



COLLECTOR'S EDITION

THE ULTIMATE GUIDE TO

TRIUMPH TR2-TR4A



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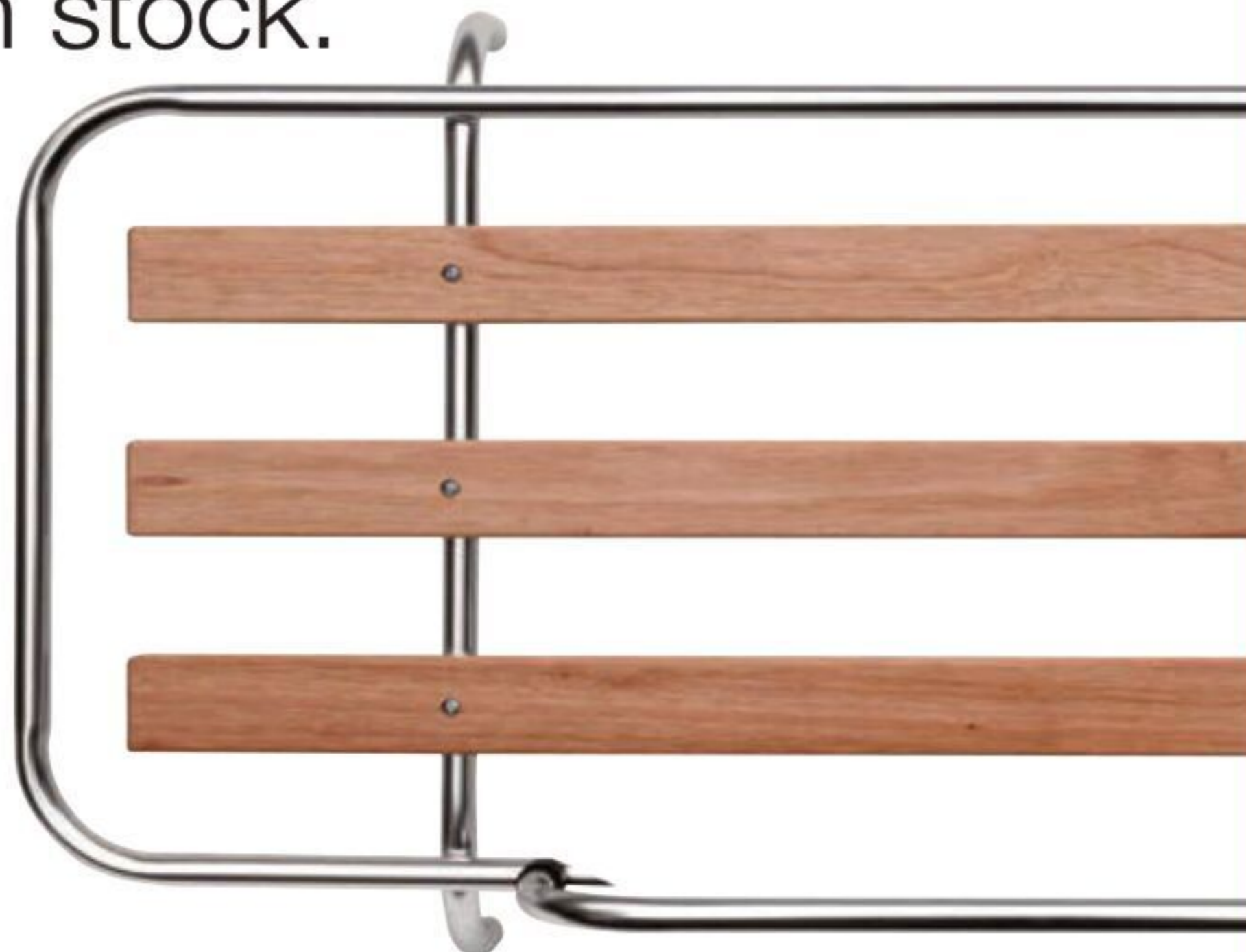
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THE ULTIMATE GUIDE TO

TRIUMPH TR2-TR4A

Kelsey Publishing Ltd, The Granary, Downs Court,
Yalding Hill, Yalding, Kent, ME18 6AL

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3rd Floor, 161 Marsh Wall, London.E14 9AP

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AND THE REPUBLIC OF IRELAND****NEWSPREAD**

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PRINTING

Pensord

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WELCOME

The Triumph TR series is one of the most evocative British sports cars of all time. With chassis design that inspired the Daimler SP250, a solid and reliable four cylinder engine and purposeful styling, it had an undeniable appeal among those looking for something more up to date than the MG T-series Midgets.

And they were good value, too - even alongside the later MGA the TR offered an impressive amount of torque, and its popularity never waned. Rivals MG had to replace the T-series with the MGA and then that car with the MGB before Triumph's formula needed to change, and even then a new set of clothes and independent rear suspension were all it took to prepare the TR series for a fresh new decade.

And while the six cylinder engine fitted to the TR5 and TR6 might have added power, it also brought complexity to the TR range courtesy of the extra cylinders and the Lucas PI system. The four pot cars with their engine derived from the Standard Vanguard were simple, hardy machines with charm of their own; proof positive that a proper sports car can have four cylinders and still offer sterling performance. While those last TR4As might have had the IRS of the later models

and the swish Michelotti shell, they still had the same chassis and the same character as the TR2 of 1953.

And today they still drive every bit as well as they did in 1953. They're still entertaining, they still corner nicely, they still turn the heads of every passer by. The four cylinder TRs might have been overshadowed by the TR5 and TR6, in the past but they've never been more desirable than they are now. A combination of modern world stress and the restrictions under which we've spent the last two years have meant that simple old world charms have never been in greater demand. And we've got the lot here, we've seen some of the finest examples on road and track, we've delved into their history to learn the facts, we've looked at the things you never knew and brought together all the best advice for would-be buyers.

The Triumph TR series is that rare thing, an accessible and practical classic sports car with excellent parts availability, an ardent following and which offers great value. And this bookazine is our celebration of the car. We hope you enjoy reading it as much as we enjoyed making it. ■

SAM SKELTON EDITOR



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TRIUMPH TR2-TR4A



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TRIUMPH TR4-TR6 (1961-1976)

Despite having roots in the 1950s, the Triumph TR4, TR5 and TR6 models were a success story for the company right into the '70s despite increasingly modern competition. We bring you the details.

Words **PAUL WAGER**

The last of the traditional TR models was built in 1976 when the final TR6 left the Canley production line, but it represented the last of a family which could trace its ancestry back to the early '50s. In

true British motor industry form, Triumph had managed to take the basic design introduced with the TR2 in 1953 and stretch its lifespan to an impressive 23 years. Along the way it gained wind-up windows, independent rear suspension, a couple of

extra cylinders and fuel injection and still managed to remain competitive in the face of much more modern opposition. Indeed, the TR7 which followed was a far more modern design but by comparison lasted just six years in the market and failed to capture the



imagination in quite the same way despite being better to drive.

TR3

The story of the TR4 and all the later TRs really begins with the TR3, which was itself descended from the short-lived TR2. The original production TR, the TR2 was a toe-in-the-water exercise by Standard-Vanguard boss Sir John Black who fancied a share of the sales enjoyed by MG and Jaguar with their new sports cars... and who was also smarting after being rebuffed from his attempts to acquire Morgan which at the time used Standard's engines.

After a couple of years the TR2 had proved its worth and so was evolved into the more developed TR3. The TR recipe was a simple one: a simple but strong steel ladder chassis with swooping roadster bodywork and a tough four-cylinder engine and running gear taken from the firm's saloon range.

It was brisk, reliable and affordable, proving a sales success throughout the →





1950s and no period motorsport photo is complete without at least one tweed-jacketed TR3 driver, elbows wrestling at the wheel visible through those trademark cutaway doors.

By the early '60s though, the game was moving on and the TR3 was looking increasingly old-fashioned with its side screens and upright styling. Triumph however, lacked the resources to develop an all-new car, the solution instead being an extensive update of the successful TR formula.

TR4

The result was the TR4, which entered production on July 18, 1961. The major difference was a modern new body styled by Triumph favourite Giovanni Michelotti which dispensed with the sidescreens in favour of full doors with wind-up windows and a more modern folding hood assembly. The overall width of the new body was sufficiently wide for the 'elbow' cutaways in the doors to be no longer necessary.

Underneath the bold new style though could be found the chassis from the TR3, albeit in modified form to accommodate the new, wider bodywork. The track was some three inches wider at the rear and four inches at the front, which was achieved by using longer halfshafts and welded-on extensions to the chassis.

The chassis was also adapted to accommodate the TR4's new rack and pinion steering set-up, while the 2-litre engine was taken out to 2138cc and synchromesh was added to first gear. The rest of the running gear was taken over largely unchanged from the older car and early TR4's even retained the TR3-style seats.

The end result was a car which was far more civilised than the old TR3, even if its extra weight did mean it was no faster. It nearly didn't happen though: during 1961, Triumph was absorbed by Leyland and the new management almost axed the project on cost grounds, anxious to see resources →





YOU DIDN'T KNOW

- The TR4 swapped from SU carburettors to Strombergs in 1962. The SU company was owned by rival maker BMC which no doubt prompted the move. It was also rumoured that MG was paying half as much for its carburettors as Standard-Triumph.
- TR bodies were assembled in Triumph's facility at Speke and then transported part-trimmed to Coventry for assembly by road.
- Part of the reason for the well-documented failure of the Lucas injection pump is that it was in fact a modified wiper motor and not really up to the task, especially when sited above the hot exhaust.
- The TR6's Kamm-tail styling may look like the Michelotti-styled Triumph saloons but was in fact styled at Karmann.
- The TR4 was optionally available with the TR3A-spec 1991cc engine for owners wishing to race in under 2-litre classes.
- Body plates in TR4s will state the maker's name as Standard Motor Company Limited but from the TR4A onwards it was frequently changed. You'll see Standard Triumph Motor Company Limited, Triumph Motor Company Limited, Triumph Motors British Leyland UK Limited and Triumph Motor Company.
- For owners hardy enough to use their TR6s through the Canadian winter, a special 13-plate battery was an optional extra.
- Most cars supplied from new with a factory hard top didn't come with the convertible hood or its tonneau cover. A conversion kit could be bought as an accessory.
- Low-compression engines were an option from new on cars used in parts of the world where high-octane fuel was unavailable, but a retrofit kit was also available, comprising a simple spacer plate and longer pushrods.







channelled into the commercially important saloon car range.

The Leyland men needn't have worried though: demand was strong and waiting lists soon developed when production couldn't keep up. As a stop-gap measure, an updated version of the TR3, dubbed 'TR3B' was temporarily reintroduced for the US market using the 2138cc engine from the TR4. Both TR3A and TR3B are commonly used today but neither were official Triumph designations.

TR4A

One criticism of the Triumph TRs as road cars was their harsh ride, a result of the limited rear axle movement and leaf-sprung set-up. An independent rear suspension set-up had originally been under development for the TR4, but pressure to get the new car to market had seen it launched with the live axle.

In 1965 the IRS was finally ready and was launched as the TR4A, the first cars produced on January 5, 1965. Using coil springs and trailing arms, it provided greater wheel movement and a softer ride, but without the tricky camber changes of the Herald-derived cars' camber change.

The introduction of the new suspension saw the biggest chassis change in the TR's lifespan. The rear section was redesigned to accommodate the suspension mounting points and in the process the chassis was narrowed in front of the rear suspension area. In theory this makes it less rigid than the pre-IRS cars, which explains why these are preferred by the classic rallying brigade today.

Detail changes were also made to the bodywork at the same time, while the engine power was also increased slightly courtesy of new cylinder head, inlet and

exhaust manifolds and camshaft to the tune of 104 bhp.

In an echo of the older TR3B, a special model was once again developed for the US market. It was felt that the increased complexity and cost of the IRS-suspended car may not be well received by US buyers and so a live-axled version of the new cars developed. Rather crazily, rather than employing the older live-axled chassis this involved adapting the new IRS chassis to take leaf springs and solid axle and it's suggested that around one third of cars sold in the US market were the live-axled model.

TR5

By the mid-'60s, the Triumph four-cylinder was nearing the end of its development life. Originally developed back in the 1940s for the Standard Vanguard and similar to the →





unit provided by Standard for the TE tractors it produced for Ferguson, it was a solid and dependable unit but lacked the sparkle to compete with newer, more complex designs. The TRs had gained weight over the years and the result was that the TR4A was no faster than the TR2 of 1953.

A short-lived experiment with a twin-cam four-cylinder in the mould of Alfa Romeo resulted in the 'Sabrina' engine which powered the TR4A 'S' Le Mans racers from 1959 to 1961. An all-alloy unit, it proved too complex for production and a simpler alternative was simply to raid the parts bins for a more muscular production engine.

The answer was to add a couple of cylinders and the 2-litre straight-six engine used in the Vanguard Six and Vitesse was taken out to 2.5 litres courtesy of an increased stroke. With a 12-port cylinder head and Lucas mechanical fuel injection, the result was 150 bhp and 164 lbf.ft torque which at a stroke transformed the car's performance and gave it a more exotic soundtrack too. Intriguingly, a fuel injection

system had apparently been developed for the four-cylinder Triumph engine by Tecalemit-Jackson but was never progressed to production form, although the firm did offer aftermarket injection kits, mainly used in racing.

Badged as TR5, the new car entered production on August 29, 1967 and as with previous TRs, the US market got its own special version. In the case of the TR5, the Americans were obviously no longer scared by the complexity of independent suspension but their TR5s – badged as TR250 – lacked the newfangled fuel injection, running twin carburettors instead. It was claimed by Triumph that this was a move dictated by emissions requirements but it's also been suggested that the cost of the injection system might have been a contributory factor for what was marketed in the US market as an affordable sports car. The unfamiliarity of US mechanics with fuel injection and the potential heat problems in some hotter states were also no doubt considered. →

The bodywork was very similar to the TR4A, cost concerns limiting changes to a modest facelift centred around a revised grille. The bonnet bulge remained although the lower overall height of the six-cylinder engine meant it was no longer needed.

TR6

The recipe of familiar TR underpinnings and muscular straight-six engine proved to be successful and Triumph management realised that the design still had plenty of life left in it yet. Accordingly German coachbuilder Karmann was enlisted to provide a facelift body style while retaining as much of the original structure as possible.

The time frame allowed was brief, but Karmann came up with the goods in the

form of the TR6 which successfully grafted new front and rear ends on to the car while retaining the centre structure including the doors and screen. The sharply truncated 'Kamm' tail rear end style mimicked the Michelotti-styled Triumph saloons of the era and was a neat way of updating the car at minimal cost.

As with the TR5, the TR6 was offered in fuel-injected form for Europe and with twin carburettors in North America, the first carburetted cars produced on September 19, 1968 and the injection cars beginning on November 28.

The 150 bhp UK-spec cars were brisk indeed, but carb-fed US-market TR6s were a pale imitation: an air pump, exhaust gas recirculation, milder camshaft and 7.5:1 compression ratio knocked power down to 104 bhp, although many owners rectified this with tuning work.

Meanwhile, back home the CR-series cars produced from the end of 1972 received a milder camshaft as a reaction to customer complaints about the difficulty of keeping the cars in tune and their temperamental nature. The result was a reduction in peak power to 124 bhp but improved driveability.

Overdrive became standard on the injection cars from 1973 but remained optional on the carburetted cars.

The last TR6 left the production line on July 14, 1976 and represented the end of the separate-chassis TR range which by then was into its third decade. Its replacement the TR7 was a very different animal indeed and despite flowering later in life in V8-engined convertible form, was destined to be the last TR produced. ■



THE MARKET

The TR was a strong seller throughout its life, sitting somewhere between the MG models and the more expensive Austin-Healey and Jaguar offerings. Strongest seller of the lot was the TR6, which boasted a total of 91,850 units, followed by the TR4/4A with 40,253. Just 11,431 of the short-lived TR5/TR250 were produced.

Of the total TR4-6 production, over 90 per cent was despatched abroad with 4449 TR4/TR5/TR6 cars assembled overseas from 'CKD' kits in Belgium and a small number of TR4s in Ireland.

The Press

Despite the age of the underlying design the press generally loved the TRs. Over in the USA, Car & Driver reckoned that the TR4 was a better-handling car than its predecessor even without the optional IRS.

Motor magazine, testing the TR5 in 1968, loved the fuel-injected six, an engine they described as "a magnificent power unit."

