox crossmember.
- 5) VERY CAREFULLY lower the gearbox (with the crossmember still attached) until the rear flange of the gearbox sits on the frame rail (a drop of about five inches). Be certain NOT to foul the exhaust system!
- 6) From inside the car, remove the gearshift boot (remove the gearshift knob first) and then remove the large plate over the gearbox.
- 7) Working through this opening, and using a long screwdriver as a drift, first remove the two wires from the switch, and then unscrew the switch. This is the hardest part of the operation. You can either look in and see the switch, or you can reach in and feel it, but you can't do both at the same time. Also, if the screwdriver slips the wrong way and you hammer it through the switch (as I did), you buy a new switch!
- 8) When the switch comes out, some packing washers will come out with it. These are quite important, as the switch is adjusted using them. Mine had two, one thin and one thick. You have to experiment with different combinations of washers until you find the combination that will give you overdrive in 4th gear only. Too little thickness will give you overdrive in all gears, including reverse (which can ruin the overdrive unit and/or gearbox) while too much thickness will not give you any overdrive at all. If you connect a test lamp across the switch terminals it should light only in fourth gear. For proper operation on my car, I only needed one tick washer, and I took out the thin one.
- 9) Reassembly is in reverse order of disassembly, being careful to mount the exhaust very tightly and under no great load or strain.

THE MG ROAD-TRAIN

by Adrian Tyndale 81-2509 Wimbledon England

(First published by the MGOC "Enjoying MG" England)

"The MGB makes driving an exciting sport. Like skiing, sky diving, surfing, try it."

THE MG ROAD-TRAIN (Con't)

"Stirling Moss shatters five records!
You can do it in an MG."

"Some day you'll settle down with a nice,
sensible family saloon. Some day."

And now, "Your best friend will hate you."

These are some of the MG advertising slogans which you must have all seen over the years. But what happens when we MG owners buy our skiing sky diving, and surfing equipment? What happens when we beloved owners marry and little MG enthusiasts appear? The owners are forced to part with their cherished toys because they are no longer practical. Alas, this is an obvious solution but fortunately not the only one.

Let me consider the particular problem of the MG owner with a family. Babies and young children themselves are quite small and can be seated or laid on the rear seat and luggage space respectively. This can extend the cars' practicability for several years. The real problem is all the ancillaries, like babies nappies and potty, etc and "Action Man," "Cindy Doll," and "Lego" for the older child. All these necessary items together with baggage and maybe a picnic or "kitchen sink" all occupy valuable space. Wouldn't it be great if we could put all these items into a trailer?

MG's were not manufactured with towing facilities, so this means that a towing bracket and ball has to be fitted to the rear of your car. The methods of fixing these brackets are different for the chrome and rubber bumpered models, but in each case it greatly strengthens the rear of the car without detracting from the excellent lines, as can be seen.



Having fitted your bracket and tow ball you can now consider the size and type of trailer and electrical wiring required. The Law (UK) helps you here, if you want to tow at up to 50 mph then the maximum gross weight of the trailer must not exceed the kerb weight of the car. In addition you must comply with the following:

- 1) An approved 50 mph plate must be fitted to the rear of the trailer.
- 2) The total gross weight of the trailer must be displayed on the nearside front of the trailer.
- 3) The kerbside weight of your car must be displayed on the front nearside of the car.

You may tow a heavier trailer or even two trailers but then you will be limited to 40 mph and 20 mph top speed respectively.

The kerbside weight of an MG Midget is just under a ton, the kerbside weight of an MGB/GT is a little over a ton, the exact weights

depend on specification. This information may be obtained from the drivers handbook (qv) together with the recommended maximum towing weight for your particular MG.



SHOWN IS THE 1974 MGB GT ROAD TRAIN

The unladen weight of the depicted trailer is less than two cwt and, therefore, is not required to have its own braking system. This together with the number of wheels and type of suspension are important features worth considering when purchasing or constructing a trailer. Full and up to date information on towing should be obtained from your local Government Bookshop to ensure that you are not infringing any Regulations.

The lighting and rear marking requirements of your trailer are further aspects to be examined. Two approved red triangular reflectors must be fitted at the rear of your trailer. The trailer number plate must be of an identical type to the towing vehicle and must be illuminated at night. Other necessary rear lights are two appropriately positioned, approved red lights; Two red brake lights, which must operate simultaneously with your car brake lights; One or two, correctly positioned, red, approved, rear fog lamps, which must not be connected to any brake circuit. Although not compulsory, white reversing lamp(s) may also be fitted. Direction indicators are the final electrical requirement. These must flash simultaneously with the towing vehicle (60 to 120 flashes per minute) and a visual display, indicating a trailer flasher bulb failure, must also be fitted to your car. Various trailer flasher kits are readily available which provide a dash panel or centre console warning lamp.

