

# V8 SHOWDOWN

It took British Leyland some considerable time to realise the potential of the Rover V8 as a sports car engine. It was an engineer called Ken Costello who showed them the way. **Ian Ward** compares the two cars and talks to Ken Costello



**Q**: when is a V8 MGB not an MGB V8? **A**: when it's a Costello. Puzzled? Well, way back in the late '60s, when Abingdon's best-selling sports car was already a few years into its impressive production run, an engineer and race-preparation specialist by the name of Ken Costello recognised that the B could do with a decent supply of horsepower and found the answer in Rover's newly acquired V8.

This was back in the late 1960s, when Ken spotted a GM version of the Rover power plant sitting on someone else's workshop floor; he realised just how light the unit must be, with its all-alloy construction and reasoned that it would weigh little more than the cast-iron B-series lump yet would develop around twice as much power. He

was right: the V8 actually tipped the scales at some 90lb less than the straight-four, which in turn weighed far less than the massive in-line six of the recent but unloved MGC.

At that time, the factory had not given more than a passing thought to carrying out such a transplant. The engine, an obsolete Buick unit, had only just been brought into BL (the new conglomerate of 1968 incorporating both MG and Rover) and the corporation preferred to push the MGC as the 'super B'.

The conversion itself was fairly easy to carry out. There was plenty of room for the engine itself, just a little judicious panel-beating being required to produce clearances between the purpose-built tubular exhaust manifolds and the engine bay side walls. To start with those manifolds were fashioned in-house, but once the shape was fixed the manufacturing job was farmed out to Mike 'The Pipe' Randall, still one of the most respected names in the exhaust business.

The engine mountings were adapted to suit the V8 and a bell-housing adaptor fabricated to make the engine to the existing MGB gearbox; incidentally the MG flywheel was also employed, something which

*The Costello is identified from the front by its egg-box grille and V8 badge; the under-bumper spoiler is a late addition to the package (above). The rubber bumper of the late car gives it quite a different appearance, but this visual difference is purely superficial (left)*



*A 1.5-inch greater ride height in the late-model MGB is exaggerated by the larger rubber front bumper; even so, there is no missing the sleeker stance of the chrome-bumper car (left). The V8 nature of each version is apparent from the rear badging, but the Costello conversion adds its name to complete the picture (above)*

required the use of another adaptor to link it to the Rover crankshaft.

The rest of the transmission on that original car was standard B, which meant that the whole set up was considerably undergeared. The steering column required an extra universal joint to thread it around the right-hand manifold — something which caused controversy later on.

One important point about that first conversion was that it was carried out on a

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roadster — as were many subsequent transplants. Ken Costello maintains that there were no structural reasons why the convertible should not comfortably take the extra power, but the factory never offered the V8 in other than GT form.

Having established that fitting the new engine was a practical possibility, a second car, this time a GT, was given the treatment, with production solutions this time applied to the engineering problems. The higher-geared MGC back axle went in, but the overdrive B box remained, giving 27.9mph/1000rpm in the overdrive ratio. Cooling was taken care of by an MGC radiator, initially with a C fan on the end of the crank, but later with an electric fan located up front.

Suspension was untouched, the all-up weight being reduced and the distribution of that weight improving from a front bias to a

50/50 split. Braking, too, was left alone, on the basis that it was adequate for 1800cc MG performance (up to 105mph), but harder pads were specified for anyone who intended to use the increased top speed of nearly 130mph.

The bonnet bulge that clearly identified the early Costellos was there to cover the original Rover induction system, topped by twin SUs and a large air cleaner behind. Subsequent re-engineering brought a new upper inlet manifold, either to move the SUs or to fit a side-draught Weber, pointing backwards just ahead of the bulkhead. As Ken Costello pointed out, several customers who were offered the update which

permitted refitting the original bonnet refused, on the grounds that they wanted their cars to be recognisable.

Power output depended on the version of V8 used, but in general the output was a gross 175bhp (more like a genuine 150), at 5000rpm, with a massive 200lb ft of torque on tap at a lowly 2750rpm. An *Autocar* test of May 1972 revealed 0-60mph acceleration of 7.8 seconds, compared with 11.6 seconds in an 1800, and a maximum speed raised from around 105mph to 128mph.