"Once above its rather lumpy idle," they reckoned, "it explodes its torque on to the road with effortless ease." Road testers were made of stern stuff in those days and the Motor boys quite happily talked of maxing the TR5 out at 117 mph on a French motorway... and were disappointed to find the car was 4 mph slower with the roof down. Rather than me.

They liked the handling too. "The TR5 is essentially a car which goes where it is pointed," was the verdict, pointing out that the new IRS made it "difficult to provoke the rear end into sliding on a dry road."

By the time the TR6 was on the market, the age of the design was showing but testers still warmed to the car's honest appeal. "It's remarkable that in 1971 a volume-produced car like the Triumph even has a chassis," reckoned CAR in a Giant Test comparing it with the Lotus Elan. They found the Elan to handle and go better in Sprint form but in view of its fragility and twitchy wet weather handed down the verdict that the TR6 was the better sports car to live with.





TECH SPECS

Model	TR3	TR4	TR4A	TR5	TR250	TR6 CP	TR6 CR	TR6 CC carb	TR6 CF carb
Engine	1991cc	2138cc	2138cc	2498cc FI	2498cc carb	2498cc FI	2498cc FI	2498cc carb	2498cc carb
Max power (bhp)	100/5000	100/4600	100/4600	150/5500	104/5500	150/5500	125/5000	104/4900	106/4900
Max torque (lbf.ft)	118/3000	127/3350	127/3350	164/3500	143/3000	164/3500	146/3500	142/3000	133/3000
Transmission	4sp manual with optional overdrive								
Suspension	TR4: leaf springs, live axles rear, wishbones and coil springs front. TR4A/5/6: independent rear suspension by trailing arms and coil springs								
Brakes	Discs front, drums rear								
Length (cm)	384	396	396	396	396	395	395	395	395
Width (cm)	141	147	147	147	147	155	155	155	155
Height (cm)	127	127	127	127	127	127	127	127	127
Kerb weight (kg)	949	965	965	965	965	1130	1130	1130	1130
Max speed (mph)	106	102	102	117	109	119	116	111	111
0-62 mph (secs)	12.0	10.9	10.9	8.8	10.6	8.2	9.5	10.7	11.5

TRIUMPH TR2/TR3/TR3A BUYERS GUIDE

It took a long time for Standard-Triumph to get it right when they tried to break into the post-war sports car market, but the TR2 was worth the wait. It proved to be rugged and powerful, the beautiful lines being icing on the cake, but what's the story nearly seven decades on?

Report by Rod Ker



Triumph's post-war range had rather inauspicious beginnings. In 1945, when the Standard Motor Co took over the remains of Triumph, John Black, its uncompromising boss, decided that the recovering world needed a sporty car that would tempt Americans to hand over their precious dollars. Export or die was the Government's mantra, applicable to industry in general, and especially the automotive division. No military orders, so the huge unused factories dotted around the midlands would be making cars.

MG at Abingdon had been doing exactly that when the WD handed back control, having launched the somewhat quaint TC within weeks of the end of hostilities. That was possible because the TC was essentially a 1930s car, wooden frame and

all. Even then, steel unitary construction, as per the Morris Minor, had been recognised as the future.

Meanwhile, Standard had a couple of designs taking shape, the sporty model being known simply as the Roadster. Like the MG, it had a distinctly old fashioned air, and relied on obsolete mechanical parts. Initially, power came from the 1800 four previously supplied to SS (Jaguar), but after a year that was supplanted by the all-new wet-liner engine most often seen in Massey-Ferguson tractors.

Or, at least, it was a close relation of the 'Little Grey Fergie' power unit. Chicken and egg arguments continue about what came first, but it seems that the two were developed simultaneously, then followed different paths (the tractor version was actually a 'monocoque', as reinvented by F1 and not to be confused with unitary construction)

and ended up on different production lines. As it happened, there was far more need for tractors than cars, reflected in sales figures over the next decade or so.

The Roadster was put out to grass in 1949 with around 4500 made. Not a huge success, but expectations were modest. Sir John Black once again requested that his minions would construct a proper sports car. The goalposts had been moved by then, leaving a clear gap in the market between the new Jaguar XK120 and MG TD. There were others as we moved into the '50s, including the Austin Healey, of course, as created by a former Triumph luminary in conjunction with Len Lord of BMC.

As an aside, evidence that Sir John was less of a tyrant than imagined arrived in 1949, when he agreed to supply the new wet liner engine to Morgan, despite or because of his attempt to buy the Malvern company being rejected. —>





Things became complicated after that, when three part-complete TRX prototypes materialised, although it's said that Black denied any knowledge of at least one! Moving swiftly on, the succeeding 20TS '2litre Sports', (often referred to as TR1) took shape, borrowing suitable parts from the Mayflower saloon, including the front suspension and brakes. Time and money were in short supply, but somehow the new sportster was finished by 1952 and made its debut at the Earls Court Motor show in October.

'Finished' apparently isn't the right word, as was discovered when the prototype was inspected and driven by the Press a few weeks later. The styling was typical of post-war Triumphs designed by Walter Belgrove,

which all came with a dollop of Marmite, but beauty is in the eye of the beholder. The wet-liner engine had already proved itself, and could soon be persuaded to produce more than the initial 75bhp. On the minus side, the handling was reported as dreadful, demonstrating that a bodged and weak pre-war chassis just wasn't fit for a 100mph roadster. As things stood, perhaps the limited power available was a blessing!

Back to the drawing board went Triumph, with help from newly-employed race and development ace, Ken Richardson. The would-be TR2 was extensively modified, both on the surface (e.g. lengthened tail) and underneath, where the ladder chassis was much stronger. Virtually the same hefty

chunk of welded steel lasted until 1961, when the Michelotti styled TR4 arrived, complete with avant garde wind-up windows. These are outside the scope of this guide, but briefly, 1965 gave us the TR4A with its more complicated Independent Rear Suspension, followed by the six cylinder TR5/250/6 models, which survived until 1975, when the totally new TR7 wedge materialised.

CLASSIC AFTERLIFE

Separate chassis Triumph TRs were some of the first cars to receive the classic seal of approval. After years in the wilderness, the 1980s saw increasing interest in ye olde wind in the teeth British sports cars. Suddenly, it seemed that even tatty TRs were worth thousands rather



than hundreds. Repatriation, mostly from the USA where the majority were originally sold, became big business, and an army of specialists sprang up.

Supply and demand ensured that virtually every part was available, for a reasonable price. Purists didn't like it, but bolt-on fibreglass wings and bonnets were very cheap and performed their function, the snag being that they couldn't be attached to air or rust!

BODY & CHASSIS

In the early classic era, c1980, it was commonly assumed that TR chassis were virtually immortal and usually required minimal repairs even when the external body panels were flapping in the breeze. —>





Not so. But 30 to 40 years later the situation has changed again, as most cars have been restored at least once, and it's highly likely that some of the main box sections will be touched by the tin worm.

The possible exceptions are genuine 'dry state' export models. You might have to suffer sun damage and the steering wheel on the wrong side (although that can be changed, at a price), but any car that spent its early life in southern California is likely to be worlds better than one that stayed in the vicinity of Coventry for a quarter century. Having said that, there are plenty of American states that have worse weather than soggy Britain, so make sure you know what you're looking at, backed up by paper history.

The best way to inspect a car (not when wet) is to circle it gradually, noting how the panels fit, or don't. Ripples are bad news, and on any convertible the doors give the game away as the body sags through weakening by rust. Then open the bonnet to look for signs of damage and peer into the spare wheel slot (which was intended to house a 5.50-15 crossply, modern 165-15 radials are a tight fit). Athletic types will be able to lie on the ground with a torch and see what might be afoot. Tapping with a blunt instrument will identify corrosion.

Then inspect the commission number plate, Triumph's quaint version of a VIN, which shows coded information relating to the original attached vehicle (eg. 'O' for overdrive, 'L' for LHD), but doesn't include

a chassis number. It should tally with the car's apparent credentials, but in a way that doesn't mean much. Anyone can rivet an alloy plate to a bulkhead, after all!

It's fortunate that Triumph ditched the ancient pre-war chassis used in the prototype, because it would almost certainly have rotted away and distorted in a few years. Instead, the production TR2 was based on thick steel main rails, aided by round crosstubes at the rear, with extra bracing from a cruciform section brace in the centre. The sills in particular were part of the strengthening structure, not just cosmetic, and six pairs of engine/body/suspension mountings were welded along the rails. Again, it was never the case that a TR was roadworthy so long as the main rails were solid. It's all structural really, and can't be ignored!

The slightly better news is that engine oil leaks accidentally preserve the front chassis. Alas, the differential and lever-arm dampers couldn't muster enough leaked lube to do the same at the back, where spring shackles could part company with rotten brackets. Both ends of the TR2, with its minimalist attitude to bumpers, were vulnerable to accident damage and misalignment, which didn't help the handling, as one can imagine.

If that sounds bad, think what it's like when the bracket spot welds start to split apart and the entire front end begins to break free, which can happen. MoT testers would have spotted potential disasters like this until



recently, but 60 year old sidescreen TRs are exempt now. Still, while we can point out potential problem areas, putting a car on a proper ramp and viewing things from below will likely reveal plenty more. Some of this could be serious, and might explain why the car is for sale, and its price. While there may be no obligation for 40 year-olds now, a car with no MoT might raise suspicion. If you were selling an expensive TR, surely it makes sense to spend about £50 on a test first? It might make thousands of pounds of difference.

On a general note, prospective buyers of alleged cheap or bargain restoration projects should be wary – at some stage the decision will have to be made about whether separating the body and chassis will be necessary. Obviously this is a major commitment, requiring hundreds of person-hours, a large workshop, plenty of expensive kit and some friends who like weight lifting.

There are different approaches: either brace the tub using angle-iron, or cut it in half. Either way there's a chance the body and chassis will go floppy and never the twain will meet again – especially if they've been sandblasted, which will zap away metal as well as rust. Luckily, specialists like Revington can supply or recondition a chassis made on a jig, which effectively becomes your jig to build the rest of the car. Alternatively, it is possible to buy a bodyshell, but it would be naive to expect it to drop onto the chassis and bolt down in a trice. Things didn't work like that in the 1950s.

Either way, the expense is huge, even if you value your own time at £0 per hour. Sadly, plenty of home rebuilds stall after the initial gung-ho stage, hopefully to be rescued by professionals, maybe those TV miracle workers who can apparently turn a rusty hulk into a gleaming classic in a couple of weeks. If all this scares you off DIY restorations, then good, because it's quite possible to spend tens of thousands on a ground up rebuild, then end up with a car worth less. OK, you won't get the same job satisfaction or sense of achievement, but the smart money ends up with those who let someone else pay for the work

ENGINE AND TRANSMISSION

Contrary to lore, you can't swap a broken TR engine for one found in an unsuspecting Massey Ferguson, but a dud motor is less of a problem than a rotten body. Not much happened to the wet liner four between 1953 and 1961. The TR2 began with 1991cc and 90bhp, fed by twin 1.5in SU s. Continuing with the 'low port' head, a bigger 1.75in pair of carbs boosted later TR3s to 95bhp. Updated 3s gained a new type of 'Le Mans' head, →





while the 'high port' version gave 100bhp. Finally, a 2138cc unit developed for the TR4 was available to order.

All the engines were renowned for their frugality (71mpg in Mobil Economy run), reliability and longevity. Said to be inspired by Citroen's pre-war wet liner four as seen in the Traction Avant, 100,000 miles without major attention was common. Whether this was a direct result of the wet liner configuration, or just due to sound engineering generally, we will never know. In its day, the stroke was quite short for a displacement of around two litres, but TRs were more about low revs torque than power, which peaked at under 5000rpm.

However, it became apparent that the four could be tuned to yield about 30% more horses without exploding (the engine, not the horses). Standard fans will know that

the same treatment from Ian Kellett Racing even turned the Vanguard into an unlikely track car, as seen at Goodwood, Silverstone and elsewhere.

On a more prosaic level, oil leaks are not unknown, particularly from the rear crank seal and timing cover area, which on the bright side kept rust at bay, as already described. Wet liner engines can also leak water internally and externally. Excessive pressure in the crankcases is not a good omen. On the practical side, the possibility of replacing the liners rather than reboring cylinders in blocks was/is a boon. Cheapskakes could save even more time and cash by turning the liners to present a less worn side to the piston!

The four-speed transmission is equally tough, if not refined. Early models lacked synchro on first, causing occasional teeth gnashing. Overdrive makes a TR a relaxed

cruiser – still a noisy one, but some of that could be down to a single box exhaust. The later twin-box system will reduce ear bleeding. Incidentally, the exhaust went through the chassis, giving about 6in of ground clearance. That's around 5in more than an Austin Healey...

SUSPENSION AND STEERING

Nothing fancy here. The rear end was a simple live axle with very little travel, controlled by lever-arm dampers, while the front was a compact double-wishbone affair with coil springs and telescopics. The latter was similar to the later Herald family cars and suffered the same ills – failure to lubricate the bottom trunnion could result in the threaded upright shearing off. Fortunately, it happens mostly at low speed when locked over. It's a mystery why Triumph recommended grease for the TR, but only gear oil for the Herald.





Sidescreen TRs were handicapped by a vague cam and peg steering set-up, operated by a massive 17in Bluemel tiller. A rack and pinion conversion can transform the handling, as the steering geometry is improved.

BRAKES

The TR was noteworthy for being the first production British car to have disc brakes as standard. Contrary to rumour, it wasn't the first to use discs, however, that accolade going to Chrysler in America, although a 1938 Miller racer apparently had both discs and 4WD. The Jaguar C-Type also beat Triumph to it, but that was hardly a car you could buy by normal means. In 1955 Citroen's DS was another pathleader.

Some early development testing for Triumph took place at the 1955 Le Mans, where one works TR2 entered had Dunlop

discs all round, the other car front Girling 'bacon slicers', with rear drums. A year later at Earls Court Sir John announced that the forthcoming TR3 would come with Girling front discs, which caused a stir.

As in the Jaguar XK world, functional improvements are accepted in TR circles, so disc brake upgrades are common. Using parts from later models is one way forward, but there are compatibility issues. The alternative is to bite the financial bullet and buy a complete conversion kit for around £1500. Going further, 4-pot calipers and rear discs are available.

INTERIOR AND ELECTRICS

Surprisingly, leather upholstery was initially optional, probably as part of the drive to give the TR2 a \$2000 price tag. On the 1953 electrical side, there are very few wires connecting very few components through fuses that offered little circuit protection, but the dash was functional. Evidence that drivers didn't trust Lucas was provided by a starting handle that went through the radiator before hooking into the crank. Oil pressure should be 70psi plus, btw.

WHAT TO PAY

How much? As much as your bank manager can afford sounds like a flip answer, but a genuinely good car can in the long run be cheaper than one needing work. You see it in auctions all the time. Prices have crept up through the £20k and £30k barriers for the best examples, and this year a rather special 1954 TR2 sold for £52,800 at Barons. At the other end of the scale, £5000-£10,000 will buy a restoration project with LHD. ■



BRIEF LIVES

July 1953

Modified TR2 clocks 125mph on Belgian Jabbeke autoroute and goes on sale. Long doors that can hit pavements, 'bomb crater' intake. 90bhp at 4800rpm, 103mph, 903kg

November 1954:

shortened doors and stronger sills, wire wheels and hardtop options. 95bhp at 4800rpm, 105mph

October 1955

TR3 supersedes TR2 after sales of 8628, 949kg

Sept 1956

Engine uprated to 100bhp, front disc brakes

Sept 1957

Unofficial TR3A arrives after sales of 13,400. Full width radiator grille, improved trim and seats

1959:

2.2litre engine option, 100bhp at 4600rpm. TR3A sales 58,200

Sept 1961

TR4 replacement launched, although unofficial 'TR3B' continues to be sold in US for another year, totalling another 3300. All-synchro gearbox



TRADITIONAL FAYRE

We revisit two traditional roadsters which share more than just their 1950s heritage.

Words **NIGEL CLARK** / Photography **MATT WOODS**



Two seats, four cylinders and gloriously curved bodywork – that’s the tried and tested formula for the archetypal classic British sports car. Austin Healey, MG, Triumph and others flourished using this basic recipe in the years before and after the Second World War, then all except one of these designs perished, as fashion changed and the motoring public demanded more sophisticated vehicles.

The survivor of course is the Morgan 4/4, still built at the original Malvern premises to this day. Founded in 1910, the Morgan Motor Company made only three wheelers for many

years, launching its first four-wheeled car in 1935. To give a chronological perspective, this was a year before the first of MG’s hugely successful T-Series cars rolled out of the Abingdon factory, though their earlier Midgets had been around since the late Twenties.