To achieve electrical continuity between your car and the trailer, it is recommended that an International Standards Organisation approved seven pin socket is fitted to the car close to the tow ball. These are normally supplied complete with instructions and will enable the seven pin plug fitted to the trailer to be connected to the car.

Now that the electrical requirements have been clarified, we can turn to the wheels (excuse the pun) and tyres. These should be fitted to proper suspension units and must have suitable and effective mudguards. Tyres must have more than 1mm of tread, also like your car, radial and crossply tyres must not be fitted to the same axle. There are also other tyre combinations between tow car and

trailer which must be avoided.

Your trailer is now ready for use but one important point to remember is the nose-weight. The trailer must be loaded so that the weight at the towing hitch does not exceed the car manufacturers recommended weight. For Midgets, MGBs, MGCs, and V8s this is 100 lbs. To ensure correct handling the trailer should ride level. So if your rear suspension is suspect then this must be rectified. There are (continue below)



The centre console shown is from a 1974 model year MGB/GT. The trailer direction indicator warning lamp is represented by a double headed green arrow. This only flashes when the trailer direction indicators are operating. As can be seen, this warning lamp forms part of a series of centre console warning lamps, details of which are outside the scope of this article.

(Continued from above)

numerous suspension aids which can be utilised, one of the simplest and I believe the best all round system is the "Aeon" auxiliary rubber springs. These may be used even if your car is not equipped for towing but just as a method of beefing up your rear suspension if you generally carry heavy loads. The "Aeon" auxiliary springs are made of moulded hollow rubber which has a progressively powerful cushioning effect. They are fitted in place of the standard MG bump stop and are available in a wide range of sizes.

Your completed ROAD TRAIN is now ready for service. There is no way that this or any other publication can tell you how to tow, as practise is the only way to learn this. The one thing that is difficult is reversing. The best solution for this is to find an empty car park and spend some time maneuvering the combination. You will soon find out how to coordinate both car and trailer.

Good luck, Enjoying MG!

FRONT DISC BRAKE PAD REPLACEMENT

BY John Weir 77-353 Philadelphia Pennsylvania
(Technical Chairman of the Philadelphia
AMGBA Chapter)

General Advice: The Jack --

The jack provided with your MGB/Midget should be saved for emergencies or concours

events. Repeated use will break it. Use a scissors jack or a light duty hydraulic jack for routine service.

NEVER work under your car when it is supported only by a jack. Set the car firmly on a pair of jack stands when you will be working under it.

Brake Fluid --

Brake fluid is a very effective paint remover -- be very careful with it.

Replacing the front disc brake pads:

- 1) Apply the hand brake, loosen the front wheel lug nuts or spinner, jack up the front of the car and set on jack stands. Remove the front wheels.
- 2) Inspect the pads -- if less than 1/16" of friction material is left, the pads should be replaced.
- 3) Press down on each retaining clip and remove each cotter pin, then remove the clips.
- 4) Remove each pad with a set of needle nose pliers.
- 5) Clean the recesses in which the pads fit.
- 6) Remove the cap from the hydraulic fluid reservoir and with a ball syringe, carefully remove some brake fluid. Note: If the syringe has been used for any other fluid, DO NOT REUSE the brake fluid withdrawn.
- 7) Press the pistons back into the calipers, one at a time. This can be done with a special clamp available from the dealer, or very carefully with a pair of large screwdrivers. As the piston is pushed into the caliper, the fluid in the reservoir will rise. Have someone watch the reservoir and if it appears that it will overflow, stop and remove more fluid.
- 8) Fit the new pad -- this combination of step seven and step eight will have to be repeated four times. Do one pad, then the next, then the next, etc. If all pads are removed at one time, and one piston is pushed back into the caliper, another piston may be pushed out too far to get it back into the bore! Do one at a time. Then replace the clips and cotter pins, using new clips and pins if available.
- 9) Replace the wheels and nuts or spinners and tighten them. Retighten after the car is lowered.
- 10) Press the brake pedal several times to adjust the brakes. The front brakes are self adjusting, and the first several strokes of the pedal may go right to the floor. Then top up the hydraulic fluid reservoir as needed.

MEMO from RENO

by Scott Freudenthaler 81-2230 Reno Nevada

Bonded rear tailpipe hangers: Can be made to last longer without transferring vibration by drilling two holes at opposite corners and using nyloc nuts and bolts. Be careful to just tighten the nut down to the plate. Do Not overtighten and compress the rubber.

Overdrive Units: For those of you who have O/D or are anticipating the addition of one -- it's a good idea to periodically check the switch to make certain it's functioning properly. Always mount this switch so it is engaged in the downward position (63-67).

MEMO from RENO (Con't)

Drive Shafts: They must always be kept very clean. If dirt and grime is allowed to build up, it will eventually cause vibration and later transmission problems. This is due to imbalance in the drive shaft caused by the dirt.

