

AUTO TEST

COSTELLO MGB GT V8

Tiger Tamed

AT-A-GLANCE: Rover 3500 engine in MGB transforms performance and imparts delightfully refined character to Abingdon GT. Handling improved by better weight distribution, excellent traction, no tramp. Fuel consumption can be heavy. Ultra-high gearing gives easy cruising.

If ever one of our Autoproject type of proposed designs were to come true, we hope it turns out as well as the Costello MGB V8, which is something in the same vein. Like the Autoprojects, this car is a kind of hybrid, built up from existing British Leyland components. We can think of no reason why BLMC are not producing it themselves, and their product planners ought to be ashamed at not having spotted this potential market.

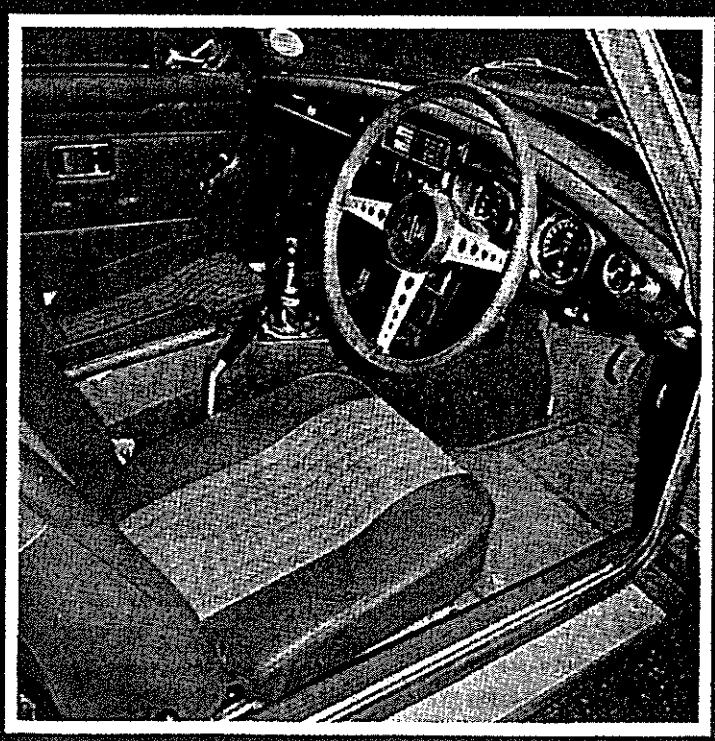
Getting down to facts and specifications, the Costello MGB is very simply an MGB powered by a Rover 3.5-litre vee-8 engine. The conversion has been executed by very competent engineers and the standard of finish is far and away better than the norm for this kind of swap. There is nothing under the bonnet to suggest that this is not an authentic BLMC model, only a bulge in the lid and special "egg box" grille giving the game away to an expert eye or a standard MGB owner. On the tail is a neat "Costello V8" badge.

Mated to the Rover engine is a normal MGB gearbox, which is now uprated and rationalised with that which used to be fitted to the MGC, driven through a 9.5 in. dia. clutch (the standard MGB uses an 8 in. unit). Final-drive ratio is raised from 3.9 to 3.07 to 1, standard MGB 165-14 in. radial tyres being used. This combination gives 22.85mph per 1,000rpm in direct top, instead of 17.9, and 27.9mph per 1,000 in overdrive. The test car was fitted with optional alloy road wheels with increased offset which led to slight wheel-arch fouling at speed on the MIRA banking.

Suspension, brakes and steering remain as on the standard MGB, the new engine actually improving the weight balance of the car. Compared with the MGB GT we tested on the 1 July 1971, the Costello V8 is nearly 90lb lighter overall and 109lb lighter at the front end, improving the

Only the bonnet bulge with a revised front grille and a neat "Costello V8" badge on the boot identify this MG as anything other than a standard 1.8. The rev counter has a modified red sector, starting at 5,000rpm. Under the bonnet the Rover engine is a neat fit with a very professional standard of finish