Nowadays, new Morgans are still available but the waiting list for new cars has long ensured that second-hand cars hold their value. By coincidence, the high residual value of used Morgans puts them in a similar price range to many well-restored Fifties British sports cars. A classic buyer with a budget of up to £30,000 faces an intriguing

conundrum: whether to splash out on a restored sixty year old Brit, or go for a more recent Morgan. By comparison, prices for brand new Morgans currently start just at under £40,000, if the buyer is willing to wait 6 months for delivery.

Both cars offer the same formula and style, but do the more modern mechanicals of the Morgan offer advantages over Fifties engineering? Can any car truly compete with the Morgan’s iconic silhouette, and which makes the best classic ownership proposition today? We find out by comparing a 1990 Morgan 4/4 with a Triumph TR3 from the Fifties. →





The most significant changes to the 4/4 through the years have been with engine supply. Originally the Morgan was powered by an 1,122cc Coventry Climax engine. Since then, power plants from the Standard 10, various Fords and more recently Fiat have been fitted under the Morgan's long bonnet. The Ford-powered cars are most numerous and are likely to utilise either a Kent 1600 crossflow engine or a later CVH 1600 overhead cam unit.

Any discussion of Morgan technicalities would be incomplete without mentioning the unique sliding pillar front suspension. This design feature or quirk, take your pick, has endured through the car's extended lifespan and simultaneously provides for suspension travel and steering swivel. Stub axles slide up and down a steel pillar on bronze bushes, supported by coil springs and controlled by separate dampers mounted parallel to the pillar. The pillar on which the bushes slide is exposed to the elements and can corrode and wear quickly, even when frequently lubricated.

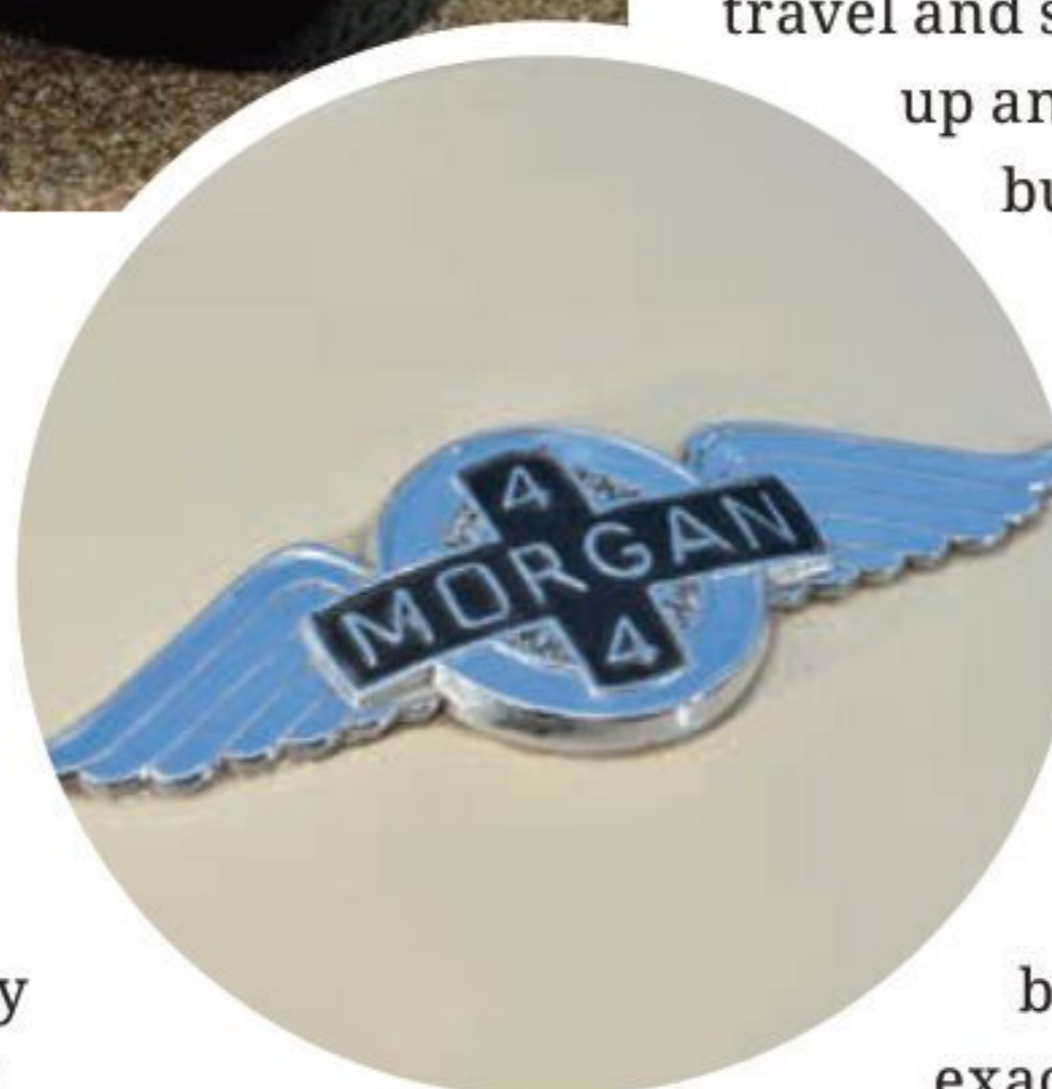
Overhaul is a tricky task, as new bushes require skilled reaming to exacting tolerances; budget around £700 to replace both sides. Rear suspension is conventional, with a leaf-sprung live axle.

The well-preserved Morgan posing for our photoshoot today is owned by John Adcroft, proprietor of Suffolk-based Open Top Touring, who hires the Morgan and a fleet of other cars out to clients looking for a classic driving experience. John's Moggie was built in 1990 and proves very popular, working hard as a hire vehicle. He explains 'it has huge kerb appeal and it's very popular



MORGAN 4/4

Morgan 4/4 production has run almost continuously from its introduction in 1935 to the present day, with interruptions only for the war years and briefly in the early Fifties when engine supply dried up. For over eight decades, little has changed, all cars being hand built with an ash-framed metal body mounted onto a steel chassis frame. Most 'updates' have been driven by outdated parts ceasing to be available, or legislation forcing improved crash worthiness and lower exhaust emissions. The 4/4 designation indicates four wheels and four cylinders; there is also the Plus 4, fitted with a larger four pot motor.



as a wedding car, as everyone knows of the Morgan'. Talking of aesthetics, can any car match the sheer Britishness of the Morgan's front-end with sloping chrome grille, instantly recognisable winged Morgan motif, cowled headlights and long louvered bonnet?

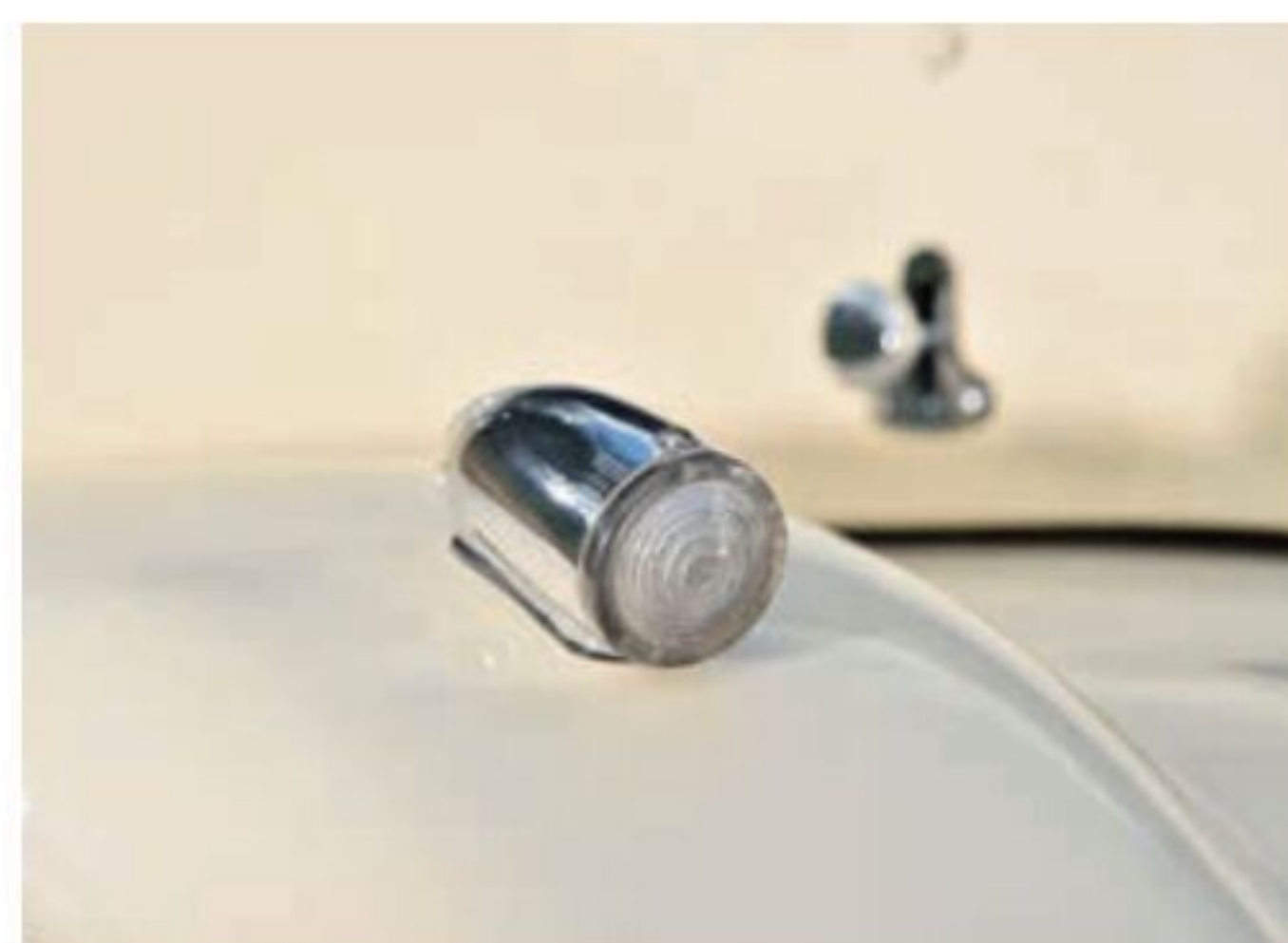
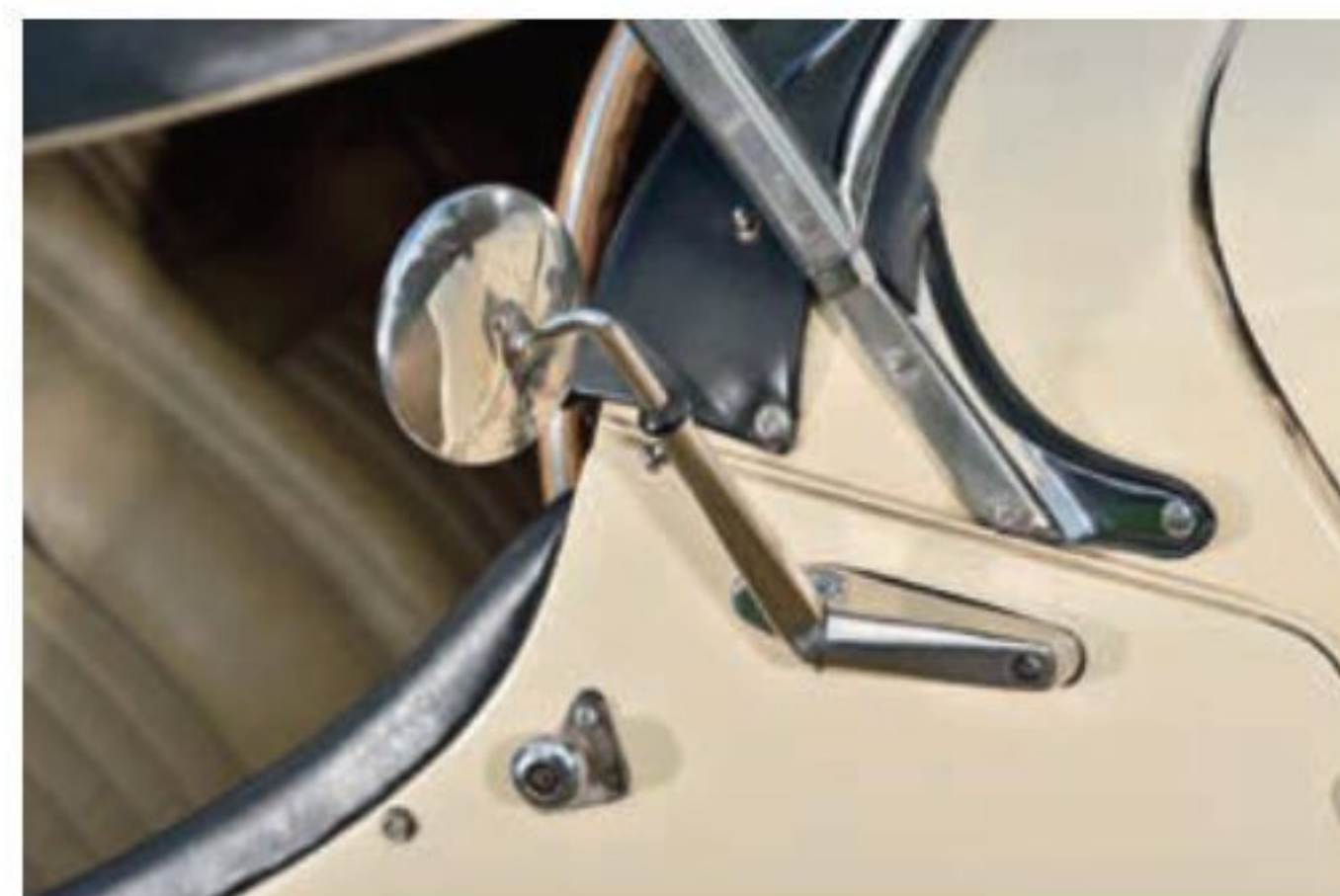
Since purchase five years ago, John has replaced all four wings, fitted a re-cored radiator and had the infamous front suspension rebuilt. He adds: 'I always go to a main dealer for servicing, as specialist knowledge is important when maintaining a Morgan, and this ensures the car's reliability when on hire'. As well as frequent hire trips, his Morgan has appeared on television, in the BBC's *Dr Foster* and the *Antiques Road Trip*.

Getting into the Morgan is best done with care, as edge of the door opening will catch the unwary in the rump, inflicting a painful bruise. John also has advice for exiting his car: 'never try to get out of a Morgan in front of a police officer. You have to roll out and once he sees this, the officer is bound to breathalyse you!'

The Morgan's cockpit is snug but comfortable, with dash and steering wheel close to the driver's chest. The optional walnut dash suits the car perfectly, though the Nineties instruments and Ford gear knob look a little too modern. Forget such trivial criticism, it's the view down the bonnet that really counts. The length and curves of the front end combine so that Morgan drivers enjoy one of the very best automotive vantage points.

The Ford engine starts as easily as one expects and the exhaust has a surprisingly rasping, sporty sound that's perfectly suited to the car, adding to the pre-war motoring experience. On the move, controls are light and positive, gear changes are slick and the steering is responsive. Cornering is very flat, go-kart like without body roll, while the suspension diminishes rather than eliminates most road undulations. It isn't harsh but the ride is certainly firm. In the car's favour, there's very little scuttle shake and no rattling; the car feels totally solid. John sums up 'the Morgan is great for pottering about the lanes but if you try to cover a serious distance, you will feel it'.

The 4/4 is a glorious anachronism. It's truly remarkable that the basic design has endured so long, and it's wonderful that today's drivers still have the opportunity to experience such basic sports car motoring. →





TRIUMPH TR3

When Triumph's TR2 entered production in 1953 the Morgan had been around for nearly two decades and already seemed outdated, just as post-war public optimism demanded modernism. This makes the Morgan's survival all the more remarkable with Triumph TRs and Healey 100s then the MGA all appearing bang up to date for the Fifties. And in that spirit of progress, Triumph replaced the TR2 in 1955 with the facelifted, more powerful TR3.

