

# MISTER V8

**In 1970 Ken Costello put a Rover V8 engine into an MGB and embarrassed British Leyland into producing their own version. Martin Buckley talks to the man himself and compares a Costello V8 with a factory GT V8, on the road. Photography by Oli Tennent.**

Why did it take Leyland so long to fit the Rover V8 engine into the MGB? From the moment the unholy alliance of BMC and Leyland was formed in 1968 - bringing Rover under the corporate umbrella - it had to be the most obvious shoe-horn job in the world. There, right under Abingdon's nose, was a light, compact, and powerful 3.5-litre unit that was just begging to be fitted under the bonnet of the anaemic, over-engineered B. Instead, they were forced to struggle for two disheartening years with the gutless C and it was left to an enterprising ex-Mini racer called Ken Costello to market his own 'home grown' MGB in 1970.

In those days Leyland couldn't tell their left from their right hand and when the go-ahead for a factory V8 was finally given it came years too late. No one was interested in a 120mph sportscar with a fuel crisis around the corner and in any case the B was by then too decrepit to take proper advantage of its newfound V8 fervour - the rest of the car just wasn't up to it. It was expensive too, especially when for only £500 more you could enjoy the extra space and much greater refinement of BL's own Triumph Stag. It was priced out of contention and within three years the MGB BT V8 - potentially the best car Abingdon had ever made - was dead.

Now in his early sixties, but still full of energy and enthusiasm, Ken Costello was best known for his Mini Cooper racing exploits before he got into the V8 transplant business in 1970: 'We used to fly in those days' he says, with a gleam in his eye, 'although ours were not as highly modified as some. They were great times ... Saloon car racing isn't as exciting these days...' The Costello racing programme lasted 12 years and Ken won the Redex Saloon Car Championship in 1966 in his Cooper 1275S.

Ken also ran a F3 car, and you can spot him in John Frankenheimer's 1967 film *Grand Prix* where he, and numerous other real racing drivers like Graham Hill, acted in bit parts alongside the stars James Garner and Yves Montand.

'I can still remember Yves Montand getting out of Jim Russell's car as white as a ghost after being towed at 140mph by the GT40 camera car...'

Ken first came into contact with the ex-Buick Rover V8 engine in 1969, two years after its first use in the big P5B saloon. 'I happened to walk into Piper's garage one day and saw this engine on the floor. I was virtually able to pick it up, and thought: 'If this will fit it's just what the MGB needs'. Fit it did, with modifications to the bulkhead where it was fouled by the cylinder heads, and to the engine bay side walls to give clearance to the new tubular exhaust manifolds, which Costello originally produced but later farmed out to Mike Randall.

To get the steering column to fit, an extra Hooke joint was welded into the steering column. There was a fabricated bell housing adaptor to allow the unit to be mated up to the standard MGB gearbox, and in order to retain the existing B series flywheel, Costello put together another adaptor to hitch it up to the Rover crankshaft.



'We didn't need to do much to the chassis' says Ken. 'We just fitted DS11 pads to counteract any fade there might have been. Leyland stiffened up the back end on their version, which wasn't necessary - it just made the car choppy on corners.'

The first car to be converted was a roadster and Ken dismisses Leyland's suggestion that the open car wasn't rigid enough to handle the torque of the V8. On the second car built, a GT, Ken fitted an MGC radiator at first with the standard C fan but later replaced it with an electric installation to solve complaints of overheating. There was an MGC 3.07:1 back axle too, giving a long-legged 27.9mph per 1000rpm in overdrive top.

Costello was always aware that the B box was operating near its limit and the point was brought home when a few customers brought their cars back with chewed-up third gears, the result of changing down from overdrive to direct third under full throttle. A lesson was learned and from then on Ken blanked-off overdrive on third. It was largely redundant in any case, so torque was the big new engine: 200lb/ft of torque belted out at only 2750rpm and a gross bhp rating of 175bhp lifted the B's performance onto an altogether higher plane, with 0-60 dispensed with in 7.8 seconds, the ton coming up in 22 seconds. *Autocar* managed 128mph all out in their 1972 road test.

At first you could tell a Costello apart from a standard B by its cast, matt black 'egg box' grille (made specially for Costello by a firm in Birmingham), the special badge on the rear panel, and a macho power bulge to contain the tall SU carburetion fitted to early cars. When Costello later came up with a new inlet manifold to allow the use of a side draught Weber it allowed

customers to retain their original steel bonnets, although many buyers wanted to keep their power bulges as a way of telling their investment apart from stock Bs.

Once the development of the first two cars was finished, the rest was easy, as Ken relates.

'We could do a conversion in five days, either on brand new cars or on ones that customers supplied. We tried to get Leyland to sell us cars without engines but they didn't want to know. We ended up with a stack of B series engines nobody wanted!'

There was a great deal of press interest in the car and after *Motoring News* published a glowing report orders came flooding in. It wasn't long before a letter had dropped on the door mat from Leyland's director of engineering, asking to borrow a car for appraisal.

'They were selling so well that I didn't have a car to spare', laughs Ken, 'but I wrote back and told them that the next time I was up in Birmingham, I would drop one into Longbridge.'