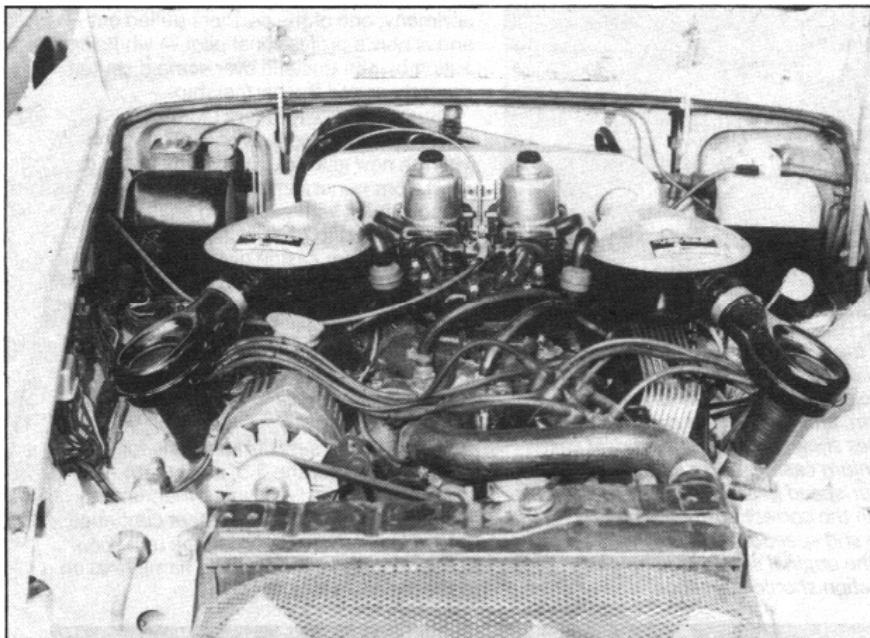
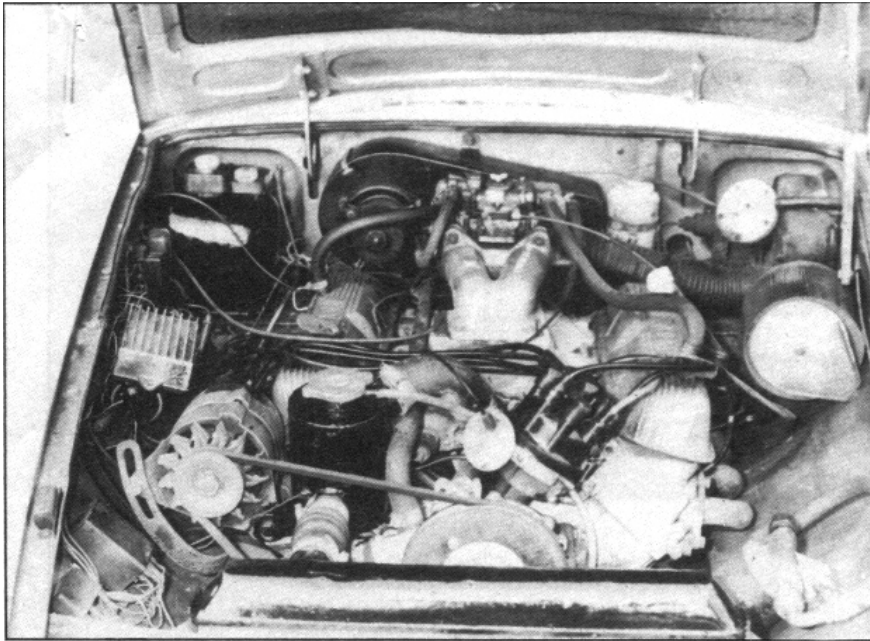
Cost was the drawback, the conversion adding £975 to the £1400 of a standard GT, pricing it way above rivals of similar performance. Still, this did not stop the orders from rolling in between 1970 and 1973. Exact production figures are lost in the mists of time, but Ken says he stopped counting past the 200 mark.

Of course the whole project died a natural death when the Abingdon factory finally introduced its own V8 MGB in August 1973. At £1925, it undercut the Costello by quite a margin, so that there was no longer a real demand even for converted roadsters. The story is not that simple, though. A lot of water flowed under the bridge between Costello Motor Engineering and BL on the way.

For a start, the idea of slotting the V8 into the B had passed through corporate minds earlier on, but the product planners had come to the conclusion that the car would need to be considerably wider if it was to accommodate the new engine. End of round one!

The next awakening for the works was when Ken Costello let the Press loose in one of his cars and accumulated a handy pile of useful publicity as a result. A letter arrived from the Director of Engineering at Longbridge, asking if he could borrow a car



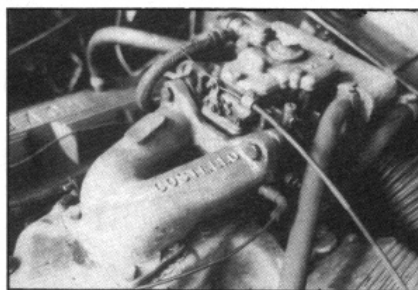


for assessment. Ken did not have an example that he could spare, so he drove up to Longbridge, where the senior management gave the V8 the once-over.