The TR2 had already proved a great sales success for Triumph both at home and most importantly across the Atlantic, leading to almost 90% of TRs being exported. The volume of TRs exported sixty years ago has recently led to a thriving trade in rust-free cars being brought back to the UK for restoration.

The TR3 certainly looked the part in the mid-Fifties, with curving wings, squat



haunches and genuine 100mph top speed. Under the skin however, it was conventional enough with the body sitting on a steel chassis. Power came from a torquey two litre four driving through a four speed

'box with optional overdrive, there was coil sprung wishbone front suspension and at the conventional rear end employed a live axle mounted on leaf springs. Drum brakes were fitted all round, though from 1957 Triumph fitted discs at the front. Such conventional engineering had an upside though: the TR was reliable and easy to maintain.

Vic Russo acquired his 1956 TR3 as a 'complete basket case of a project' ten years ago and spent two years thoroughly restoring it, doing all the work himself except for paint spraying, which he entrusted to a friend in the trade. Fortunately the chassis proved to be in excellent condition, giving a sound basis for his project. Vic explains further 'the bodywork wasn't so good but all the panels you see today are original, having been repaired with new metal as required'. The car's excellent condition today is a testament to the quality of his work. He admits to adding a few upgrades 'to improve the driveability', including a capacity increase to 2.2 litres, rack and pinion steering, an alloy





radiator with electric fan, and a servo for the drum brakes.

Asked why he chose a TR3 to restore Vic replies 'just look at her, look at the curves. She's simply gorgeous plus she's an absolute joy to drive'. And he does drive his TR, enjoying regular outings to TR Register meetings, touring in France and annual trips to Italy to see the Mille Miglia. He says of the driving experience: 'it's different, there's no power steering and it's heavy at low speeds though it smooths out as you get going. The brakes are very efficient with the servo fitted'. He feels club membership has added significantly to his TR ownership, saying 'the TR Register has been a fantastic help, if you need expertise, advice or can't locate a part, there's always someone in the club who knows the answer'.

Entering the TR3 requires the same care as with the Morgan to avoid a bruised posterior. Once seated, the TR feels more spacious with period instruments installed in the padded dash. The view down the bonnet is appealing but nothing is quite in the same league as the Morgan. The TR engine ticks over smoothly and immediately on pulling away it's the low-down torque that impresses; the car can accelerate briskly without ever needing to use the upper half of the rev range.



Once underway, the suspension is firm, although more forgiving than the Morgan. Overdrive engaged, the TR3 will cruise all day at 70mph in relaxed style, so it's easy to understand how Vic must relish his long distance Continental trips. The Triumph is perfectly capable of ambling along country lanes or hustling through B-road twists and turns too, making it more of an all-rounder than the Morgan. Either car will offer the classic sports car fun factor but for long distance touring and simplicity of maintenance, the Triumph is hard to beat.

VERDICT

The Morgan is simply beautiful, an English rose. The shapely TR3 is certainly a looker but can't quite turn heads quite like the 4/4. The Morgan's modern powertrain promises reliability but the Triumph's more basic →





and back up, so a dealer is the best place for the uninitiated to find a sound car, albeit at a premium price. If you choose to buy privately, have any prospective purchase thoroughly inspected by an expert who knows the breed.

Take time assessing the chassis and body. Morgan's simple chassis frame is strong but can corrode over many years, especially around suspension mounting points. The body is prone to deterioration in the steel panels and its wooden frame. Front and rear wings frequently rust at their beaded edges and where attached to the body; replacement is the only remedy. The body also rusts where the wings attach and occasional in the bulkhead. Any repairs to the wooden frame will be expensive. Rot commonly starts around the door apertures due to water ingress, so inspect this area first.

Mechanically there's little to worry about; carry out the usual checks for fluid

levels, cleanliness and leaks, then listen for untoward noises. A smoky exhaust may indicate expensive engine wear but with the Ford CVH engine it may be nothing worse than worn valve guides. The sliding pillar front suspension is a known weakness and expensive to repair, so inspect carefully for corrosion pitting on the pillars and wear in bushes. Frequent lubrication is essential.

Morgan prices haven't been subject to the recent surge seen with some classics but tracked inflation over many years. Expect to pay up to £30,000 for a top 4/4 from a franchised dealer; at this price you should get an excellent car and peace of mind. Sound cars are available privately for £15-20,000, or a little more from independent specialists. Project Morgans are almost unheard of.

TR3 prices are comparable to the Morgan, with top cars at dealers also around £30,000 and naturally a little less for privately

mechanical parts are easy to maintain and equally dependable.

On the road both offer a great country lane experience but over long distances, the Triumph is more proficient. The buying choice boils down to how you wish to use your classic: for a country lane pootle to the pub it's the Morgan. If classic touring is your thing, get a TR.

BUY ONE

Morgan's unique construction, with steel chassis plus metal body formed over an ash frame, makes careful pre-purchase checks essential. Official dealers always have good used cars for sale with warranty





advertised cars. There are a number of restored cars available that have been repatriated from the United States and these should cost around 10% less than an equivalent UK example. Conversion from left to right hand drive is straightforward, though prices of such converted cars still lag behind original RHD UK-supplied cars. Imported ex USA cars for restoration are available around £5,000, and with great spare parts availability plus club backup, a restoration project is a popular route into TR ownership.

If you're searching for a TR3 or the very similar TR3A, the best advice is to find a local TR Register meeting and get into conversation with club members who may know of cars for sale and will also offer plenty of experience-based advice on buying a TR. As with all steel-bodied classics, corrosion is the big enemy and the condition of the body and chassis is key to a car's value. Rot can break out almost anywhere; check the chassis especially around suspension mounting points, and look for rust in wings, floors, front apron and bulkhead.

The TR's engine, gearbox and axle are tough but carry out the usual checks. Beware of any signs of water in the oil which could indicate leakage between the wet cylinder liners and the block, requiring a full engine rebuild. Steering through the original recirculating ball box is a little vague but shouldn't show excessive play. Later cars have disc brakes up front but the earlier drum brakes are adequate, given the proviso that any classic braking system needs anticipation when negotiating modern traffic.

Find a good Morgan 4/4 or Triumph TR3 and either car will give reliable service, plenty of classic driving pleasure and if properly maintained, will also hold its value. ■

Contacts

OPEN TOP TOURING

www.open-top-touring.co.uk Classic car hire including Morgan
TR Register
www.tr-register.co.uk
The club for TR enthusiasts



The Facts

	Morgan 4/4 1990	Triumph TR3 1956
Engine	1597cc OHC	1991cc OHV
Transmission	5-speed manual	4-speed manual o/d
Maximum Power	95bhp at 5500rpm	100bhp at 5000rpm
0-60mph Acceleration	9.8secs	10.8secs rear
Maximum Speed	104mph	105mph
Fuel Consumption	27.9mpg	27.1mpg
Length	3,886mm	3,835mm
Weight	900Kg	904Kg



FOR THE LOVE OF A TR

Rob Bradford made some crucial decisions when carrying out a lengthy home restoration of his TR3, and they ensured that the love affair with the sporting Triumph endured rather than faded away.



I sometimes wonder where or when the embers are ignited which flare into a full blown affair with Triumphs. In my case I recall exactly the event which would lead to said embers flaring up some 20 years later. I was schooling as a 12 year old in the UK from our home in Africa, so an invitation taking me out of boarding school for a Sunday lunch was too good to pass up. An older brother of my host turned up in a bright yellow TR2/3, I am not sure which, but for me it must have been impressive as I spent most of the day washing and polishing it. As a reward I remember being given an old, small transistor radio with a big round dial in a leather case.

Fast forward 20 years, through resettlement in Australia and the restoration of an MGA for my wife as her daily driver, and one day she announced that she had bought a Triumph in need of restoration for me from a work mate for \$1000. There was no turning back, so I hired a trailer and, with the help of a couple of mates, brought it home.

The term 'In need of restoration' means many things to many people, but dreamers are made of stern stuff and rarely daunted by the prospect of projects that would have more hard-headed people running a mile. This particular dream lasted for another 20



years as priorities like kids and mortgages had the car languishing under two houses, waiting for me to get the inspiration, time and money to get serious.

Having been a member of the local TR Register all along, I was persuaded to host a nog and natter afternoon, so hauled the TR out and spread all the bits around. The encouragement and enthusiasm of that event launched me/us into the beginning of the five years it took to get on the road, that despite the previous owner selling a car that had 'received extensive work and just needed

finishing off.' You know, sometimes people make mistakes, sometimes they tell fibs and sometimes they outright lie!

Time and patience are pre-requisites for a TR owner who does not have the funds to pay someone else to do the hard yards. I had plenty of the former, but very little of the latter! However, first of all I had a really important decision to make: just what was I trying to achieve and what sort of car did I want? This decision was always going to determine the ultimate cost of the project, and also how I would use it. I decided →



that I wanted a good road-going, ultra reliable and comfortable car with the ability to do some sporty stuff maybe.

That part was easy, but how much money did I want to spend, and what priorities should I use in placing the expenditure? I thought I should divide the budget into those items which were essential for creating a basic TR, and those items which were not necessary but desirable improvements. That should at least give me some leeway and discretion in the payments. It occurred to me that lots of

power were not a priority as a standard TR is fun enough. Besides, the tendency to increase compression and power during a restoration could be a real problem in outback Australia if you then need 98 octane fuel but there is only 91 octane E10 available!

I had by now decided that a funding priority would be the suspension, trying to achieve a softer ride for long distance Australian roads, flat cornering and none of the traditional TR leaping about of which I had heard and read so much. This ended up with a

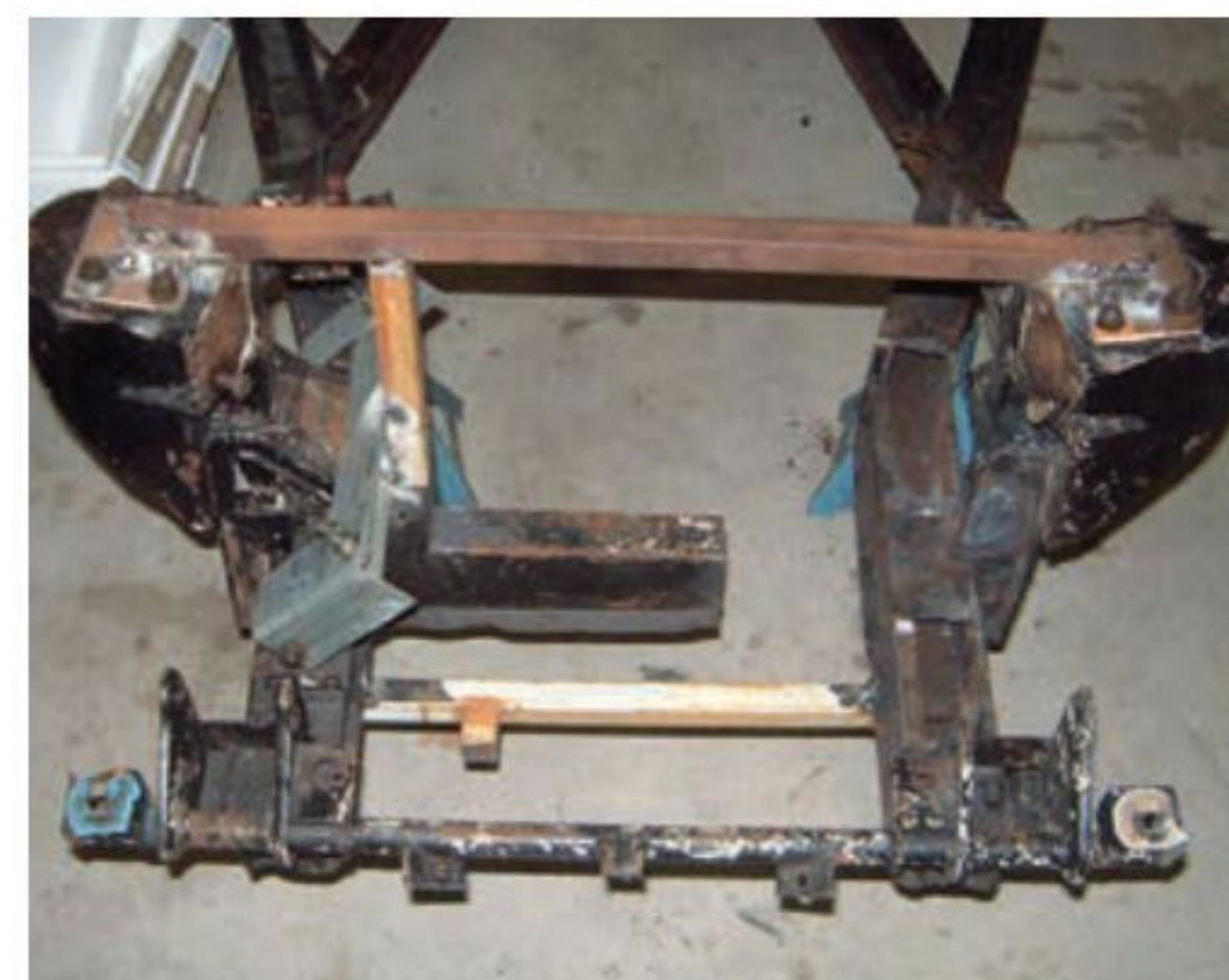
set-up using softer front springs, gas shockers on the front, uprated lever arms on the back and different rear springs using fewer leaves but a heavier top leaf with reversed eye at the back. I also added a 23mm front anti-roll bar, a Panhard rod on the rear, plus a remote brake servo and rack and pinion steering.

There are fortunately many good books written about chassis strengthening and overall improvements for our TRs, so as you can imagine I had a well-stocked library by now. I used the complete Official Triumph



TR2 & TR3 Manual by Robert Bently, Roger Williams' How to Restore Triumph TR2, 3 and 3A and also his How to Improve Triumph TR2-4A, along with Buckeye Triumphs, Greasy Hand Garage and even MG with Attitude, all by authors who have to be congratulated for sharing their vast experience with the world. Some of the detail is amazing, and certainly more than adequate for a basic mechanically-minded person to tackle just about every job in a restoration on a budget.

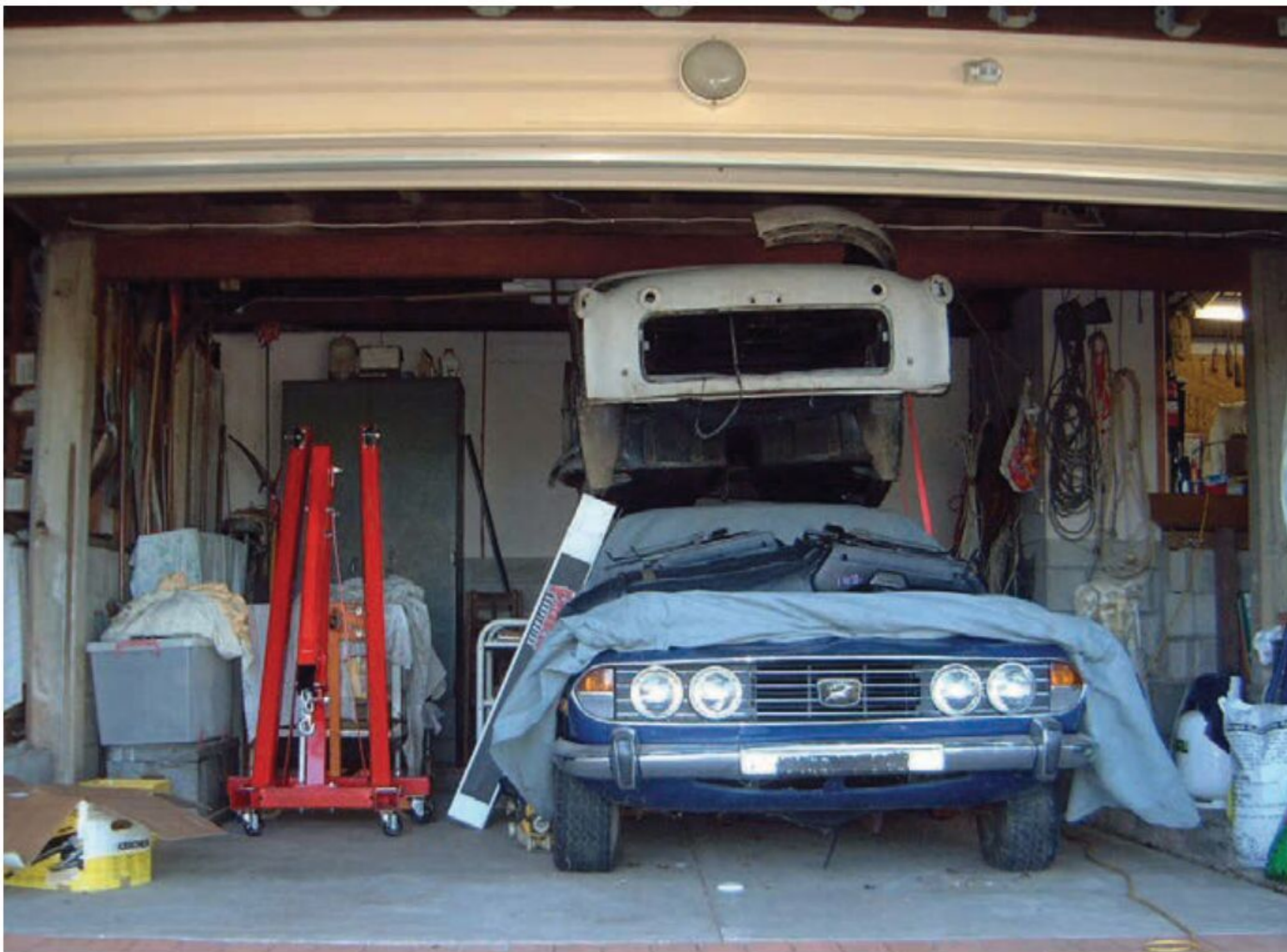
There was not much space, so one of the first projects was to set up a monorail for storage of the body when working on the chassis and other bits. A good start was fitting a lifting and locating cage to keep the body in shape before lifting it off, but that revealed some horrors on the mechanical side. I was fairly certain that lifting the rocker cover and finding the push rods fouling the rocker was not a good sign. Nor were finding sledge hammer marks on the flywheel, another reminder that there were



probably worse things to come and this car was not going to be on the road for Christmas. I also discovered the lefthand rear lower trunnion welded to a long piece of 2inx2in angle iron which covered a tear in the chassis and held the bottom of the tower in place

So now I needed to swallow hard, take stock and form an action plan. Running a tape over things showed that the LH trunnion was 16mm out of parallel, the engine mount was not connected at all, the tower was hanging on by a thread and there were huge tears in the chassis. All this had been previously repaired by a shop somewhere and someone was driving around in it, so one can only wonder how lucky other road users must have been to not be killed by this car.