When Ken did eventually turn up at Longbridge (unannounced) he caused quite a stir. 'Within two minutes Harry Webster and George Turnbull were out to look at it. They took it round the track and were very impressed. After lunch they asked me how I could help and I replied all I was interested in was keeping a supply of MGC crown wheels.'

A few weeks later Ken was summoned to see Lord Stokes at Berkeley Square in London. 'He drove the car and then asked me what would I do if Leyland started building their own. I told them it would take two years to bring it to production and in the meantime I would just keep producing it. Shortly after that Leyland sent me a car and a new V8 engine to convert for them. I did, and they sent it back to Abingdon so they could check out what I had done. They wrote back with one or two 'nit-picking' points, the main one being the welded joint in the steering which they didn't like. I wrote back and told them that it was a far better joint than they did on the Mini steering. I never got a reply to that.'



*Standard factory V8, introduced in 1973, came only in GT version. V8 badging on grille, rear panel, and near side wing, plus alloy wheels are only recognition points.*

At this point Leyland took the decision to make their own MG V8 and the word went round all the dealers that no new V8 engine could be sold without getting one in exchange, which effectively cut-off Ken's supply. 'But what I could get were all the parts and there were hundreds of the original Buick engines in Belgium, so I sent a truck over there to buy as many as I could find. All we were interested in were the blocks; we stripped them completely, dipped them in the acid

bath, bored them and rebuilt them with Rover parts. Being diecast rather than sandcast, the Buick block was lighter than the Rover block, which was one benefit.'

Those tactics kept Ken going for two years until Leyland finally got their own V8 together, in August 1973. Outwardly the factory V8 looked little different from the standard B GT which was probably BL's first mistake. The only tell-tale signs were the Dunlop alloy wheels, with the cast alloy centre and steel rim, similar in style to the Reliant Scimitar fittings of the period, and wearing wider 175/14 rubbers. There were V8 badges on the front grille, the engine had most in common with the Range Rover installation, issuing the same low compression 8.25:1 pistons to give a power output of 137bhp at 5000rpm, well down on the saloon car units Costello used. Torque was affected little at 193lb/ft at 2900rpm, a massive 75 per cent increase over the standard 1800c MGB.

**"Being diecast the Buick block was lighter than the sand-cast Rover block, which was one benefit."**

It was a neat installation too, with its own black crackle finished MG cam covers and the twin SU carbs mounted at the rear of the engine on special manifolds, with inlet tracts facing towards the back of the engine. The exhaust manifolds were redesigned with two branches merging into one in the region of the bell housing. There was a new AC Delco dynamo, an oil filter mounted in series with the oil cooler for easier access and a new, bigger radiator with two electric fans.

The gearbox was strengthened slightly with its intermediate ratios closed up. Abingdon took a leaf out of Costello's book and only had overdrive working on top gear. The gearbox casing was redesigned with a bigger 91/2inch clutch and the added refinement of ball race withdrawal instead of a carbon bush. Like the Costello, the factory V8 ran an MGC 3.07 back axle, allowing 28.5mph per 1000rpm in overdrive top.

The V8 rode an inch higher all round with beefed-up front springs to take care of the slightly increased weight (with accessories the V8 was slightly heavier than the B series). At the back, any worries about axle tramp were put to rest by the introduction of three main leaf springs to replace the single main leaf and five auxiliary leaves set-up of the four-cylinder version. Relative to the front wheels the steering rack was mounted further forward on the V8 and the primary shaft from the rack to the universal joint was lengthened, making the column shorter. Thicker Lockheed front discs were used to stop the V8, with a servo as standard.

Leyland pitched the price of their V8 at £2352, which put Costello's car out of the running: his conversion added nearly £1000 to the cost of the standard B and he just couldn't compete against a fully factory-guaranteed offering, even if it was only available as a GT. Ken didn't keep any records, but guesses that he converted well over 200 cars before he downed tools in 1973.

The factory car received a cool reception from the press, who loved the V8's performance but had little time for its lack of refinement and generally

dated feel. *Autocar*, in their August 1973 road test, summed up the general opinion of the car perfectly.

*'Such short-comings as excessive wind noise, a harsh ride and heavy steering may be forgiven in an out and out sports car but they have no place in a GT car costing over £2000. More unfortunate still is the fact that such short-comings are accentuated by the superb smoothness and relative quietness of the Rover V8 engine, which, it must be admitted, goes most of the way to making up for the less likeable facets of the car.'*

Strong words for *Autocar* back then.

V8 sales were always slow, possibly due to the fact that it just didn't look much different from the ordinary MGB GT, and the hefty price tag and rather down-beat press notices can't have helped matters. Like the rest of the MG range, the V8 suffered the indignity of rubber bumpers in 1974, lessening its appeal even further. Production finally dried up in September 1976 after only 2591 MGB GT V8s.

### Driving Impressions

Mike Holman's B GT doesn't feel like an under-developed hot-rod. In fact, apart from the deep, hollow burble from the exhausts, you wouldn't know it was anything other than a 4-cylinder B.