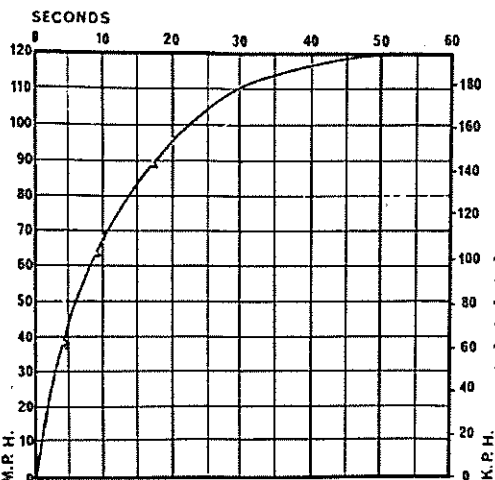




COSTELLO MGB GT V8 (3,528 c.c.)

ACCELERATION

SECONDS	SPEED MPH INDICATED	SPEED MPH TRUE	TIME IN SECS
30			2.8
31			
40			4.4
41			
50			5.9
50			
60			7.8
60			
70			10.8
70			
80			13.6
81			
90			17.3
92			
100			22.0
104			
110			29.9
116			
120			—
128			



GEAR RATIOS AND TIME IN SECS

mph	O.D. (2.53)	Top (3.07)	3rd (4.23)	2nd (6.65)	
10-30	—	—	5.2	2.9	Standing 1/4-mile
20-40	8.9	6.7	4.4	2.7	15.8 sec 83mph
30-50	8.0	5.8	3.8	2.8	
40-60	8.1	5.9	4.0	3.4	Standing Kilometre
50-70	8.5	6.4	4.8	—	28.9 sec 108mph
60-80	8.9	6.9	5.4	—	Test distance
70-90	10.5	7.4	6.7	—	743 miles
80-100	12.6	9.7	—	—	Mileage recorder
90-110	18.2	14.0	—	—	2 per cent over-reading

PERFORMANCE

MAXIMUM SPEEDS			
Gear	mph	kph	rpm
Top (mean)	128	206	5,600
(best)	130	209	5,700
O.D. 3rd	118	190	5,900
3rd	98	158	5,900
2nd	63	102	6,000
1st	39	63	6,000

BRAKES

FADE (from 70 mph in neutral)			
Pedal load for 0.5g stops in lb			
1	40-25	6	45-50
2	40-30	7	50-60
3	40-30	8	50-60
4	50-40	9	50-60
5	50-55-45	10	50-60

RESPONSE (from 30 mph in neutral)		
Load	g	Distance
20lb	0.18	167ft
40lb	0.55	55ft
60lb	0.94	32ft
65lb	0.96	31.3ft
Handbrake	0.32	94ft
Max. Gradient	1 in 3	

CLUTCH

Pedal 35lb and 5.5 in.

COMPARISONS

MAXIMUM SPEED MPH	
Costello MGB GT V8 (£2,392)	128
Datsun 240 Z (£2,311)	125
Morgan Plus 8 (£1,730)	124
Ford Capri 3000 GT (£1,538)	122
Triumph TR3 (£1,476)	119

0-60 MPH, SEC	
Morgan Plus 8	6.7
Costello MGB GT V8	7.8
Datsun 240 Z	8.0
Triumph TR3	8.2
Ford Capri 3000 GT	8.4

STANDING 1/4-MILE, SEC	
Morgan Plus 8	15.1
Costello MGB GT V8	15.8
Datsun 240 Z	15.8
Ford Capri 3000 GT	16.2
Triumph TR3	16.3

OVERALL MPG	
Ford Capri 3000 GT	21.5
Datsun 240Z	21.4
Triumph TR3	19.8
Costello MGB GT V8	18.8
Morgan Plus 8	18.3

GEARING

(with 165-14 in. tyres)	
O.D. Top	27.9mph per 1,000rpm
Top	22.85mph per 1,000rpm
O.D. 3rd	20.1mph per 1,000rpm
3rd	16.6mph per 1,000rpm
2nd	10.5mph per 1,000rpm
1st	6.6mph per 1,000rpm

CONSUMPTION

FUEL (At constant speed—mpg)	
30 mph	29.3
40 mph	30.3
50 mph	29.3
60 mph	28.0
70 mph	26.3
80 mph	24.9
90 mph	22.4
100 mph	19.8