Okay, so now we needed to cut the bad bits out, but first make up a jig to hold what was left in place. Reading the manual gave me the chassis drop test coordinates, which was a good start to finding the right place to fix the towers together before cutting out the →

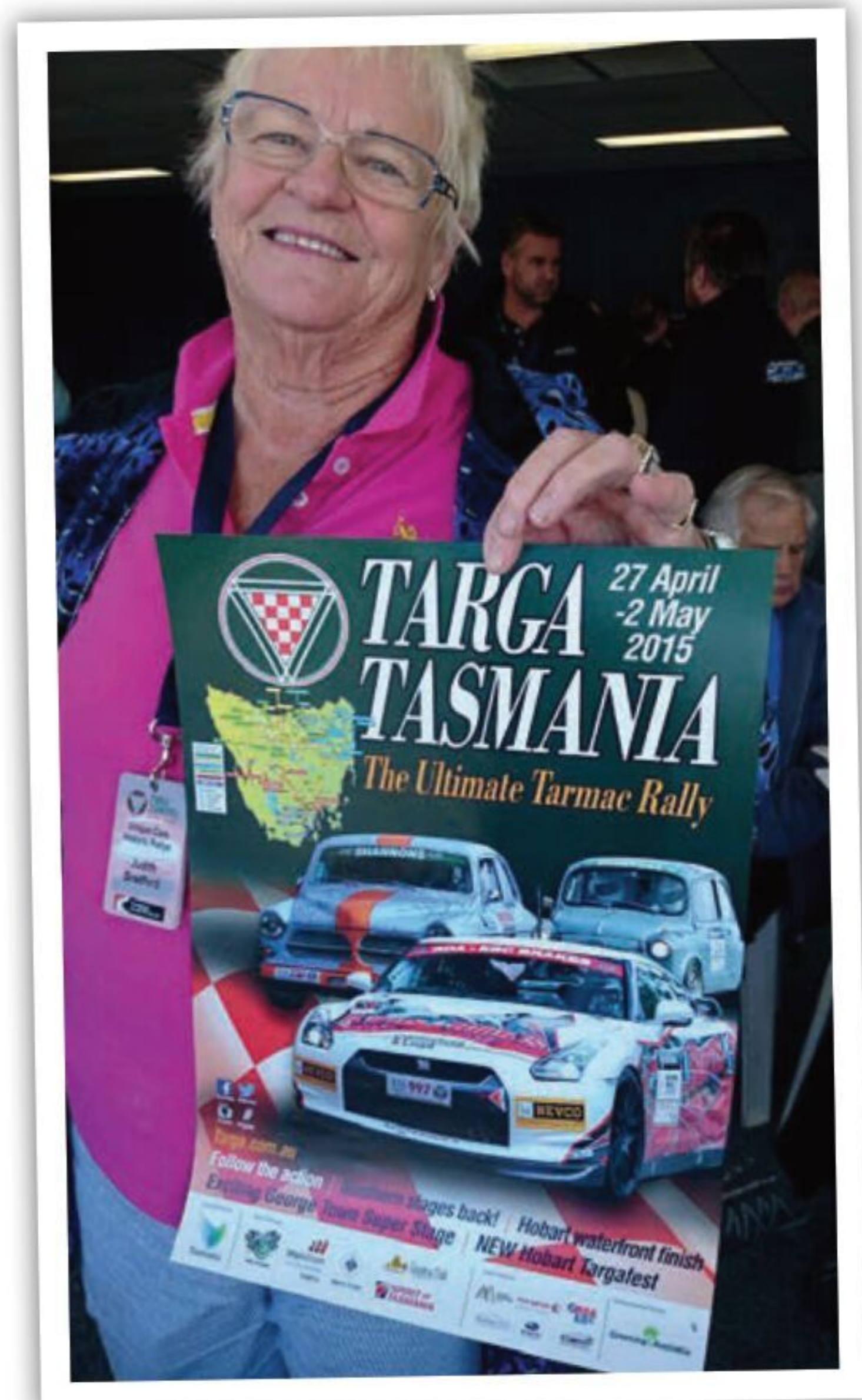


bent and cracked crossmember the cracked sections of the chassis and tower. When rebuilding the tower and crossmember, I had our local sheet metal shop press up tight-fitting sections which fitted inside and outside, which I then plug welded in place and fitted large gussets under the joints. Reversing the jig located the other engine mount and trunnions. Well, that seemed a reasonable assumption at the time... We ended up with 2mm out of square taken on the outward chassis drop point diagonals, so the experts suggested it was probably as good as needed. Certainly my final roadworthy inspection showed that the wheel alignment front and rear was only four minutes out, which I think shows that the old fashioned stringline and plum-bob methods might take longer but can produce very acceptable results.

Fitting the rack and pinion steering turned out to be one of my more interesting

jobs. I had heard all manner of terrible tales about bump-steer and Ackerman angles, but really did not understand what they meant, so began reading up. All the books in the world do not help understanding like seeing the effect first hand, so I bought an AUS\$9 laser level and clamped it onto the front disc, having no springs fitted to allow full suspension travel. Then I fitted first the original steering set followed by the rack set-up for a comparison.

A large piece of graph paper placed on a board at the tire radius then allowed a graph to be made plotting the actual variation in toe when the suspension moved. The original steering results gave me the baseline to work with, as by now I realised that the Ford Escort rack was longer than desirable so there was a tendency for toe-in on compression rather than toe-out or neutral in the critical part of the arc. The accompanying diagram



shows just how bad some steering set-ups can be, and even how the geometry can vary between sides if actual measurements are not taken. I was able to achieve the desired outcome by varying the height of the rack and using drop arms which put the balljoints closer to the discs, ie increasing the radius of the rack so the track rods remain parallel to the top and bottom suspension arms. (The full story is available online at: <http://www.tr-register.com.au/Files/technical.htm>)

I do wonder how many DIY mechanics just bolt stuff like this on without knowing the outcome in advance in terms of how the car will drive. There are of course rack set-ups that have now been professionally engineered for our TRs and which avoid these problems, but they were not readily available down under.

Trying to restore a TR whilst working full time is a long and sometimes tedious task, but when the time did eventually come for me to retire, work then progressed at an advanced rate until one day it was time to actually drive it to be registered. Now, after owning the car for 30 years I had never sat in a TR or driven one, so just imagine the delight

of this day! It was wonderful and a little bit scary, particularly as it was the first time out and only one week before the National TR Register concours being held in Toowoomba about 150 miles away. We got 2nd place in the Road class which was a major thrill, after which we drove for another 800 miles touring without any mishaps.

We have covered 42,000 miles in the five years since, with only a blocked fuel pump filter and failing oil pressure spring causing us any problems, plus a radiator leak that

was caused by how I fitted the electric fan – do not use ties through the radiator and do use a soft gasket between fan and radiator as plastic is going to wear through the radiator tubes. I have to admit to a lot of preventative stuff being done as I do like to fiddle with things to improve reliability. Mind you, our trips are often up to 4000 miles – we have done a couple of Targa Tasmania closed road rallies and Tasmanian TR tours as well as our Annual National events which will rack up similar distances.

I spent a total of AUS\$15,000 on essential items and AUS\$7000 on discretionary upgrades. I think that careful budgeting and decision making on essential items, discretionary items and priorities were the key to my successful Triumph experience, and in my case contributed a great deal to my love affair with NPY. I have always loved the journey as much as the destination, so leaning how to do things and solving problems without hurling wads of money at it gives me great satisfaction ■

ROB'S TOP TIPS

I'd like to conclude by picking up on some of the jobs on the TR that gave me the most satisfaction.

SOLVING THE OVERHEATING TENDENCY

I ran some flow and pressure loss tests and found that the specified thermostat used 65% of the pump capacity and was fully open at the normal running temperature. Using a larger TRIDON Model TT2000-170 high capacity thermostat which is set to be 50% open at a running temperature of 182°F gave a 50% increase in capacity which solved overheating, all for just AUS\$20. Most local TRs down under now run this with 90% success. (Download the full article at <http://www.tr-register.com.au/Files/technical/Too%20Cool%20a%20TR.pdf>)

INSTALLING AN OVERHEATING ALARM FOR LESS THAN AUS\$15

The back of the cylinder head usually runs

about 10-12 degrees hotter than the coolant at the thermostat, so it seems logical to measure the temperature at the back of the head by installing a disc thermostat onto the rearmost head bolt/nut and have this trigger an LED or a buzzer. There are two suitable switches which close on a rise in temperature at 200°F or 220°F; the Selco numbers are 70098639 Type CA-220 or 70098638 Type CA-200.

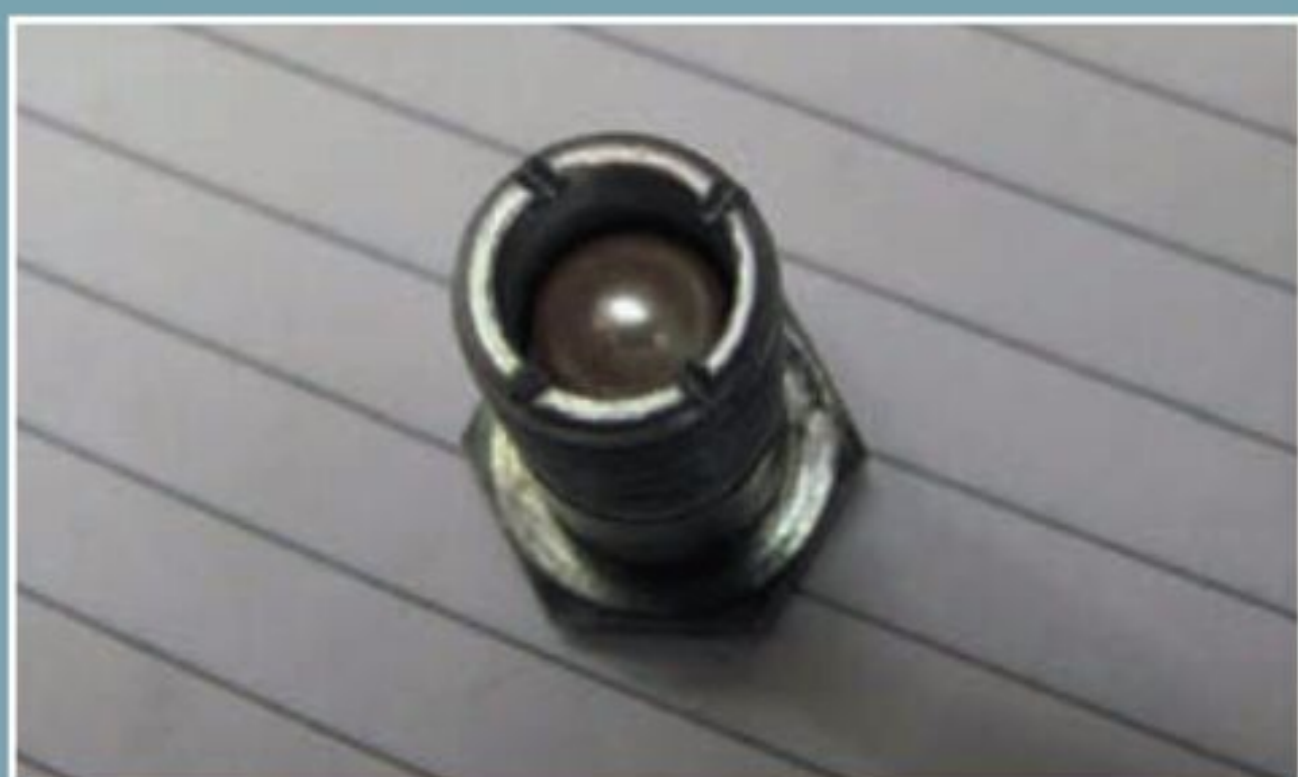
SOLVING THE STINK OF PETROL AFTER FILLING UP

A common dilemma after having filled up the TR is that every lefthand bend was quickly followed by the stench of petrol which had exited the breather on the RH side of the tank and left a trail of valuable fuel on the road. You can access the breather from the boot using a 7/8AF spanner. Remove it and drill down the middle for about 7/16in with a 21/64in bit. That just happens to be right for

the plastic beads that I found available, but you can adjust it to suit what you can find. Most haberdasheries will have packets of beads, so pick ones with the least amount of colour and test in petrol before proceeding. Put a small dab of Araldite in the hole of the bead to seal it – there is no need to fill the hole, just seal it. If you then insert that in the hole you have drilled and stake the end of the breather with a chisel to stop the bead coming out, you have made a cheap non-return valve.

MAKING UP MY OWN WIRE WHEEL BALANCING ADAPTOR

Cut the thread off an old spline adaptor, and then get a machine shop to skim the back inside cone concentric with the outer one. The cost for this should be about AUS\$20, but when tested on the digital balancing machine proved to run spot on no matter who I take wheels to.



MISS SWEDEN'S ITALIA



If you're a TR enthusiast who wants to go upmarket, the TR5/250 is very nice and quite rare – with a combined production number of about 11,500, prices are becoming deservedly high. However, if you want a seriously rare TR, one option is to try to buy one of the 329 Triumph Italias, designed by Michelotti and coachbuilt in Italy by Vignale between 1959 and 1962. Iain Ayre examines one that is nearing the end of a restoration in Sweden.

PICTURES: PAUL PANNACK



The Italia design could just as well have had a Ferrari V12 engine as a pedestrian British straight four. Triumph got as much talent out of Michelotti as Ferrari, Lancia and Maserati ever did.

Our North American and Sweden correspondent admires the first Triumph Italia he has had a chance to check out, with its restoration approaching completion.



The origins of the TR4 are crystal clear here. Fine proportions, flat sides and the little kick at the back end of the doors.



Squared-off understatement and subtle late-fifties fins: everything is in just the right place.



The boot is quite a decent size, even with the spare wheel in it. There's enough room here for touring luggage.



Fuel filler is inside the boot, which keeps it cheap and simple, but also avoids the clutter of external fuel caps or complex hinged fuel cap lids.



The full-size spare goes under the boot floor. There wasn't such a thing as a space-saver in 1959, or for that matter aerosol tyre inflator and repair goo.

