



SPECIAL TUNING

PREPARED BY: THE B.M.C. SPECIAL TUNING DEPARTMENT
THE M.G. CAR CO. LTD., ABINGDON ON THAMES, ENGLAND

ISSUED BY: THE BRITISH MOTOR CORPORATION/HAMBRO INC.
734 GRAND AVENUE, RIDGEFIELD, NEW JERSEY

MODEL: AUSTIN HEALEY SPRITE MKI & MKII
MG MIDGET MKI - 948 CC

SHEET: CE 2

ISSUE: 1

DESCRIPTION

ENGINE

<u>DESCRIPTION</u>	<u>SPRITE MKI PART NUMBER</u>	<u>SPRITE MKII & MG MIDGET PART NUMBER</u>
Piston Assy. Flat top (9.3:1)(4 off)	2A 946	2A 946
Top ring (4 off)	2A 953	2A 953
Taper ring (8 off)	2A 954	2A 954
Scraper ring (4 off)	2A 955	2A 955
1 1/4" SU Carburettors (pair)	AUC 930	
1 1/2" SU Carburettors (pair)	AUC 989	AUC 989
Inlet Manifold kit (for 1 1/4" & 1 1/2" carbs.)	Q 2477	Q 2477
Camshaft Competition	2A 948	2A 948
Camshaft Competition - half race		AEA 731
Camshaft Competition - full race		AEA 648
Heavy duty crankshaft	AEA 406	AEA 406
Inner Valve spring (8 off)	AEA 401	AEA 401
Outer Valve spring (8 off)	2A 950	
Double Valve spring (set)	Q 2628	Q 2628
Valve spring collar - top (8 off)	AEA 402	AEA 681
Valve spring collar - bottom (8 off)	AEA 432	AEA 493
Exhaust valve - extra heavy duty (4 off)	AEA 400	AEA 400
Large inlet valve (4 off)	Q 2494	Q 2494
Large exhaust valve (4 off)	Q 2495	Q 2495
Cylinder head assy. - polished	Q 2304	Q 2304
Cylinder head		12A 184
Blanking sleeve thermostat	11G 176	11G 176
Large Sump	Q 2341	Q 2341
Lightened flywheel c/w starter ring	AEA 408	AEA 408
Distributor (for use with Camshaft 2A 948)	12A 193	12A 193
Connecting rods - polished (set)	Q 2346	Q 2346
Camshaft bushing set	28G 133	28G 133

CLUTCH

Complete competition clutch	AEJ 31	
Comprising		
Clutch cover assembly	AEJ 32	AEJ 32
Distance piece cover to flywheel	AEJ 36	AEJ 36
Clutch plate	AEJ 33	AEJ 33
Release bearing	AEJ 35	AEJ 35*
Retaining spring (for release bearing)	7H 3185	7H 3185
Bolts - clutch to flywheel	HNS 0507	HNS 0507

* Required up to Engine # 2139 only

IMPORTANT

Tuning of the kind described on this sheet is expressly excluded by the terms of the warranty of the vehicle manufacturer.

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DESCRIPTION

SPRITE MKI
 PART NUMBER

SPRITE MKII & MG MIDGET
 PART NUMBER

GEAR BOX

Close Ratio Gears

1st speed gear and 2nd speed synchronizer	AEA 3019	
2nd speed gear	22A 226	
3rd speed gear	22A 227	
Reverse gear	22A 204	
1st motion shaft (drive gear)	22A 228	AEA 3225
Laygear	22A 207	AEA 3223

EXHAUST SYSTEM

Tuned Exhaust System

Exhaust Manifold	AHA 5448	AHA 5448
Exhaust Pipe	AHA 5449	AHA 5449
Silencer - one in - one out	ARA 135	ARA 135
Clips (for silencer) (2 of)	AHA 5450	AHA 5450

Dual Exhaust System Kit

Twin Tail Pipes (Incorporates "Servais" one in, two out)		
Silencer with chrome plated tail pipes	Q 2347S	Q 2347S
Comprising		
Down pipe single	Q 2510	Q 2510
Down pipe double	Q 2511	Q 2511
Down pipe - intermediate	Q 2604	Q 2604
Silencer Assembly	Q 2605	Q 2605
Clip - large exhaust pipe (1 of)	Q 2606	Q 2606
Clip - small exhaust pipe (2 of)	Q 2607	Q 2607

SUSPENSION

Anti-roll bar kit	Q 2315	Q 2315
Competition front springs	Q 2334	Q 2334
Competition rear springs	AHA 5468	AHA 5468
Competition front suspension buffer	AHA 6378	AHA 6378
Competition shock absorber RH - front	AHA 6451	AHA 6451
Competition shock absorber LH - front	AHA 6452	AHA 6452
Competition shock absorber RH - rear	AHA 6453	AHA 6453
Competition shock absorber LH - rear	AHA 6454	AHA 6454
(fitted to HAN5 after Car #4333)		
Competition shock absorber valve - front	Q 2325	Q 2325
Competition shock absorber valve - rear	Q 2333	Q 2333

REAR AXLE

Differential assy. 5.375:1 (8/43)	ATA 7073	ATA 7073
Differential assy. 4.55:1 (9/41)	ATA 7093	ATA 7093
Differential assy. 3.73:1 (11/41)	ATA 7239	ATA 7239
Crown Wheel and Pinion 5.375:1 (8/43)	ATA 7040	ATA 7040
Crown Wheel and Pinion 4.875:1 (4/39)	C4/110	C4/110
Crown Wheel and Pinion 4.55:1 (9/41)	8G 7129	8G 7129

DESCRIPTION

SPRITE MKI
 PART NUMBER

SPRITE MKII & MG MIDGET
 PART NUMBER

REAR AXLE - Continued

Crown Wheel and Pinion 3.73:1 (11/41)
 Crown Wheel and Pinion 3.9:1

ATA 7240
 ATA 7354

ATA 7240
 ATA 7354

TANKS

Fuel tank (large)

Q 2336

Q 2336

ROAD WHEELS

Disc wheels (fitted as standard from
 Car # HAN6/26240,
 GAN1/17166)

AHA 6455

AHA 6455

Wire Wheels - 60 spoke

AHA 7573

SPECIFICATIONS

Camshaft

2A 948

2A 948

Inlet opens 16° B.T.D.C.
 Inlet closes 56° A.B.D.C.
 Exhaust opens 51° B.B.D.C.
 Exhaust closes 21° A.T.D.C.
 Camlift .312"
 Valve Lift .318"
 Period 252°
 Overlap 37°

Camshaft - half race

AEA 731

Inlet opens 24° B.T.D.C.
 Inlet closes 64° A.B.D.C.
 Exhaust opens 59° B.B.D.C.
 Exhaust closes 29° A.T.D.C.
 Camlift .320"
 Period 268°
 Overlap 53°

Camshaft

AEA 648

Inlet opens 50° B.T.D.C.
 Inlet closes 70° A.B.D.C.
 Exhaust opens 75° B.B.D.C.
 Exhaust closes 45° A.T.D.C.
 Camlift .315"
 Valve Lift .394"
 Period 300°
 Overlap 95°

Use with electric fuel pump -
 No provision for mechanical pump

SPECIFICATIONS - Continued

RATIOS

<u>Mark I Close Ratio</u>		<u>Mark II Close Ratio</u>	
1st gear	3.2	1st gear	2.93
2nd gear	1.916	2nd gear	1.754
3rd gear	1.375	3rd gear	1.242
Reverse	4.114	Reverse	3.768

Mark II close ratio gears can be used on Mark I in conjunction with Mark II standard internal gear parts (see Parts List).