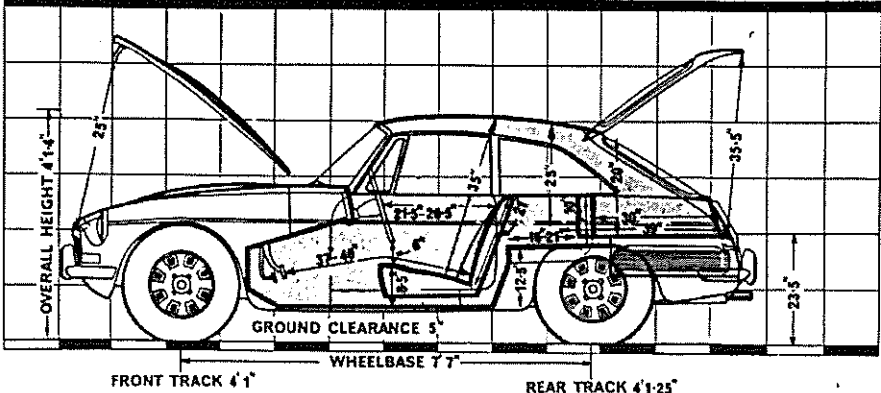
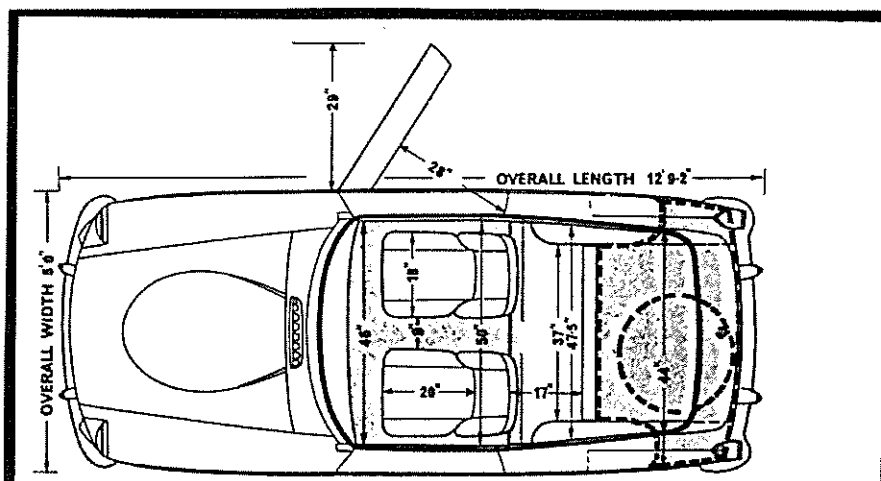
Typical mpg 21 (13.4 litres/100km)
 Calculated (DIN) mpg 23.9 (11.8 litres/100 km)
 Overall mpg 18.8 (15.0 litres/100 km)
 Grade of fuel Super, 5-star (min. 100RM)

OIL
 Consumption (SAE) Negligible

TEST CONDITIONS:
 Weather: Fine. Wind: 8-14 mph.
 Temperature: 6 deg. C. (43 deg. F).
 Barometer: 29.4 in. hg. Humidity: 56 per cent.
 Surfaces: Dry concrete and asphalt.

WEIGHT:
 Kerb Weight 20.5 cwt (2,292 lb-1,041 kg) (with oil, water and half full fuel tank).
 Distribution, per cent F, 50; R, 50.
 Laden as tested: 23.9 cwt (2,672 lb-1,215 kg).

TURNING CIRCLES:
 Between kerbs L, 32 ft 1 in.; R, 33 ft 4 in.
 Between walls L, 33 ft 2 in.; R, 34 ft 5 in.
 Steering wheel turns, lock to lock 3.
 Figures taken at 800 miles by our own staff at the Motor Industry Research Association proving ground at Nuneaton.



STANDARD GARAGE 16ft x 8ft 6in.