Next came a call from Lord Stokes himself, at the London headquarters, asking to see the car, but the warning signs were there, because his Lordship asked Ken what he might do if BL were to go ahead on their own. Even so, things progressed, and a brand new car was sent down to Kent, complete with new engine, for Costello to carry out a conversion. Maybe Ken should have stuck out for some further involvement, but he knew that a production car would be far enough away to give him some breathing space, so he obliged the Abingdon men.

As it turned out, the only response was a criticism of the welded steering-column joint, to which Ken replied that it was stronger than a similar type used on the Mini.

After this, nothing was heard, but



*A quick glance suggests substantial differences between the two engine bays, but in fact beneath the disparate induction systems and the individual cooling arrangements the installations are very similar, despite the different legends on the rocker boxes (top and centre). The Costello's Weber is mounted on a specially cast top section for the inlet manifold and sits well back to keep height down and permit the fitting of a flat bonnet (above)*

complete engines became impossible to obtain, and Ken resorted to buying used Oldsmobile engines from the Continent, salvaging the blocks and rebuilding them with all new Rover parts (as it happened the Olds block was lighter anyway, because it was die-cast instead of sand-cast).

That allowed Ken to turn out his V8 Bs right up until the launch of the factory car, at which point further production became confined almost exclusively to modifications on used cars.

But was the Abingdon car up to scratch?

We were recently able to find out. The MG Owners' Club were kind enough to put us in touch with Mike Holman, who owns a Costello, and to let us loose in a late factory V8 belonging to Workshop Manager Jim Adamson. Mike, who lives not a million miles away from CW Towers in sunny Slough, willingly agreed to join us on the trek to MGOC headquarters in Swavesey. What's more, he was brave enough to let the Publisher/Photographer/Tea Technician-in-chief, take the hot seat for the journey.

Mike's GT is a late Costello, of 1972 vintage, which he bought in 1979 without even knowing what a Costello was. He is unsure of the car's exact specification, but is pretty certain that it has some GM in its engine — a fact confirmed by our subsequent conversation with Ken Costello. Carburation is a 45DCOE Weber and one interesting feature is that the fan belt runs

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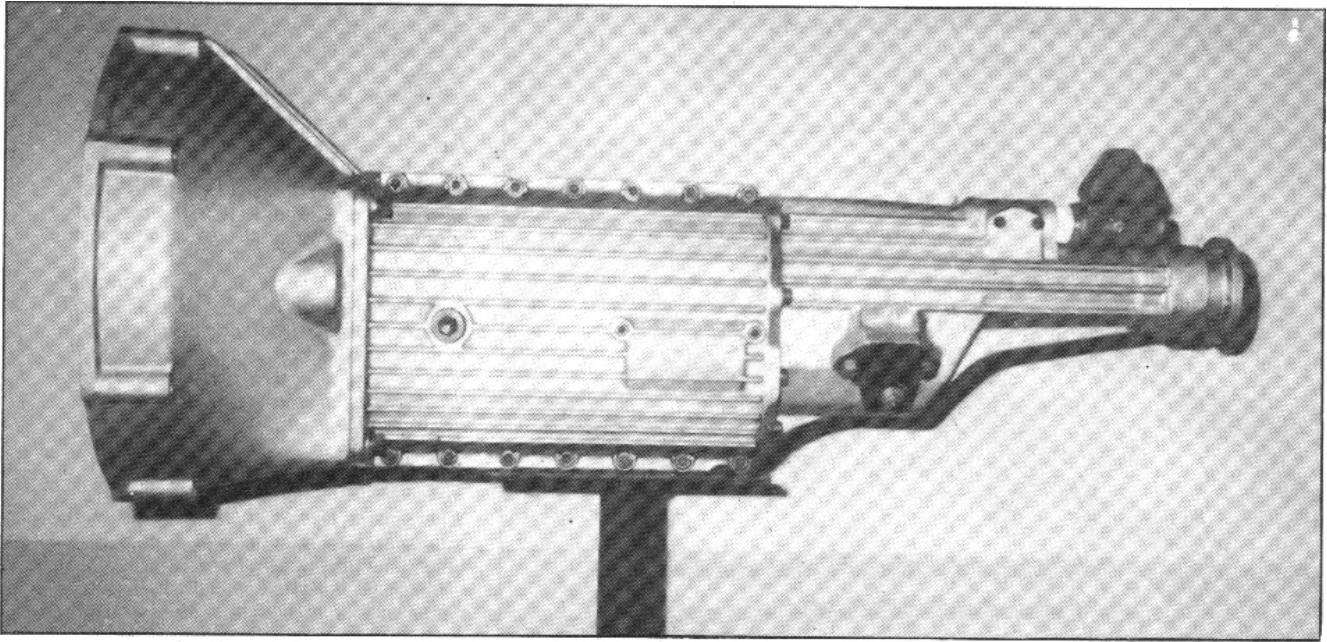
round the top hose, which thus has to come off for a belt-change.