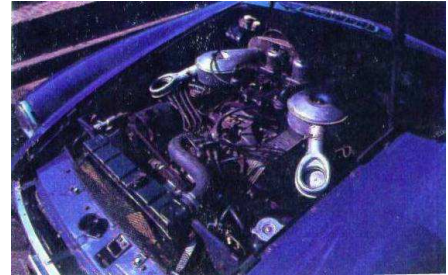
Clutch, brakes and steering all have a similar uniform weight and feel – heavy, but not quite to the point of feeling cumbersome or awkward. In traffic, as long as you never actually come to a stop, you can treat the gearbox as a two-speeder, so plentiful and smooth is the torque served up by the engine from walking pace onwards. In top, or even overdrive top, you can plonk your right foot to the floor and know the car is going to pull away with total smoothness and considerable vigour. It's the consummate top-gear potterer if you want it to be, totally docile, totally obedient.



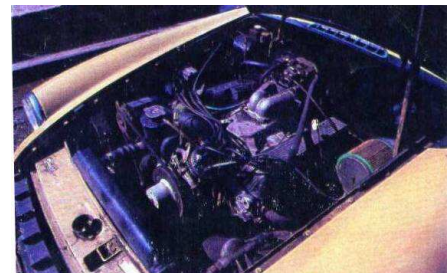
Costello V8 has stable handling, near-neutral steering

Using the gearbox however, it becomes a hooligan toy of the first order. The acceleration is fearsome.

Even the most marginal overtaking opportunities seem possible once you get the measure of the performance available. The gearbox felt fine, with short well-defined movements quite strongly biased towards the 1<sup>st</sup> and 2<sup>nd</sup> plane, a pause between down-changes, with a blip of the throttle helping it along just a little. Mike puts its continued good health down to smooth use, though he freely admits to working the car hard whenever possible.



Factory MG V8 has almost Range Rover specification unit



Costello uses a Buick alloy block with Rover ancillaries

Through corners the Costello sits flat and stable, easy to place with the positive rack-and-pinion steering, though road shocks are quite vividly transmitted. With 50/50 weight distribution the car's attitude is neutral with a tendency towards progressive, gentle oversteering when pressed really hard. Mike ably demonstrated this during our cornering shots. It can be very hairy in the wet, according to Mike, who has had the car fish-tailing in third gear before now.

'The best way to correct it' smiled Mike, "is just to let go of the steering and let the self-centering – which is very strong – do all the work'.

Mike bought his Costello in 1979, having no idea what his implied. The engine – a Buick unit – has been completely rebuilt and the only real problem since then has been with jetting of the Weber carb, which meant that there was a huge low-speed flat spot to contend with, caused by the slow-running jet. The engine goes through a rough patch at 2500rpm, caused by wrong pistons used when it was rebuilt, though I couldn't feel anything.

The factory V8 feels much less happy than its twin. It's nowhere near as fast for a start, 'flat' as Ken Costello sniffily commented while driving the car, which was the first factory V8 he had ever driven, as far as he could remember. It was smoother and a little quieter than the Costello and had a less fruity exhaust bellow, but when the chips were down it just couldn't gather speed with the force of the earlier machine. It just lacked the Costello's crisp, instant response.

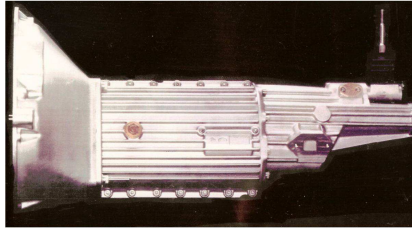
You sit rather higher in the factory V8, and once underway you are quickly aware that the ride has a choppy feel, especially at the back where those extra leaves were evidently doing their job rather too well. The steering is much stiffer too, though the precision is still good and the factory car feels easy to place and has rock-solid stability through wide open corners. There's more roll, though, and the Abingdon machine feels a little more ready to oversteer especially if you chicken out half way round, another function of that over-stiff rear suspension. The gearbox wasn't as positive, the lever feeling rather sloppy in its gate though the gears meshed easily enough.

Quite why the factory V8 turned out to be a less able car than a home-grown special is difficult to understand, especially as they had time to develop the car and BL's resources behind them.



### Ken's New Gearbox

For the last few years Ken Costello has been developing a new 5-speed gearbox, suitable for use with high torque engines. It was the lack of strength in the MGB box that originally prompted him to design the unit.



His new box is 20lbs lighter than the Rover SD1 box many BV8 owners now use, and once fitted in the B you don't have to take the engine out to change the clutch. A great advantage. Also, the box can be taken apart with one Allen key. It offers synchromesh on reverse, and in his B V8 roadster Ken showed us that it has a perfect change quality even from stone cold. When idling there is no chattering either.

With the right bell housing it can be used on almost any car – testing has been done in the latest Jaguars and Maseratis - and compared to the German opposition (ZF and Getrag) it is much quieter and more refined.

At the recent MG World show Ken received numerous orders for the gearbox. British Government red tape, however, has prevented Ken from going into production in the UK and the box is now to be built in India.

*2009 Update:* This small run of gearboxes quickly sold out and it is currently unavailable.