SPECIFICATION

FRONT ENGINE, REAR-WHEEL DRIVE

ENGINE	
Cylinders	8, in 90 deg vee
Main bearings	5
Cooling system	Water, pump, fan and thermostat
Bore	88.9mm (3.50in.)
Stroke	71.1mm (2.80in.)
Displacement	3,528 c.c. (215 cu. in.)
Valve gear	Overhead, pushrods, rockers and hydraulic tappets
Compression ratio	10.5-to-1. Min. octane rating: 100RM
Carburettors	Two SU HIF 6
Fuel pump	AC mechanical
Oil filter	Full-flow, throw-away can
Max. power	150bhp (DIN) at 5,000rpm
Max. torque	201 lb.ft (DIN) at 2,750rpm

TRANSMISSION	
Clutch	Borg and Beck, 9.5in. dia., diaphragm-spring
Gearbox	Four-speed, all-synchromesh
Gear ratios	Top 1.0 OD top 0.82 Top (Auto) Third 1.38 OD third 1.14 Second 2.16 First 3.44 Reverse 3.10
Final drive	Hypoid bevel, 3.07 to 1

CHASSIS and BODY	
Construction	Integral steel body and chassis

SUSPENSION	
Front	Independent, wishbones and coil springs, lever-arm dampers, anti-roll bar
Rear	Live axle, half elliptic leaf springs, lever-arm dampers

STEERING	
Type	Rack and pinion
Wheel dia.	15.5in.

BRAKES	
Make and type	Lockheed, front discs, rear drums
Servo	Optional
Dimensions	F 10.75in. dia. R 10in. dia. 1.7in. wide shoes. F 203sq.in., R 107sq.in.
Swept area	Total 310 sq. in. (259 sq. in./ton laden)

WHEELS	
Type	Pressed steel, Ro-style, 5in. wide rim.
Tyres—make	Dunlop
—type	SP/radial ply tubed
—size	165—14in.

EQUIPMENT	
Battery	2×6 Volt 60 Ah.
Alternator	Lucas 16ACR
Headlamps	Lucas 100/90 watt (total)
Reversing lamp	Standard
Electric fuses	2
Screen wipers	Two-speed
Screen washer	Manual plunger
Interior heater	Standard, water-valve type
Heated backlight	Extra
Safety belts	Extra
Interior trim	PVC seats, PVC headlining.
Floor covering	Plastic/carpet
Jack	Screw pillar
Jacking points	One each side
Windscreen	Laminated
Underbody protection	Phosphate treatment before painting

MAINTENANCE	
Fuel tank	12 Imp. gallons (no reserve) (55 litres)
Cooling system	18 pints (including heater)
Engine sump	8 pints (4.6 litres) SAE. Change oil every 3,000 miles. Change filter element every 6,000 miles.
Gearbox and overdrive	5.5 pints SAE 20W/50. Change oil every 24,000 miles.
Final drive	1.5 pints SAE 90 EP. Change oil every 24,000 miles.
Grease	7 points every 3,000 miles.
Tyre pressures	F 23; R 23 psi (normal driving) F 26; R 26 psi (fast driving)
Max. payload	425lb (193kg)

PERFORMANCE DATA	
Top gear mph per 1,000rpm	22.85
Overdrive top mph per 1,000rpm	27.9
Mean piston speed at max. power	2,333 ft/min.
Bhp per ton laden	125

AUTOTEST

COSTELLO

MGB GT V8 . . .

weight distribution from 52.6:47.4 to exactly 50:50. The optional brake servo forms part of the Costello package and harder anti-fade front pads increase the pedal effort very slightly over a standard MGB set-up. It still took less than 70lb on the pedal to lock all four wheels from 30mph in the dry.

Despite the ultra-high gearing which forms such a vital part of the car's character transformation, the MGB V8 is extremely quick off the mark. The test car had covered too few miles for it to be giving the real peak of its performance, but it still scorched off the line to reach 60mph in only 7.8 sec and 100mph in 22.0 sec. For comparison, the four-cylinder MGB takes 13.0 sec to reach 60mph and after 22 sec it is doing only 76mph. The six-cylinder MGC, when it was in production, took 10 sec to reach 60mph and 29.3 sec to reach 100mph. Compared with this latter unhappy and ill-fated car, the Costello machine is a full 11 sec quicker from rest to 110mph.

As installed in the MGB, the Rover engine develops about 150bhp, which is 58 per cent more than that of the BLMC B-series unit. Extra capacity has always been the easy way to increased torque, and the Rover engine develops over 200lb.ft. (DIN); this is 82 per cent more than the torque of the MGB and the peak comes at 2,750 instead of 3,000rpm.