An Italia is pretty much the Holy Grail for Triumph TR enthusiasts, and Bengt Åkerblom of Värmdö in Sweden is definitely a hardcore Triumphalist. He has restored a good few Triumphs in his spare time, and is eagerly awaiting retirement from being a heating engineer so that he can get on with some real work and restore some more Triumphs. The look of instant dismissive boredom that flashed across his face at the mention of heating engineering was quite clear, and no further discussion on that subject seemed necessary.

Unfortunately Bengt doesn't have the sort of money that can write a cheque at Barret Jackson or Sothebys and buy an Italia, but he wanted one as badly as any of us would. A rumour began to circulate in the Stockholm area of the Swedish Triumph Club about an Italia lying unused in

somebody's domestic garage not far away. Bengt leapt on this rumour, chased it to its source, and it was finally arranged that he would be allowed to visit the car. Just to admire it, you understand.

The garage door opened to reveal a car that was rough, but it was an Italia and it was mostly complete. Not only was this an Italia, it was No. 65, the Italia owned by Miss Sweden 1965, Britt-Marie Lindblad, and imported by her from Germany. (This was another part of the original unlikely rumour that turned

out to be true.) Bengt was trying not to look too excited, and was carefully and gently heading the conversation in the direction of mentioning the car's possible future, edging delicately towards probing the area of potentially making an offer, pointing out that the owner at 84 years old probably wasn't going to achieve the restoration he'd planned, but Bengt definitely would. The owner, who'd had the car since 1969, eventually agreed and suggested a sensible price. Bengt couldn't agree quickly enough, and very quickly the car was in his garage and stripped.

The restoration of an Italia is an odd mixture of dead easy and unobtainium. For the TR4 parts, you just compare prices from Triumph World's advertisers, get your credit card out and Bengt's your uncle. For the Vignale parts, you're looking at finding pieces from a run of 329 cars, hand-built 60 years ago in Italy. Steel body panels? Not a hope, there aren't any. Windscreen? Remarkably, that's not a problem: Pilkington still has the buck, and will make you one for a reasonable price. Side glass? Flat, so getting new laminated replacement glass made is no problem. →



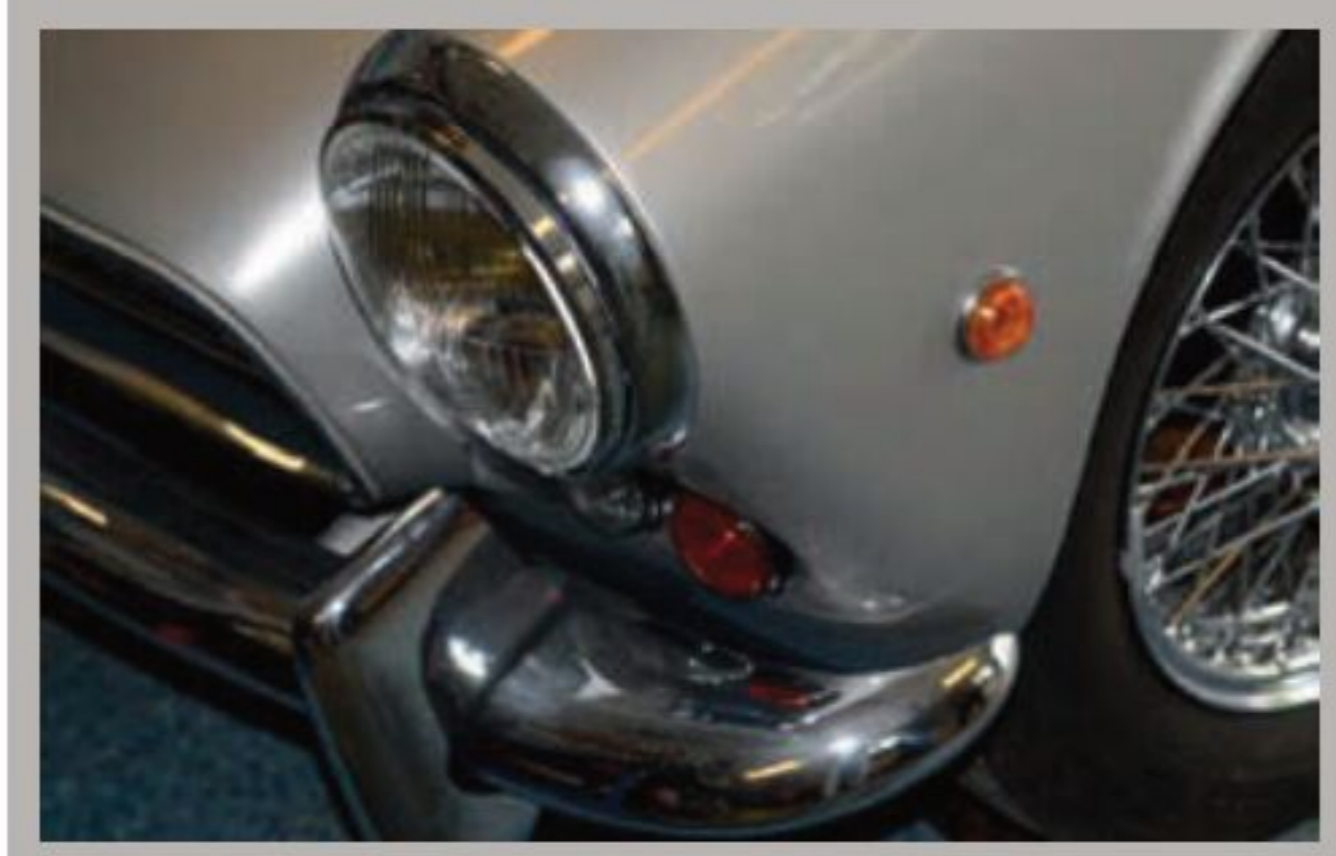
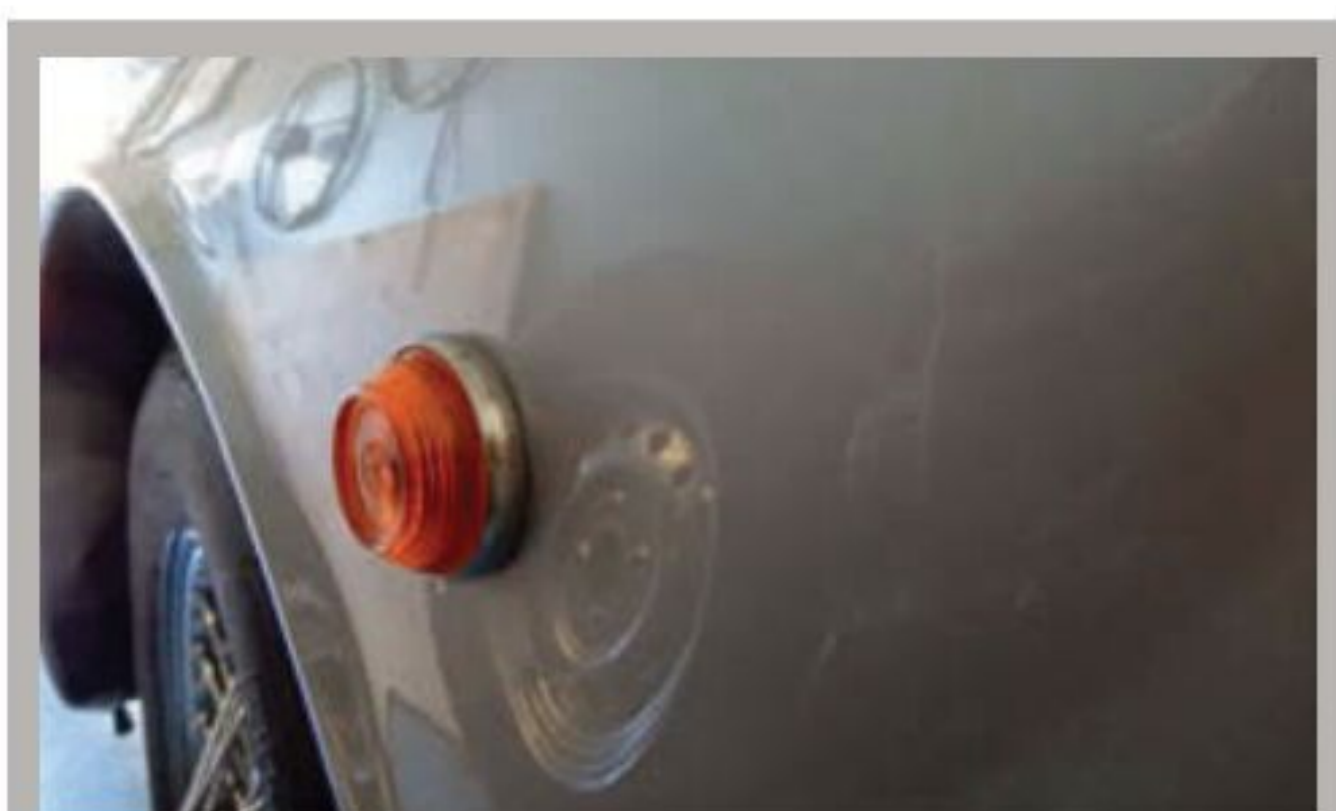
The swage line at the back of the door is very sharp in the Italia, although the TRs lose that definition in the doors. That may well be due to a financial mass-production pressing-tool limitation, but the Italia's doors were handmade so they could be any shape Michelotti wanted.



The grille pressing is shared with Maserati. The overriders are a vaguely familiar shape, although the bumper looks custom and fits the body beautifully.



Sidelights and indicators are not unique to the car, but the beauty of 1950s designs is that pattern parts of this nature can be fitted without compromising the beauty of the original intended design.



Indicator side repeaters definitely look continental.



1. Chromed knock-off wire wheels with Triumph disc brakes beneath. Competent and effective for fast touring.
2. The car currently wears TR4 tail lights, which were a later British production copy of the originals. They look fine, logically enough: possibly better than the originals.
3. This is the unobtainium aluminium casting for an original Italia tail light. When a set of original lenses and bulbholders can be assembled, they will replace the current TR4 lights.
4. Number plate lights are the sort of area where you run into trouble with obscure Italian coachbuilt cars: fortunately these are present and are in fine condition.
5. The carbs still pop up too high in the same place on the TR4 and the Italia, so the bonnet bulge is common to both.



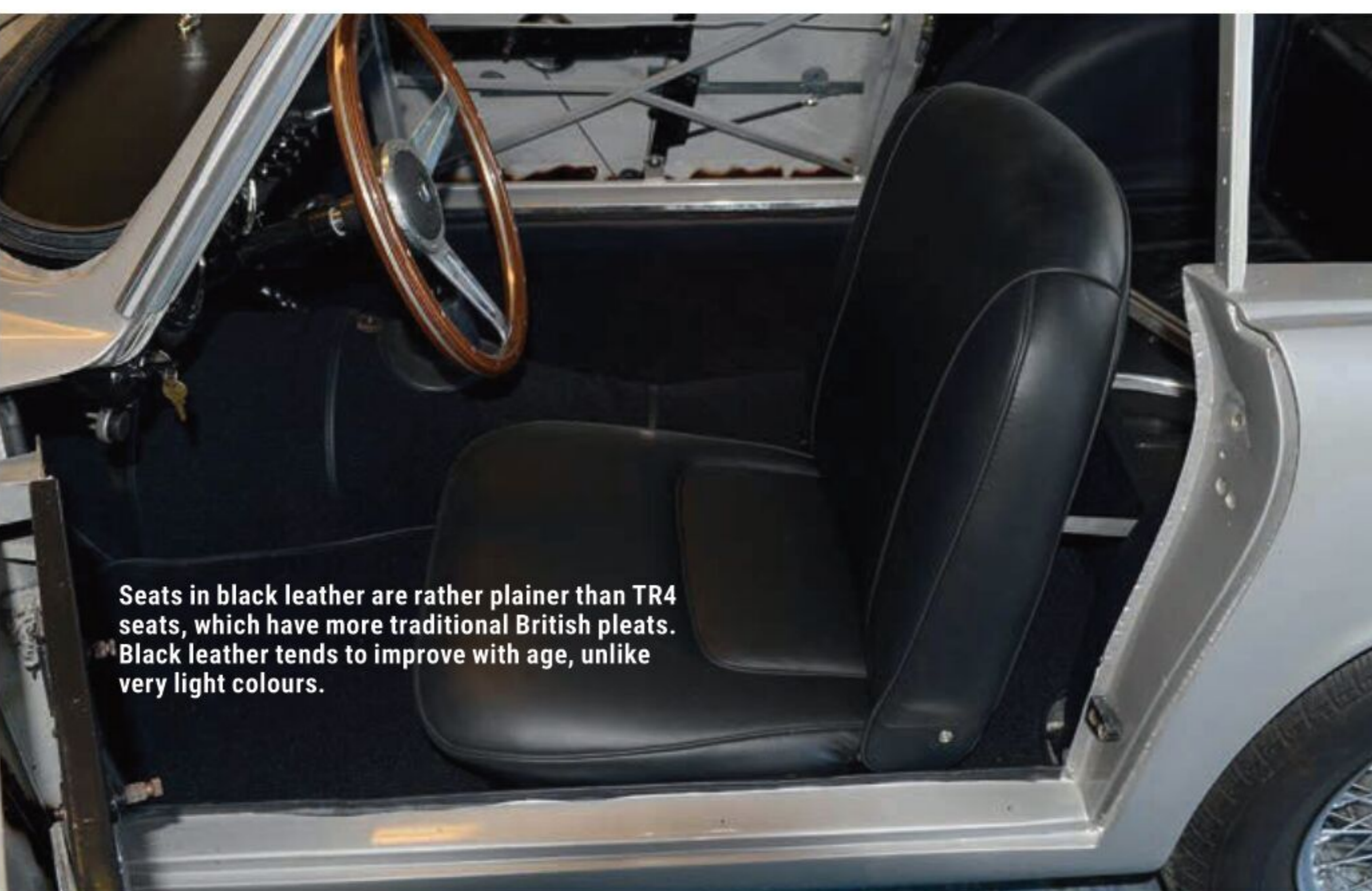
Formal moniker of the car is Triumph Italia 2000.



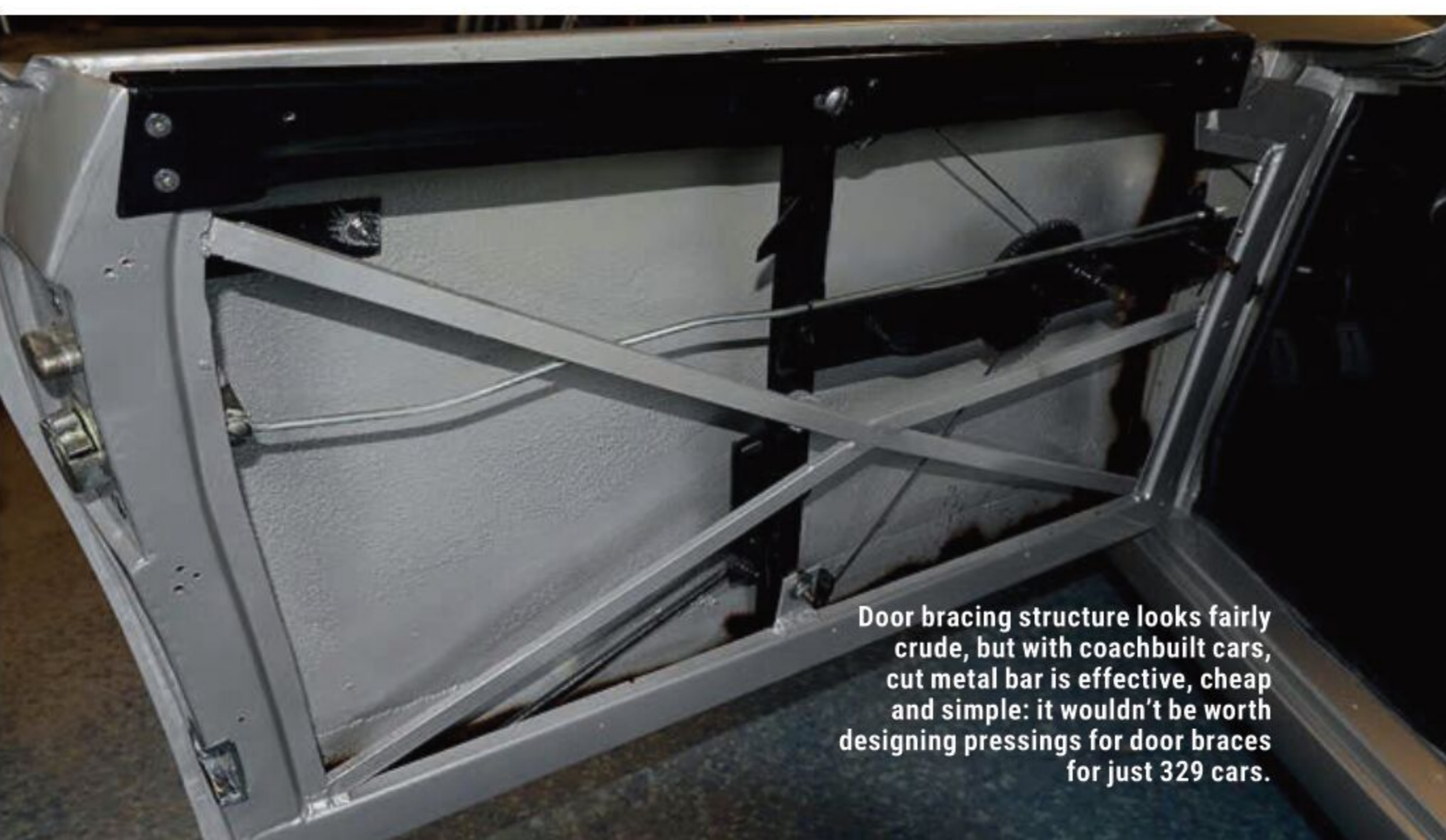
Coachwork by Vignale of Turin.