Drive Shaft Lengths: Lengths vary between: AHH 7488 (30 inches) early tourers, O/D box, banjo axle; later tourers, std box, tube axle. AHH 7487 (28.875 inches) early tourers, std box banjo axle. AHH 7486 (32 inches) later models, O/D box, tube axle.

So be certain to get the right one, and if you cannot find one then you should have one made up.

Gearbox Dip Stick: The seal usually leaks on the earlier models with the felt packing. The solution may be found in one of Mr Healey's 3000 dipsticks which has a rubber sealing ring, part AEH 3683. You must cut off 2 7/16" first and then remark the high and low levels accordingly. Use your old dip stick measurements for this purpose.

After Market Decarbonizing Sprays: "Cheap" trouble. They usually loosen the carbon in the head which then is free to find its way into places you do not need it -- such as the ring lands, scoring of the cylinder walls, bearings, valve seats, etc.

Oil Coolers: Back east and in any winter area, those of us with cars equipped with oil coolers would be wise to install a thermostatic control on the coolers. Excellent as they are in summer, they can cause viscosity drag and premature wear on the engine in winter. Sometimes the engine never runs at its operating temp. Even a protective covering of the cooler is better than nothing.

Disc Brakes: Your discs may not feel the brake pads coming into contact with them on the first dab of the pedal -- so when driving sportingly use the left foot to tap the pedal first. 'The Factory Man' said, "if nothing else it would help you to improve your braking points." The only point I'm getting at here is that the std brakes are already marginal. 'Don't Tailgate' especially with an alloy bonnet -- they fit so neatly under some else's bumper.

Chassis Modification: Roll stiffness: I know that the MGB has many sizes of anti sway bars other than the std 9/16" and the 5/8" found on the GT. But, did you know that 'before' you go out and buy the next biggest sway bar, as I did, you should first consider replacing the std rubber bushings with solid bearings on the frame mounting and at the suspension. This can have more effect on stiffness than a bigger diameter bar. A 0.80" bar with solid bushings gave the same effect as a 1.00" bar mounted with rubber. It may give satisfactory results at a considerably less expensive price.

Lowering the car does represent a good size job for most of us! In the front it does not have to become prohibitively expensive. The lower A Arm spring mounting plate bolts into the A Arm. It can be shimmed with the appropriate size spacers and this also makes it easier to alter ride height for various purposes.

At the rear leaf: Re-arching can be done to the leaves to suit any ride height change required. Always try to maintain the same ride height front and rear. The best spot to measure your ride height is the lower suspension pivot point on the frame. Weight transfer causes body roll -- NOT the other way around. One must keep in mind that the earlier MGBs

only had 5.0" ground clearance and remember for street use those speed bumps and angled driveways love your exhaust unit already!

It has been said that the MGB has been designed with roll oversteer characteristics. This is linked to the rear leaf springs having mounts at different heights. This causes one side of the axle housing to move forward and at the same time the other side tries to move backward as the car leans. For good handling, roll steer should be zero. This roll oversteer causes the rear wheels to steer away from the corner. Changing the shackle lengths changes roll steer characteristics. If you eliminate roll steer, you'll find your car more predictable in the fast corners.

LE or ST?

by Adrian Tyndale 81-2509 Wimbledon England

BL Special Tuning (ST) claim that the co-efficient of drag (C_d), of the MGB/GT can be reduced from 0.42 to 0.37 by fitting their aerodynamic pack. This comprises a black glass fibre front air dam, part number STR 0189, together with a rear door counted black glass fibre spoiler, part number STR 0190



The ST FRONT AIR DAM STR 0189



The ST REAR SPOILER STR 0190

Although the rear spoiler causes no operational problems, the front air dam can. This is more apparent on the chromed bumpered models as shown above. Fitting the ST air dam to the low ride height vehicles inhibits entry to certain driveways. Extra care must be taken not to go too close to high kerbs when

attempting a three point turn or similar manou-
ver. In general, the driver must be very
aware that he or she has an air dam fitted.

In 1981 the MG Car Company marketed one
thousand final and limited edition (LE) ver-
sions of the MGB and GT models. Each of these
was fitted with a black flexible plastic front
spoiler, part number BHH 2682. Unlike the ST
air dam, the LE spoiler fixes directly to the
existing front fairing which simplifies the
installation. Being made of flexible plastic
enables it to take a certain amount of punish-
ment on impact before any serious and permanent
damage is inflicted. In addition, when fitted
to the chromed bumper models, it allows a
greater ground clearance. I could be argued
that the effectiveness of the spoiler is re-
duced because more air is allowed to pass be-
neath the car causing buffeting and increased
drag, however, I know which version I prefer!