The installation is very neat, there being no clue as to the car's specialist nature and no impression that the engine is too big for the bonnet space. Mike's car is a workhorse, so underbonnet presentation is not in the concours class, plenty of Waxoyl having been applied to the panelling. Jim Adamson's engine, on the other hand, has obviously received plenty of loving care, so the immediate impression is one of quite a difference in the actual installation. In reality, however, the dissimilarities are few. In brief, though, the obvious points are twin SUs and cast-iron exhaust manifolds on the MG, against the Costello's Weber and tubular pipe-work, while the special MG radiator is mounted further back than the conversion's MGC item and separate header tank.

Problems have apparently been few, although the engine has previously had a complete rebuild. A Quaife limited-slip differential sits in the rear axle casing, this being cheaper than a standard replacement, believe it or not.

Outside, a special grille and additional badges front and rear distinguish the Costello, which sits on Rostyle wheels and 185/70 x 14 Firestones (alloy centres, steel rims and 175 x 14 tyres on the MG).

Being one of the last B V8's Jim's car is a rubber-bumper car, which has its ride height considerably raised over the earlier



models, to satisfy American whim.

First of all, the excellence of that venerable V8 shines through in both cases; it generates plentiful smooth power, with giant helpings of torque low down the rev range to send the cars surging forwards at a touch of the loud pedal. Mike is aware of a vibration in his engine, around the 2500rpm mark, which he puts down to incorrect pistons being used in the rebuild, but this does not hide the fact that it has the performance edge over the works car's unit, both in response (probably due to lightening and balancing usually carried out by Ken Costello) and ultimate urge.

Most impressive is a lack of any resonances, shakes or shudders that so often mar after-market conversions. The gear lever is in its standard position and the crisp change has a very narrow gate; although the factory set-up, while being slightly sloppier, actually left us in no-man's land less frequently.

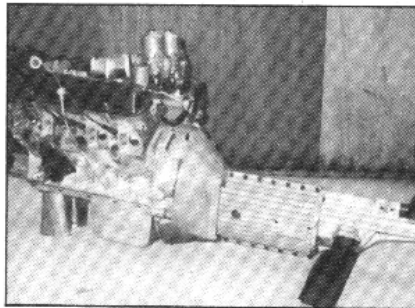
Engine positions are just about identical, so weight distribution must be the same; yet handling is definitely sharper, with greater steering precision, in the Costello; we must bear in mind, of course, the raised ride height of the Abingdon car.

'Proper' V8 front brake discs are thicker than the 1800 type, with different calipers, but the lesser type, still worn by the Costello, seem to work just as well (Ken used to fit harder pads if very high speeds were envisaged).

It is not difficult to see why the Costello conversion finally set the monolithic BL empire to work on a new model; it turned the overweight and underpowered B into a much more interesting machine.

It's gearboxes that have taken up most of Ken Costello's time since the V8 project came to its end — or one particular gearbox to be precise. In the mid 1970s, he fitted Rover engines to a few otherwise dead Stags, but he was already developing a five-speed 'box to fit in the MGB — with four- or eight-cylinder power.

Towards the end of the decade he took three partners, who subsequently changed the name of the organisation to The V8 Conversion Company. The liaison ended in



*Since the V8 conversion work ceased, Ken Costello has been working on a five-speed gearbox to fit the MGB, in straight-four and V8 form, and many other cars, too. As the pictures show (above), it has a neat cast-aluminium casing. It is a straight swap for the four-speed gearbox and keeps the gear lever in the correct position. The prop-shaft flange and speedo drive pinion are taken from the original set-up to keep costs down. Production should start soon.*

acrimony; one of the partners pulled out — and is now a professional pilot — while legal action by Ken Costello over some disputed property ended the partnership.

Thus it is Costello Gears Ltd that is currently very close to proper production with the new gearbox. Everything about it, apart from minor items like bearings, is purpose built, with gears and shafts manufactured to F1 specifications. The cast-aluminium casing divides vertically, thus making assembly and repair easy, and the unit is 20lb lighter than Rover's SD1 box.

Just as important, it will be priced below the Rover component and it will fit directly in place of the four-speed MG 'box. As a bonus, clutch changing becomes a far simpler task.

There are two sets of ratios, one for the 1800 and one for the 3.5, all of them — including reverse — having synchromesh.

For the moment, development continues, but we look forward to trying the unit soon. In the meantime, the Costello name lives on in the excellent V8s. ■