Crossed flags either mean V and S or, nautically, "I am going astern" and "I need non-urgent assistance." The flags are visually not exactly the same shape as on Heralds, but are the same flags.



Seats in black leather are rather plainer than TR4 seats, which have more traditional British pleats. Black leather tends to improve with age, unlike very light colours.



Door bracing structure looks fairly crude, but with coachbuilt cars, cut metal bar is effective, cheap and simple: it wouldn't be worth designing pressings for door braces for just 329 cars.

Rear screen? Ah, that's another matter. The Italia's rear screen is very carefully stored on a flat, padded surface. In practical terms it's irreplaceable, and his next task, left almost to the end of the restoration, is to refit the rear screen to the car with new rubbers. The rubbers themselves are available the same day from the UK, no bother. All Triumph enthusiasts should cross their fingers when Bengt puts that rear screen back in.

The rotten bodywork wasn't too bad really, as it was a simple restoration of a simple body style in straightforward mild steel. The car is fairly slab-sided and the rust was mostly down at the bottom. Bengt was committed to saving and repairing the original panels rather than replacing them, but at least it's not like recreating bulbous compound-curved French pontoon wings from the Art Deco period, or from a Triumph Roadster.

The grille material was also easy to deal with in one sense, in that it's available. That's because it is shared with period Maseratis, which is of course the down side of dealing with it – Maserati parts were traditionally priced to make Ferrari look like Walmart. They still are: a friend of mine recently declined to buy a replacement 2000S Maserati gear knob for £500, and sorted the problem with glue and duct tape instead. As you are mentally suggesting, that Maserati was swiftly traded away before anything else went wrong.

Retrimming the Italia's seats and door cards in leather and suitable vinyl is another of the straightforward jobs, although some of the pieces of hard interior trim can become very tricky indeed. Anybody restoring such a car pays full attention at all reachable autojumbles, although for an Italia owner it's really more like panning for gold. Remarkably, at one sale an inside door handle did turn up. Showing immense self control, Bengt stayed calm and acted casual.

'I might be able to use that, would £20 be enough?' he asked. The seller agreed, and Bengt waited until he'd exited the building before doing the little victory dance.

Some of the pieces of trim inside were also tricky to restore, as they were randomly made from either good stuff or chromed →



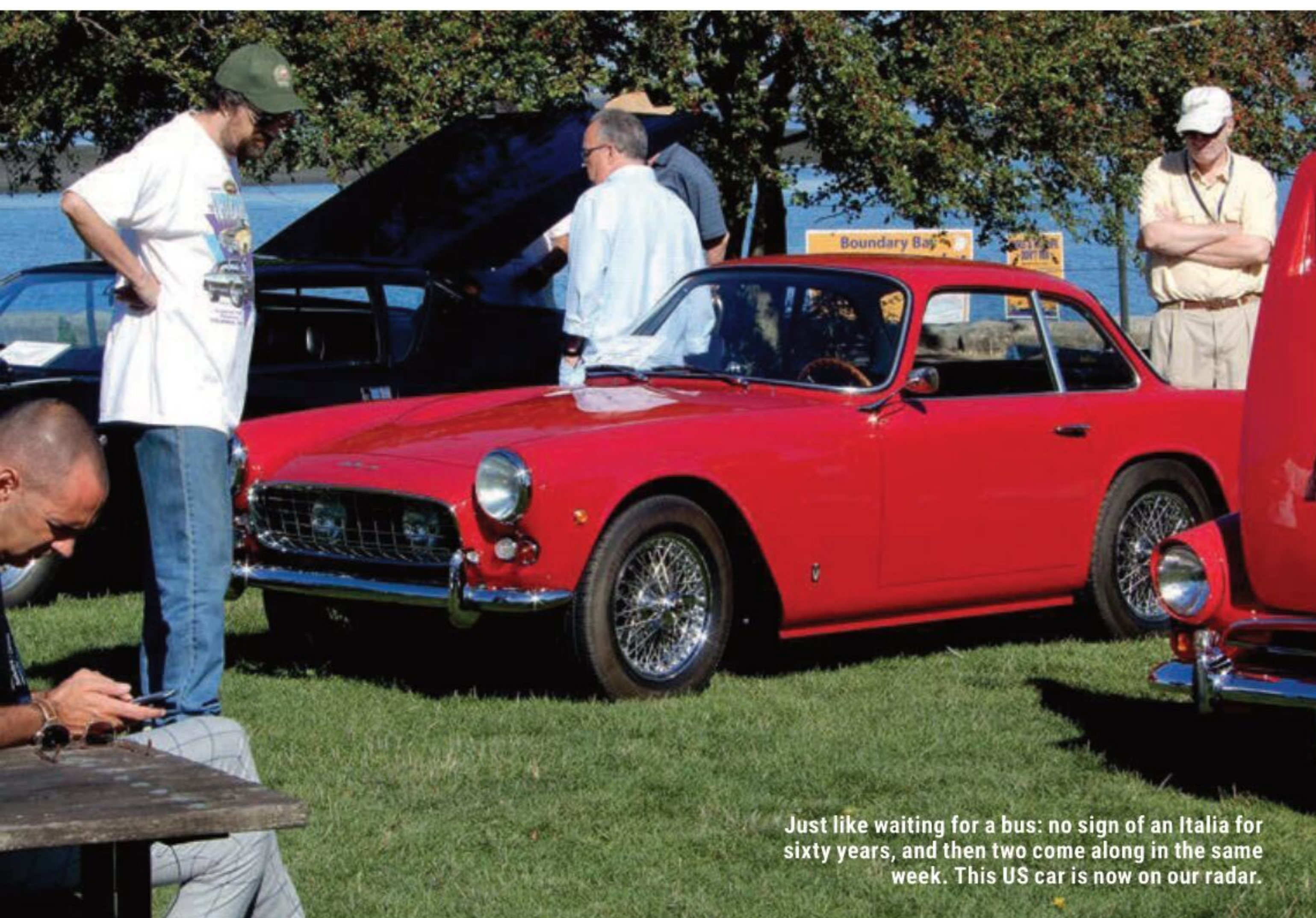
Moto-Lita woodrim wheel isn't standard, but is a very appropriate period upgrade.



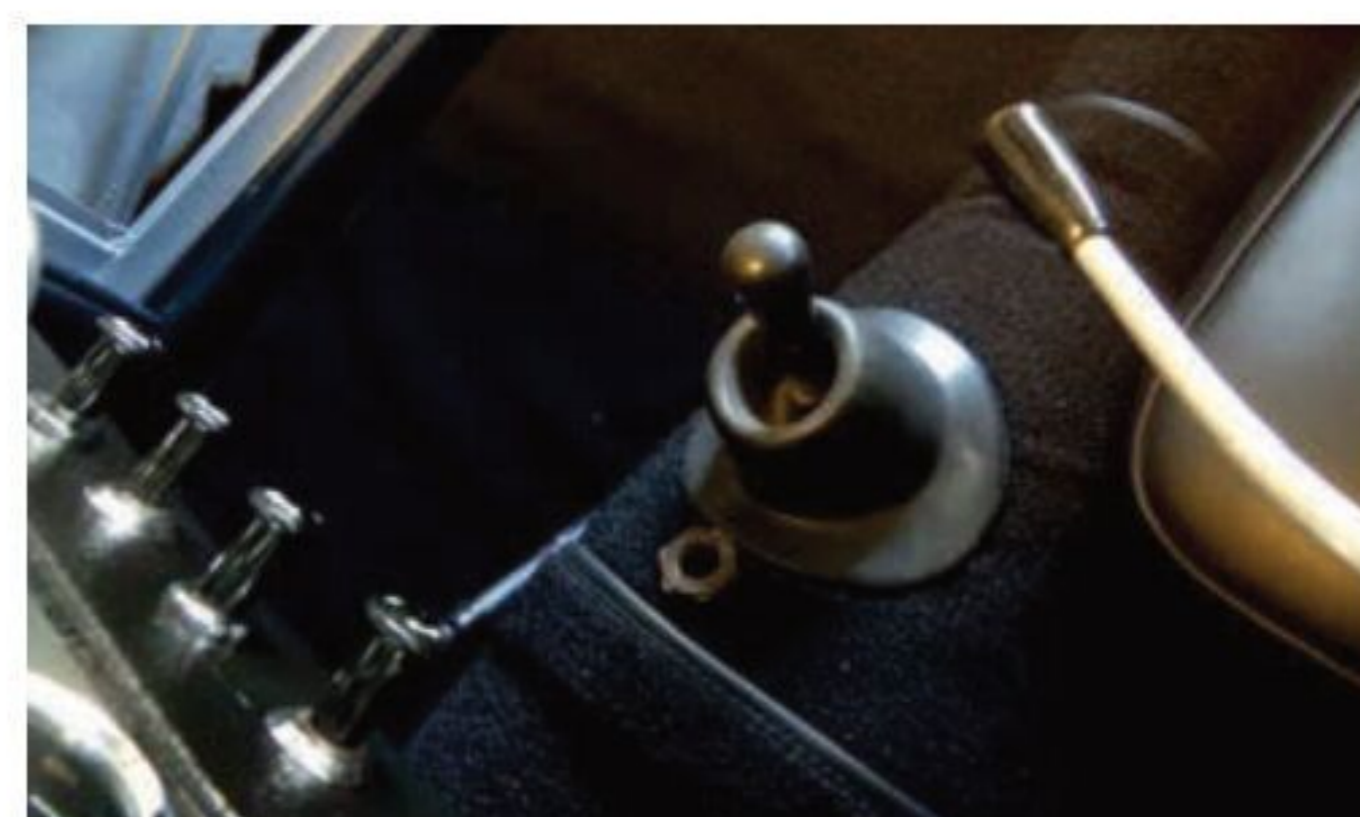
Here's the internal door handle that the sharp-eyed Bengt spotted and grabbed for a mere twenty quid.



TR clocks have an unusual amount of complex visual design, and work well with the car's understated Italian styling. They're also usefully hugely cheaper than finding or restoring a set of Jaeger clocks.



Just like waiting for a bus: no sign of an Italia for sixty years, and then two come along in the same week. This US car is now on our radar.



Gearbox and lever are straight out of the TR.



Everything in the engine bay is also TR, although the engine has been treated to an aluminium rocker cover.

monkey-metal. Vignale would just have used whatever was available, probably taking the lowest quote of three, and nobody building new cars expects them to last long enough for the interior trim to corrode. If you can't source something like a door trim strip, you have to make a slightly larger version in hardwood, then make a mould, or have one made by the lost wax and sand casting process, then get the resultant brass casting polished and chromed. It can be done successfully from photos and measurements, but £20 for the real deal works a lot better.

The dash is unique with a chrome trim and a textured aluminium surface, but at least it's flat, and the clocks are just TR so a piece of

cake to replace or to restore. They're also quite fancy for 1950s British dashboard jewellery, which enhances the Italia's otherwise rather austere interior trim very well.

The wiring is Italian rather than Lucas. In reality, most of the electrical gremlins that gave rise to the Lucas electrical jokes about warm beer and auto-dimming headlights were down to time, a damp climate, corrosion and bad earthing. Given the choice between sorting out ancient Lucas electricals and ancient Magneti Marelli, I'd actually go for Lucas. In my garage there is a big Lucas garage sign, which is doing a good job of giving due respect to the ghost of Joseph Lucas, in the same way that Norwegians



The brake servo and single line brake system are again standard Triumph: the steel-bodied Italia weighs about the same as a TR4, so the same brake system works fine.

wisely acknowledge the trolls that live under bridges. Why take chances? As a direct result of this prophylactic automotive voodoo, the only vehicle in my establishment that absolutely refuses to start is a Dodge.

While the loom that goes to the lights is merely made of easily replaceable copper wire, the lights themselves are another matter. The headlights are Hella, with the correct period Continental yellow bulbs, and the front sidelights and indicators are actually Lucas, although there are many of a similar type and size available, so a good set of the absolutely correct lights and even the side repeaters can eventually be assembled from box-raking at autojumbles.

The tail lights are another matter as they are unique to the Italia. Bengt has an original casting, and from that others can be made, although finding the lenses would take much raking through Italian boxes at autojumbles. The TR4 tail lights currently fitted to the car look fine, but that's because the TR4 lights are a productionised copy of the original

Vignale design (as is the rest of the TR4). Saying this car looks like a TR4 is the wrong way round – it's the TRs that look like the Italia, all the way from TR4 to the final TR6.

They're not an exact copy of course, but nearly every design feature on the Italia appears on the TRs. The factory hardtops are a slightly clumsy interpretation of this fixed roof, although the later TR6 steel hardtop regains some of the elegance of the Italia's roof. The swage line that kicks up at the back of the door is there, sharper and more dramatic in the Michelotti design. The major difference is the bonnet and grille, with the TR headlights moved inwards and incorporated in a wider grille. It's entirely up to you whether you like the British or the Italian look.

For any Triumph and TR enthusiast, it's well worth making the effort to find and examine a Triumph Italia – they really are a design delight. The oddest synchronicity occurred with this one, though. I had never actually seen an Italia, and largely because



Bengt used all his collected restoration skills on the Italia.

I wanted to have a proper look at one, I extended my usual annual UK trip from Vancouver to include a side trip to Sweden.

Then literally a week before my flight from Canada, I went to a friend's concours event ten miles away from my home, and what should I stumble across but another Italia. This one had been driven up from Washington in the USA, and is in show condition. When the spring has sprung, I will be cruising south to celebrate another first: a drive in an Italia. ■



A. Body plate says this car is No. 65 out of 329. B. First step is to cut the bodywork back to solid metal, excising ancient filler repairs. C. Then you start making new panels from sheet steel, because you can't buy any. D. The doors weren't too bad, with just the bottom few inches needing replacement. E The repaired, painted shell is ready to go back on the chassis. F. Rolling chassis is standard TR4, so restoration is straightforward and parts plentiful. G. The finished body is reunited with the chassis and bolted in place. H. The interior getting there, with the Italian wiring loom recreated and wrapped. I. Door retrimming is simple - as long as you have the unique Vignale door trim strips.



A SIDEWAYS LOOK AT THE TR4

Andy Starkey sees a TR4 in rally action, and decides that despite the punishment it takes, the car is really in its element.





You've always fancied that British classic, a little piece of motoring history that you can keep pristine for a future generation to enjoy. Just think of all those hazy summer days cruising country roads to the next classic car show and then returning it to the comfort of a nice safe warm garage. Sounds like the perfect dream and one many of us would suggest is the only way to treat a classic car. The thing is though, for some people that just isn't enough. Some people are more at home with pushing their trusty old steed to the limit, and sometimes beyond. Their idea of fun is to hustle their classic down tight, twisty and often slippery roads, Scandinavian flicking here, performing handbrake turns there and generally bouncing the engine off the rev limiter whenever the opportunity arises. These crazy – I'm sorry, I meant to say these dedicated – individuals are into rallying!