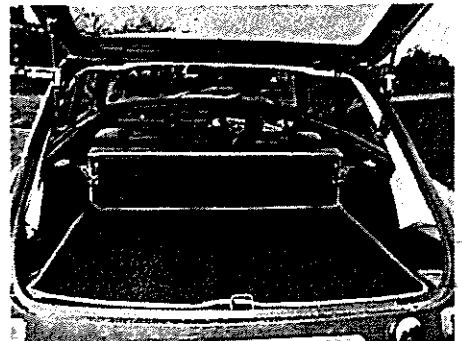
It is no surprise therefore to find the Costello V8 a flexible, easy-to-drive car with deceptively brisk performance and delightfully "long" gears which have real punch low down and plenty at the top end as well. First, for example, will run to almost 40mph before the hydraulic tappets pump up and limit the revs, while overdrive top can be used smoothly from as low as 20mph. Engine noise is minimal, the exhaust is quiet and free from that characteristic vee-8 beat experienced on most American cars and the whole car much more refined to ride in than any MG built at Abingdon.

In contrast to the silky smoothness of the engine, the standard MG ride feels decidedly firm and around town the taut joggly behaviour can be uncomfortable. Out on the open road at speed, or in a tricky corner taken fast, the virtue of these characteristics is regularly appreciated and the car feels extremely safe, stable and surprisingly integrated as a design. The better weight distribution is easily noticed and despite the absence of rear radius rods, we experienced no axle tramp either during standing start wheelspin getaways in the dry or full-power low-gear cornering in the wet.

Regular readers who can cast their minds back a few years will recall that we ran two Sunbeam Tiger V8s as staff cars successively, first a 4.2 then a 4.7-litre. Comparisons are natural, and although the Costello V8 has much of the same tiger-like quality about the way it squirts between corners, it is all much better tamed, much more under control and much less dramatic. With the Tiger you found yourself being spectacular, even if you started out in a docile frame of mind. In the MGB V8

one is much more subtle, more subdued, just as quick and much safer on corners. When it rained, the Tiger driver had to tread very gently (like on a wet pavement in crepe-soled shoes) to avoid excessive wheelspin all over the place and fearsome axle tramp that could, if allowed to persist, break off the rear damper mounts very rapidly indeed. In the MGB V8 we found a surprising amount of traction on wet roads and no suspension problems at all.

To make room for the Rover induction system on top of the engine, Ken Costello replaces the standard MG bonnet with a glass-fibre moulding incorporating a large but smoothly blended bulge. The paint was a perfect match on the test car and one could not see that it was made from anything other than steel. The rest of the



car is perfectly standard MGB, so one learns to live with an insensitive water-valve heater, poor ventilation, a tin-lidded glove locker that can be shut only with a key and seats set very low in the car. MGB owners will have come to terms with all this, but anyone expecting this car to be as well planned and equipped as, say, a Datsun 240Z will be disappointed. That is British Leyland's fault, not Ken Costello's.

From the overall fuel consumption returned of 18.8mpg, it would appear that the MGB's remarkable thrift (23.7mpg overall on test last year) has been thrown by the board. If you compare the steady-speed consumption figures though, you find that at high speed the two cars are remarkably similar and that our low overall figure reflected more than usual the amount of town driving we were forced to endure. In more normal circumstances the V8 should return better than 20mpg without any pussy-footing.

As a final note in this test we should add that at no time did the engine temperature gauge even flicker from the normal position and never did we experience even a trace of plug fouling. As a conversion, we rate this car as perfect and as a model in its own right it deserves the highest praise. □

MANUFACTURER:
Costello Motor Engineering Ltd.,
Farnborough Way, Farnborough, Kent.

PRICES	
Basic	£2,181.00
Purchase Tax	£252.81
Seat belts (approx.)	£9.43
Total (in G.B.)	£2,443.24

EXTRAS (inc. P.T.)	
* Overdrive	£62.83
* Radial tyres	£9.67
* Alloy wheels	£88.00
* Heated backlight	£12.57
* Fitted to test car	

PRICE AS TESTED £2,616.31