The LE FRONT SPOILER BHH 2682

MISCELLANEOUS RAMBLINGS

by John H Twist 78-415 Grand Rapids Michigan

Ben Munday of Kansas City invited Caroline
and myself to participate in the 1st Annual All
British Car Meet in Kansas City on Labor Day
Weekend. What a show! Probably properly descri-
bed as the largest gathering of British Cars in
the Midwest, there were 211 paid registrations
and about 235 British cars available to the
general public to view. Estimates of 5,000
spectators were used to describe the crowd,
and I mean CROWD of people who came from near
and far to view everything from an Austin America
to a Rolls Royce. There were Austins, Bentleys,
Singers, Morrisies, Triumphs, Morgans, Sunbeams,
but the largest single group participating, of
course, was the MGs! We met many of the MG
owners from the Kansas City area, and spent
a great evening with Ben and Steve Glochowsky
and Diana Thornton (they came from Chicago for
the event). I would certainly urge all MG
owners to watch for this event next year, as
it will easily grow into one of the largest
British events anywhere!

Later in the Fall, we attended the Regional
GT hosted by the Michigan NAMGAR group in Holland,
Michigan. Although the show was mostly MGAs,
Dave Zyp from Ohio pulled his small trailer
filled with MG goodies with his MGB/GT.

We wanted very much to attend the
Midwest Regional at Abingdon, and certainly
will next year -- but shop duties kept us in
the Grand Rapids area. There were 45 MGs

attending the Abingdon Regional, and the entire
city played host to a grateful MG crowd.

In early October, we drove the MGA to
Cleveland to attend the Emerald Necklace's
Color Tour, hosted and organized by Craig and
Sue Peck, and Brad Burland and Mary Jane Trapp.
It was 300 miles to the event, then a fast
300 miles of colorful, country driving, and
a 300 mile trip home.

We're looking forward to next year's
activities, and we wish we could attend each
one!

Greg Glassner of the Emerald Necklace
Chapter sent up an interesting note concerning
a Leyland Tractor which BL is marketing now
in the USA. Although it is available in either
gasoline or diesel models, the petrol engine
is the same engine used in my MGA (the com-
pression is 7.2:1 rather than the 9.0:1 in
the sports versions of the 1622 engine).

In addition to writing the technical
section for the Quarterly, several other MG
publications use my material also. Both the
major MG magazines (private) "MG Magazine"
and "Abingdon Classics" use material which
I prepare for them. Also, an advertising
newsletter "Sport and GT Market" carries some
articles I'm doing. On a couple of occasions
I've seen this information copied from the
various publications for use in club newslet-
ters, usually xeroxed and included as a por-
tion of the technical section. Remember that
these publications are private, and it's
always best to receive permission from the
publisher for reprinting the material. Items
copied from the Quarterly are for the use of
members and clubs, and it's OK with myself
and Steve to use this material as often as
you wish. But -- please contact the editors
of these other magazines prior to reprinting
technical material. The rule of thumb is
that reprinting the information is fine with
the publishers, as long as you include sub-
scription information about the publication
you are copying from. But please contact them
before you go to print!

The MG Metro is continuing to create a
splash in the UK market! It's now offered in
a hotted up version, the MG Metro Turbo. Fac-
tory sales literature claims a 93bhp at 6130
rpm and a top speed of 112mph. It'll do 0 -
60 in 9.9 seconds. This makes it the fastest
MG saloon ever offered. We're all waiting for
information regarding the turbo -- can it be
retrofitted to the 1275 Midgets? The mileage
figures for the MG Metro Turbo are very high
too -- 34.4 mpg city and 50.3 mpg at 56 mph.
Remember that the British gallon is still about
1/4 great than ours -- even still the figures
are wonderful.

The Metro is offered under several dif-
ferent badges, and is available in different
versions: City, Standard, L, HLE, 1.3S, 1.3
Automatic, MG, MG Turbo, and VandenPlas. The
price of the standard MG model is close to
£ 5,000 which means that it would sell here
for about \$8,000. One small article in the
"Wall Street Journal" suggested that JRT might
introduce this model into the US -- but so
far, no official word.

The power plant is almost the same as
the Mini or Austin America -- for that matter
the MG 1100/1300, yet changes are made in the
cylinder head design to allow a much higher
compression.

The AMGBA fared very well in the "Start
Your Engines" technical contest. Three tips
were selected and we're now working out our
"win" with the firm. More details next time.

We have an open invitation to all AMGBA
members who are in Grand Rapids. Stop by!

THE MGB DRIVER'S HANDBOOKS

PART NUMBER		NUFFIELD NUMBERS			LANGUAGE	DESCRIPTION
AKD 3258	29/29	(41184)	6/62	11,191	English	First Edition
AKD 3258 A						
AKD 3258 B	29/29	(50083)	5/63	17,150	English	
AKD 3666						
AKD 3666 A					French	MGB Manuel de Conducteur
AKD 3666 B	29/126	(176F)	10/66	1,945	German	MGB & MGB/GT GHN5/GHD5
AKD 3700					English	
AKD 3900		(52418)	8/63	19,600	English	
AKD 3900 A	29/29	(55592)	2/64	19,500	English	
AKD 3900 B	29/29	(62315)	12/64	23,550	English	
AKD 3900 C	29/29	(67031)	7/65	15,250	English	
AKD 3900 C/1	29/29	(68567)	10/65	6,500	English	GT Supplement for AKD 3900C
AKD 3900 D	29/29	(72543)	5/66	14,512	English	
AKD 3900 E	29/29	(2050)	10/66	21m	English	
AKD 3900 F						
AKD 3900 G						
AKD 3900 H	29/29	(8856)	9/67	5,014	English	MGB (English)
AKD 3900 J	29/29	(81542)	3/71	2,003	English	MGB Special Tuning Booklet
AKD 4034						
AKD 4034/1	25/9	(53610)	10/63	5m	English	
AKD 4034 B	25/9	(57580)	3/64	2,500	English	
AKD 4034 C					English	
AKD 4034 D					English	
AKD 4034 E	25/9	(7675)	7/67	2,500	English	
AKD 4034 F					English	
AKD 4034 G					English	MGB Tourer & GT Special Tuning
AKD 4034 H	25/9	(81476)	3/71	3,000	English	
AKD 4034 J						
AKD 4034 K	25/9	(87961)	10/74	1,000	English	
AKD 4034 L	25/9	(90275)	12/75	9,000	English	
AKD 4109					Danish	GHN3/GHD3
AKD 4129					Swedish	GHN3/GHD3
AKD 4163					English	
AKD 4958					English	
AKD 7059	29/175	(8621)	11/67	6,979	English	MGB Tourer & GT GHN4/GHD4
AKD 7059 A	29/175	(11432)	2/68	9,104	English	
AKD 7059 B	29/175	(15392)	6/68	10,515	English	GHN4/GHD4 USA
AKD 7059 C	29/175	(19073)	11/68	11,105	English	GHN4/GHD4
AKD 7059 D	29/175	(23272)	6/69	11,715	English	GHN4/GHD4
AKD 7059 E	29/175	(28087)	1/70	13,515	English	GHN 50A/GHD 50A CANADA
AKD 7059 7th	29/175	(80312)	5/70	13,500	English	GHN4/GHD4 and GHN5/GHD5
AKD 7090	5/29	(11257)			English	Errata use w/AKD 4958 and AKD 7059
AKD 7101					German	GHN5/GHD5 Austria/Switzerland only
AKD 7110					Swedish	GHN4/GHD4
AKD 7162	5/157M	(14604)			English	Addendum to AKD 7059 B
AKD 7198	29/29	(16462)	9/68	21,355	English	Supplement to AKD 4991A and AKD 7059B
AKD 7278					Swedish	GHN4/GHD4 with Safety Regulations
AKD 7417					Danish	GHN5/GHD5
AKD 7418					Dutch	GHN5/GHD5
AKD 7419					French	GHN5/GHD5
AKD 7421					Italian	GHN5/GHD5
AKD 7571					German	
AKD 7571 2nd	29/175	(82409)	12/71	250	German	GHN4/GHD4 und GHN5/GHD5
AKD 7571 3rd					German	
AKD 7571 4th					German	
AKD 7571 5th	29/175		2/76	550	German	CHN 5UD / GHD 5UD
AKD 7571/1					German	
AKD 7571/2	29/126			M	German	Nachtrag zur verwendung mit MGB Handbuch
AKD 7598					English	
AKD 7598 2nd					English	
AKD 7598 3rd	29/29	(82861)	3/72	11,000	English	GHN4/GHD4 and GHN5/GHD5
AKD 7598 4th					English	
AKD 7598 5th					English	
AKD 7598 6th					English	
AKD 7598 7th					English	
AKD 7598 8th		(90143)	12/75	1,915	English	GHN4/GHD4 and GHN5/GHD5
AKD 7600					English	
AKD 7633					Dutch	GHN5/GHD5 1971
AKD 7636					German	1971/1972 Austria/Switzerland only
AKD 7637					German	
AKD 7638					Spanish	GHN5/GHD5
AKD 7638/1					Spanish	Use with AKD 7638 for 1972
AKD 7881	29/175				English	(ENGLISH) GHN4/GHD4 and GHN5/GHD5

THE MGB DRIVER'S HANDBOOKS

<u>PART NUMBER</u>	<u>NUFFIELD NUMBER</u>				<u>LANGUAGE</u>	<u>DESCRIPTION</u>
AKD 7885					English	Use with AKD 7598 for 1972
AKD 7293					Dutch	Use with AKD 7633 for 1972
AKD 7938	29/175	(82340)	11/71	22,000	English	(ENGLISH) GHN 5UC and GHD 5UC
AKD 7938/1					English	Use with AKD 7938
AKD 8155	29/29	(83626)	10/72	12,500	English	(USA) GHN 5UD and GHD 5UD
AKD 8155 2nd	29/29	(84074)	12/72	12,500	English	(USA) GHN 5UD and GHD 5UD
AKD 8160					English	
AKD 8160 2nd	29/29	(84074)	12/72	12,500	English	(CANADA) GHN 5UD and GHD 5UD
AKD 8167	No numbers printed				English	Company name change
AKD 8423 1st	29/107	(84734)	5/73	1,000	English	(ENGLAND) V8 Model
AKD 8609	23/56	(51673)	9/73	6,000	English	Consumer information GHD 5UE
AKD 8638	22/29	(87236)	7/74	8,000	English	
AKD 8638 1st	29/29	(85567)	9/73	14,000	English	
AKD 8639	29/29	(85568)	9/73	1,000	English	(CANADA)
AKM 3286	29/29	(88313)	2/75	13,000	English	(USA) GHN 5UF
AKM 3287	29/29	(88313)	2/75	13,000	English	(CANADA) GHN 5UF
AKM 3407	29/29	(89080)	6/75		English	(USA) "Convertible" GHN 5UG
AKM 3407 2nd	29/29	(90428)	1/76	5,500	English	(USA) "Convertible" GHN 5UG
AKM 3408	29/29	(89356)	9/75	1,300	English	(CANADA) "Tourer" GHN 5UG
AKM 3507	29/29	(89901)	10/75	11,500	English	Supplement to AKM 3407 and AKM 3408
AKM 3521	29/29	(90974)	3/76	13,000	English	(USA) GHN 5UH 1977
AKM 3521 2nd	29/29	(91646)	6/76	14,000	English	(USA) GHN 5UH 1977
AKM 3521 3rd	29/29	(93823)	3/77	14,017	English	(USA) GHN 5UH 1977
AKM 3521/1	No numbers printed				English	Addendum for use with AKM 3521
AKM 3661	29/29	(90857)	5/76	5,000	English	(ENGLAND) GHN5 and GHD5
AKM 3704	23/56	(65552)	3/76	13,000	English	(USA) Consumer Information GHN 5UH
AKM 4052	29/29	(94606)	6/77	13,017	English	(USA) GHN 5UJ 1978
AKM 4052 2nd	29/29	(13187)	1/78	7,017	English	(USA) GHN 5UJ 1978
AKM 4053					English	
AKM 4081					English	(CANADA) GHN 5UJ 1978
AKM 4322					French	(CANADA) GHN 5UL 1979
AKM 4383	29/29	(14895)	3/78	11,017	English	(USA) GHN 5UL 1979
AKM 4383 2nd	No numbers printed				English	(USA) GHN 5UL 1979
AKM 4384	23/56	(14896)	3/78	11,010	English	(USA) Consumer Information use w/AKM 4383
AKM 4384 2nd	23/56	(17593)	8/78	10,005	English	(USA) Consumer Information use w/AKM 4383
AKM 4391	29/29	(14925)	3/78	517	English	(CANADA) GHN 5UL 1979
AKM 8098	No numbers printed				English	(USA) Hardbound book 1980

THE MGC DRIVER'S HANDBOOKS

AKD 4887					English	
AKD 4887 A	29/34	(12050)	2/68	3,514	English	
AKD 4887 B	29/34	(19750)	1/69	1,665	English	(ENGLAND)
AKD 4888	29/180	(12489)	8/68	314	Danish	
AKD 4894					Swedish	
AKD 4958	29/34	(8771)	12/67	4,230	English	

THE MIDGET DRIVER'S HANDBOOKS

AKD 3106					Swedish	
AKD 3235					French	
AKD 3898					English	
AKD 3898 A					English	
AKD 3898 B					English	
AKD 3898 C					English	
AKD 3898 D					English	
AKD 3898 E					English	
AKD 3898 F					English	Midget MKII (w/supplement for MKI)
AKD 5097					English	Special tuning for 1098cc
AKD 5098					English	Special tuning for 1275cc
AKD 7485					Spanish	Midget MKIII GAN5
AKD 7485/2					Spanish	Supplement to AKD 7485 for 1971/2 models
AKD 7489					French	Midget MKIII
AKD 7515					German	Midget MKIII GAN5
AKD 7596					English	
AKD 7596 2nd					English	
AKD 7596 3rd	29/27	(81791)	12/71	2,500	English	(ENGLAND) Midget MKIII GAN5
AKD 7596 4th					English	
AKD 7596 5th					English	
AKD 7596 6th	29/27	(85764)	10/73	3,000	English	Midget MKIII GAN5
AKD 7597	29/171	(80469)	6/70	6,568	English	(ENGLAND) Midget MKIII
AKD 7644					Dutch	Midget MKIII GAN5
AKD 7883	29/171	(81784)	7/71	7,500	English	(ENGLAND) Midget MKIII
AKD 7897					English	MKIII Supplement for 1972 use w/AKD 7596

THE MIDGET DRIVER'S HANDBOOKS

PART NUMBER			NUFFIELD NUMBERS			LANGUAGE	DESCRIPTION
AKD 7922						Dutch	Supplement for 1972 use w/AKD 7644
AKD 7937	29/27	(82341)	10/71	13m		English	(ENGLAND) Mark III GAN 5UC
AKD 8159						English	
AKD 8159 2nd	29/27	(84092)	11/72	3,500		English	(USA) Mark III GAN 5UD
AKD 8161						English	
AKD 8161 2nd	29/27	(84092)	11/72	3,500		English	(CANADA) Mark III GAN 5UD
AKD 8608						English	
AKD 8608 2nd	23/56	(54792)	2/74	6,300		English	(USA) Consumer Information GAN 5UE
AKD 8640						English	(USA) Mark III GAN 5UE
AKD 8640 2nd	29/27	(86451)	3/73	9,152		English	(USA) Mark III GAN 5UE
AKD 8641						English	(CANADA) GAN5 1974
AKM 3229						English	MK III GAN6 1975-1979
AKM 3260						English	(USA) GAN6 1975
AKM 3260 2nd	29/27	(88238)	1/75	7,000		English	(USA) GAN 6UF)
AKM 3261						English	(CANADA) GAN6 1975
AKM 3436						English	(USA) GAN 6UG 1976
AKM 3436 2nd	29/27	(89940)	11/75	7,500		English	(USA) GAN 6UG 1976
AKM 3519	29/27	(92375)	9/76	6,800		English	(USA) GAN 6UH 1977
AKM 3519 2nd	29/27	(93782)	3/77	5,017		English	(USA) GAN 6UH 1977
AKM 3519/1						English	(USA) Addendum to AKM 3519 (High Altitude)
AKM 4058						English	(USA) GAN 6UJ 1978
AKM 4058 2nd	29/27	(14083)	3/78	6,517		English	(USA) GAN 6UJ 1978
AKM 4059						English	(CANADA) GAN 6UJ 1978
AKM 4118/1						French	(CANADA) Supplement for 1979
AKM 4386						English	(USA) GAN6 1979
AKM 4390						English	(CANADA) GAN6 1979

THE MGB WORKSHOP MANUALS

AKD 3259						English	MGB Workshop Manual
AKD 3259B	29/31	(54980)	11/63	2,500		English	
AKD 3259 11th	36/45	(82448)	1/72	6,845		English	
AKD 3259 11th	29/31	(83515)	8/72	6,507		English	
AKD 4957	29/52	(8965)	10/67	3,500		English	Emission Control Supplement
AKD 7133	29/61			403		English	MGC Workshop Manual
AKD 8468 2nd	29/108	(84837)	6/73	4,135		English	V8 Supplement
AKM 3297	29/109	(88936)	8/75	2,507		English	1975 Workshop Manual
AKM 3524/1	No numbers printed					English	Supplement
AKM 4070	No numbers printed					English	1978 Workshop Manual
AKM 4070/1	29/109	(16760)	6/78			English	Use with AKM 4070 for 1979

THE MIDGET WORKSHOP MANUALS

AKM 2092	29/20	(86099)	12/73	2,005		English	All Midgets thru 1974
AKM 3267	29/119	(87896)	4/75	2,281		English	1975 Workshop Manual
AKM 3267/1	29/119	(89166)	8/75	2,361		English	Supplement to AKM 3267 (Catalytic Conv)
AKM 3438	29/119	(87896)	4/75	2,281		English	1976 Workshop Manual
AKM 3523	29/110	(92494)	11/76	2,330		English	1977 Workshop Manual
AKM 4071	No Numbers Printed					English	1978 "Repair Operation Manual"

We have again expanded the Nuffield listings to include the workshop manuals, as well as the driver's handbooks. In the next issue we hope to include the 1100/1300 information too. There are still large gaps in the numerical listings -- especially in the Continental Countries. We call on all the AMGBA members to fill out the questionnaire enclosed in this tech section and return it to us! We want to get this project COMPLETED so that we can turn to new projects (like defining the sales literature!).

Many members helped us to increase this listing:

Charles Manley	82	3055	San Jose CA
Roli Sylvestre	82	2941	Windsor Ont
Jack Barkley	82	3169	Valparaiso IN
Nino Catalano	80	1375	New Fairfield CT
Chuck Genrich	76	155	Annandale VA
Tom&Jean Weedman	81	2477	Milwaukee WI
Jon Rosenthal	80	1642	Willowdale Ont
O C Stonestreet	III82	2837	Mooreville NC
Dave Kunte	78	526	Rome PA
William Kelley	80	1066	Bergton VA

John Weir 77 353 Philadelphia PA
Harry Brown Grand Rapids MI
Jaguar Rover Triumph Leonia NJ

For those members not familiar with this project, our aim is to record all the driver's handbooks issued for the MG Midget, MGB, and 1100/1300, including all the printings of each issue, all the erratas and addendums. Additionally, we want to record the workshop manuals and any relevant publications. Each different publication carries a different "Nuffield Number" usually found on the last page. The first two numbers (eg 29/27 (18810)) are internal numbers used by the Nuffield Press. The third number is obviously the printing date, and the fourth, the number printed.

None of the information we've compiled so far has been available from any other source. JRT does not keep records of the books, neither does the Nuffield Press. This, then, is an AMGBA project which will help owners for years to come!

D I S T R I B U T O R A N D C A R B S P E C I F I C A T I O N S

by Walter Dickmann 80-1325 Köln, West Germany

<u>ORIGINAL WORKS EQUIPMENT</u>		<u>LATER REPLACED BY</u>		<u>IGNITION TIMING</u>			<u>ENGINE TYPE</u>	
Lucas#	BL Part#	Lucas#	BL Part#	Static	Stroboscopic	Dwell Angle	Engine	HC LC
40897	12H 792		12H2894	10°	14° / 600	60°±3°	18G 18GA 18GB	HC
40916	12H 952		12H2876	8°	12° / 600	Same		LC
40897	12H2722		12H2894	10°	14° / 600	Same	18GD 18GG	HC
40916	12H2731		12H2896	8°	12° / 600	Same		LC
41288						Same	18GG	HC
41290						Same		LC
41156						Same		LC
41288	12H2894			10°	13° / 600	Same	18V 581F/582F/583F 18V 581Y/582Y/583Y	HC
41290	12H2896			10°	13° / 600	Same		LC
41288 or 41032	12H2894			10° 5°	13° / 600 15° /1000	Same	18V 581Y/582Y/583Y	HC
41234 or 41391	32H 809			6°	11° /1000	Same		HC
41610	13H9694			7°	10° /1000	51°±5°	18V 846/847F	HC
41610					14° /1000 (79 on)	Same	18V 847F	HC
40897	12H2722			10°	20° /1000	60°±3°	18GF	HC
41155				10°	20° /1000	Same	18 GH	HC
							18 GJ	HC
41339	12H3580			10°	15° /1500	Same	18 GK	HC
41370	12H3967	41429		10°	16° /1500	Same	18V 584Z/585Z	LC
41491	12H4399			6°	12° /1500	Same	18V 672Z/673Z	LC
41599	13H9508			-	13° /1500	51°±5°	18V 797/798 AE	LC
41600	CAM1173	41693		-	10° /1500	-	18V 801/802 AE	LC
41644	AAU1551			-	10° /1500	..	18V 883/884 AE	LC
41643	AAU1552	41693		-	10° /1500	-	18V 890/891 AE	LC
41693	AAU4706	41813	ALU1083	-	10° /1500	-	18V 883/884 AE	LC
41695	AAU4708	41814	ALU1084	-	10° /1500	-	18V 890/891 AE	LC
41851	ADU3374			-	10° /1500	-	18V 883/884 AE	LC
41853	ADU3376			-	10° /1500	-	18V 890/891 AE	LC
41692	AAU4707			-	13° /1500	51°±5°	18V 892/893 AE	LC

Notes: Same means "same as above"

Dash (-) indicates no specification given

The information collected here is a composite of factory and Lucas information. It is entirely possible that the "tune-up sticker" on your MGB may have different specifications.

Walter Dickmann 80-1325 has contributed heavily to the technical sections of this and

previous Quarterlies. He has provided the Technical Chairman and the Association with incredible quantities of technical material not easily available in this country. We all owe Walter many kind thanks!

<u>HC/LC</u>	<u>CARBURETTER</u>	<u>JET NEEDLE</u>	<u>YEAR or MODEL YEAR</u>	<u>COUNTRY</u>	<u>REMARKS</u>
HC LC	AUD 52 later AUD 135	MB #5	62-67	All	
HC LC HC LC LC	AUD 278 AUD 325	FX FX	67-69 69-71	Not USA	
HC LC HC	AUD 492 (72) AUD 434 (73) AUD 434	AAU AAU AAU	72-73 72-73	Not USA Nor ECE ECE	
HC HC HC	AUD 616 FZX1001 FZX1229	AAU ACD ACD	1974 1975 76-80	Not USA Not USA Not USA/Canada	
HC HC HC HC LC LC LC LC LC LC LC LC LC LC LC LC	AUD 265 AUD 326 AUD 405 AUD 465 AUD 493 AUD 550 AUD 630 175 CD 175 CD 175 CD 5T 175 CD 5T 175 CD	FX AAE AAE AAL AAU ABD 45G 45H 45H 45M 45H 45G	68-70 1971 1972 73-74 1975 1975 1976 1976 77-79 77-79 1980 1980 76-80	USA USA USA USA FED USA CA Distributor Type 45 DE 4 USA FED USA CA USA FED Distributor 41813 and 41814 are type 45 DM 4 USA CA & Japan USA FED Distributor type 45 DM 4 USA CA & Japan Distributor type 45 DM 4 Canada	

Notes: ECE (European Economic Community -- the Continent)
 USA FED USA Federal Specification
 USA CA USA Californian Specification