One such chap is Nigel Allcock, and he owns and rallies this Triumph TR4. 'Is he completely mad, a TR4 Rally Car?' I hear you say. Well no, not completely mad at least. The TR4 is certainly no stranger to rallying because back in 1962 there were some rather special ones developed by Triumph themselves to contest some of the most famous international events of the time. And if it wasn't for the fact that the organisers were making these events more and more arduous by setting routes through more and more inhospitable terrain that needed greater ride height, the TR4 would've campaigned for longer. The Triumph 2000 and 2500PI were to take up the mantle after 1964 on these rougher events. So while the TR4 may not have quite the illustrious success in rallying as say, the BMC Mini, it is safe to say that it was no slouch, and it →



paved the way for other triumphant Triumphs in years to come. So, there's a little bit of the car's pedigree, what about the driver?

It turns out that Nigel is no stranger to rallying either. He started drifting around events way back in the 1970s, driving such cars as Alfas, Vauxhalls, Minis and even an ex-Paris Dakar Bowler Wildcat. (I'm sorry, I have no idea what that is, but if it was built for the Dakar it must've been something of a beast!) The call of wanting to recreate those halcyon days bit Nigel pretty firmly in the wallet in 2009 when he decided to purchase the 1963 TR4 and looked at entering it into some Historic Stage and Road Rallies.

'I chose the Triumph for a couple of reasons,' Nigel tells me. 'I've always liked to compete in something that bit different, and it was available at such a great price.' The car was already prepared and had competed in road rallies, so needed just a few alterations to bring it up to meet the required specifications for stage rallies, as laid out by the MSA (Motor Sports Association). The car is certified and log-booked by the MSA as a Historic Category One vehicle. This is the class for cars built up to January 1968 and can therefore only use modifications available at that time. The exceptions to the rule are the safety enhancements of the cage, seats, harnesses and extinguishers where

more modern technologies and materials are used, all of which have been utilised to meet the current safety criteria.

Fortunately, back in the mid to late 1960s there were plenty of options available to make your TR4 go a bit quicker, stop a bit better and handle more than a bit better. These permissible modifications have all been added to Nigel's car. The engine is a tuned 2.2-litre built by TR Engineering. It sports a rally profile cam, lightened and balanced crankshaft and forged rods and



pistons. The head has been ported and fitted with bigger valves, twin 45DCOE carbs, a competition exhaust manifold and skid plated big bore exhaust. All of these are old school tuning techniques that give the trusty old girl around 180bhp at the flywheel.

All the suspension has been uprated too, along with a quick ratio steering rack. The brakes remain original, but with greatly improved Mintex materials. TR Engineering also got to grips with the gearbox and rear axle, strengthening the gearbox (which is non-overdrive) and installing a Salisbury type Limited Slip Differential into the axle. An LSD is an absolute must to get that tail swinging when drifting through the forest. Finally the TR is shod in a set of period Minilite wheels and competition rubber, the exact choice of

rubber depending on whether Nigel is on the loose stuff or the grippier tarmac. All in all I think it's safe to say this car has been pretty well sorted for the job in hand.

From 2010 until 2014 Nigel campaigned his TR4 in many a rally. Forest, gravel and tarmac – Nigel and the TR have done the lot, and I'm afraid it's starting to show. There are some small battle scars here and there which you would expect, but one thing that does stick out like a sore thumb is the obvious battering the car has taken over the years. Although the chassis has been strengthened, the constant bumping and twisting has led to some of the panel gaps and shut lines to open up and gape somewhat.

Even after something of a general revamp last year, the toll taken by competition is →



still very evident. Now this is where some of you may sit up on your hind legs and protest that this isn't the way anyone should treat an ageing classic, and I can see your point. However, the very fact that the TR4 is not of a modern monocoque construction means that this situation is almost unavoidable and certainly fixable. And anybody saying that using a car like this in such arduous conditions is an absolute sin should come and see the car in action for themselves. To me it was like watching a racehorse at full tilt. Sure, it looks punishing and the jockey whips and pushes the beast to the limit, and yet the horse seems to want to do it. To me the TR is

the same in a way. It looks very much at home being pushed hard. And the sound – the noise of those throaty carbs and the roar of the big exhaust is simply delightful. It seems to cover the ground with a certain effortless grace, just as a thoroughbred should.

Now, I can assure you that Nigel is far from ignorant to the effects these events have on his beloved Triumph. Later this year the car will be fully rested and completely overhauled where the ravages of past years of action will be undone and made good ready for 2018. Nigel has already decided that the car will only compete in smoother tarmac rounds, too. The reason for this is

quite simple. The MSA used to allow the Historic cars to run in events first, before the more modern four-wheel drive cars tore up the ground. For whatever reason those rules have been reversed and now all the old machinery have to start behind the modern young pups, making it tricky for low slung cars like this to survive deeply rutted gravel rallies. Only entering tarmac events will prove to be far kinder to the TR and other ageing masterpieces like it.

Interestingly, these older historics are becoming more and more popular with the younger fraternity too. The event I attended to see Nigel competing in recently, the AGBO Stages Rally which is part of the Old Stagers Asphalt Rally Championship, was awash with young talent, both behind the wheel and in the navigator's seat of all sorts of wonderful machine. Nigel's navigator for the day was Chloe Jones, the 18 year old daughter of one of Nigel's best friends. She's taking a Motorsport course at Myerscough College and has begun to drive competitively on cross country events. These rallies are a hotbed of up and coming talent and it's great to see the dedication they put in.

This was Chloe's first time as a navigator and actually her first ever rally; somehow I don't think it'll be her last. The partnership of Nigel and Chloe brought the TR4 home in a credible 5th place amongst the historics and 1st in their class, which really ain't half bad.



Nigel had to take care over some very rough ground and he's always going to lose out to some of the top prepared and extremely nippy little Minis, but not only did the pairing achieve a worthy finishing position, his enviable record of finishing every event he and the TR have entered also remains intact. Praise indeed.

In conclusion I'd like to state that I'm certainly not in the 'keep it concours' camp. I think it's wonderful to see a car kept in dry storage and preserved for all to see, and yet somehow it seems a little unfair on the

car, a bit like keeping a bird of paradise in a cage. Of course it's a beautiful thing to look at, but wouldn't it be nicer to see it fly? If the finishing position of Nigel's TR4 is anything to go by 'flying' is the right word to use. So go on, take a look at Historic Rallying? Whether as competitor or spectator, you may surprise yourself at how much you enjoy it.

Useful Addresses;
 Historic Rally Car Register – www.hrcr.co.uk
 Motor Sport Association (MSA) – www.msauk.org ■





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TRIUMPH TR4

A popular choice on both sides of the Atlantic, this smart-looking two-seater is still winning hearts today. We look at what makes the ever-zestful TR4 tick and how to buy a good one

Iain Wakefield Senior Contributor



The TR-badged series of two-seaters produced throughout the 1950s and early 1960s by Standard Triumph are probably the most fondly recalled sports cars ever built by the company. From the fashionable streets of London, Paris and Rome to the skyscraper-lined boulevards of New York, Los Angeles and San Francisco these popular, back-to-basics roadsters helped ignite a trail for the British built open-topped sports car that's still blazing brightly today.

Although the TR3 proved a massive hit for Standard Triumph on both sides of the Atlantic and beyond, by the end of the 1950s automotive tastes were starting to mature. To match the changing trends, Triumph desperately needed a new model to replace the ageing TR3 but to do this economically, it was decided to retain as much of the outgoing model as possible. Developed as project Zest and introduced in 1961, the totally restyled TR4 was essentially a TR3A's rolling chassis topped off with a handsome Michelotti-designed body.

The TR4's sharp new Italian-designed suit was not only wider and lower than the outgoing model, but the redesigned cabin now offered more space for passengers and their luggage. In place of the TR3's trademark cut-down doors and fussy wet weather gear, the new sports car featured a pair of straight-topped doors with the luxury of wind-up windows – a first on a Triumph-badged TR.

As well as offering the TR4 as a soft top with a folding canvas hood, Triumph also produced a version with an optional 'Surrey' top, comprising a removable metal centre section and a curved fixed rear screen. Unfortunately, the metal centre section of what was essentially a Targa-style roof couldn't be stored inside the car, so a foldable canvas top was carried in the boot to fill the gap and protect the occupants from the elements.

Power for the Triumph TR4 was mustered by a 2138cc inline-four rated at 100bhp at 4600rpm and drove a live rear axle through a four-speed gearbox offered with optional overdrive. Given the right conditions, Triumph's latest TR could accelerate up to 60mph in 10.7 seconds and go on to a top speed of just over the magic 100mph.

Rack and pinion steering sharpened up the TR4's handling when compared to the previous model's cam and lever set up and in 1965 Triumph unveiled the revamped TR4A featuring a redesigned rear chassis section to accommodate an independently sprung rear axle featuring trailing twin arms and coil springs.

Although the motoring press considered the new independently-sprung TR4A to be a great leap forward over the outgoing TR3, —>



distributors in the US thought differently. At the time, independent rear suspension was considered the work of the devil in North America, so the majority of TR4As that ended up Stateside retained a live rear axle set-up.

When it came time to replace the TR4A with a new model, a major rethink was required and in 1967 Triumph, now part of Leyland Motors, took the covers off the six-cylinder powered TR5 – a red blooded two-seater that went on to open a fresh new chapter in the history of the iconic range of TR-badged sports cars.

WHAT TO LOOK FOR

ENGINE

The TR4's 2.2-litre Standard-sourced OHV inline-four was originally developed as part of a contract to produce an engine for the Ferguson TE20 tractor. Although these units tend to be rather coarse and don't like being revved too much, they do produce a decent amount of torque and a TR4 in fine fettle will certainly give a 1.8-litre MGB a good run for its money.

Unless the engine is seriously worn, oil consumption should average out at around 600 miles a pint. However, a major issue that can affect a TR4 engine is water getting into the coolant. These engines have wet cylinder

liners that rest on two figure-of-eight seals in the bottom of the block. If the seals are shot, coolant will leak into the sump and mix with the oil. So check the condition of the coolant and be suspicious of any mayonnaise-type gloop lurking in the header tank.

While the engine is idling, listen carefully for any rumblings from deep down in the block that could indicate worn bearings. Light rattling from the front of the engine will be from a worn timing chain but don't worry if the engine has several light oil leaks, as that's quite usual. While looking around the bottom of the engine bay, don't forget to inspect the condition of the rubber engine mountings.

Worn crankshaft thrust washers can be a problem, which means it's not advisable to sit in traffic with the clutch pedal pushed down. Inserting a large screwdriver or pry bar between the bottom pulley and block is the easiest method to check for worn thrust washers on a TR4. Excessive crankshaft endfloat will indicate worn washers.

TRANSMISSION

The TR4's clutch is fairly heavy to operate and to disengage the drive the pedal needs to be fully pushed to the floor, otherwise the gearchange will be noisy. Despite being heavy, the shift itself should feel reasonably

positive. Synchromesh is only fitted to the top three ratios on most boxes and weak synchro on second gear is a common issue. The good news is these gearboxes are as tough as old boots and even a noisy box should still have a lot of life left in it before a major overhaul is required.

Overdrive was a desirable optional extra on these cars and gives the four-speed gearbox a useful extra couple of ratios. To avoid the overdrive snatching, it should only be engaged and disengaged when cruising and not while accelerating hard. A non-functional overdrive may be down to a faulty steering column switch, issues with the wiring or a stuck solenoid.

BRAKES

The braking set-up on the TR4 and TR4A consists of discs at the front and drums at the rear and the system should be checked for leaking fluid, worn discs/pads, cracked flexible hoses and corroded brake lines. Some cars may have been upgraded with a servo but this item wasn't fitted to the TR4 as standard.

On the TR4, the handbrake is a 'fly-off' type and to operate it correctly the lever has to be pulled up to apply the brake and the button on top of the lever pushed down to lock the handbrake in place. The brake is released by pulling the lever up sharply until the button pops off, then the lever can be let



TECH SPECS

1964 TRIUMPH TR4

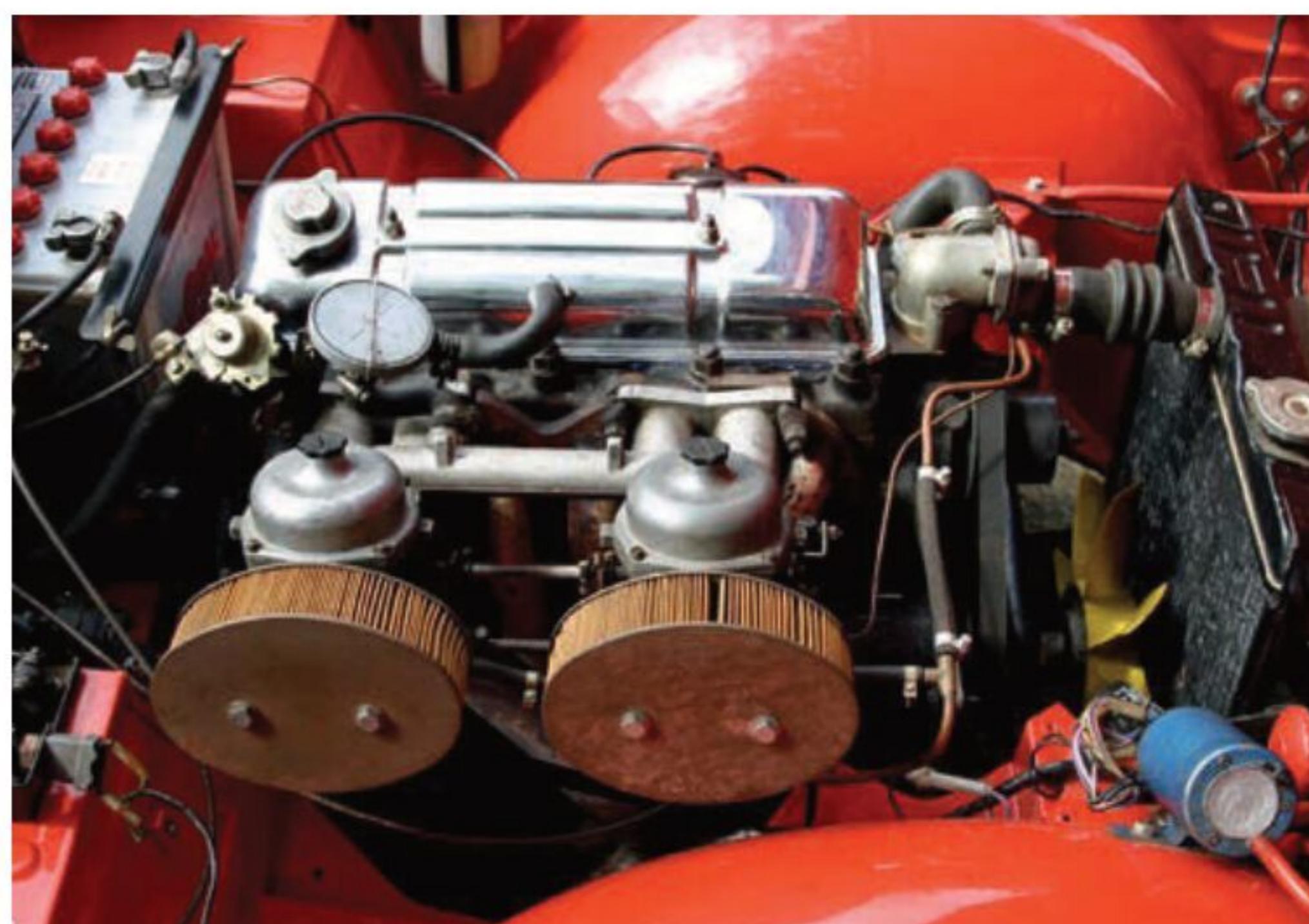
ENGINE:	2138cc 4 cyl
MAX POWER:	101bhp at 4600rpm
MAX TORQUE:	128lb.ft at 3350rpm
TOP SPEED:	101mph
0-60mph:	10.7sec
LENGTH:	3.94m
WEIGHT:	999kg

go and released. When parking on a hill, it's advisable to leave the car in gear, just in case the hand brake 'flies off' of its own accord.

SUSPENSION & WHEELS

At the front, the TR4's suspension set-up comprises upper and lower wishbones, coil springs and telescopic shock absorbers. Checks should include inspecting the dampers for leaks, looking for broken springs, worn or seized steering and suspension joints, as well as any perished rubber bushes.

Depending on the model, the rear suspension will be either a live rear axle supported on semi-elliptic leaf springs, or an independent set-up comprising trailing arms, coil springs and twin driveshafts. →



Checking the rear suspension on a TR4 with a solid rear axle should include the condition of the leaf springs, shackle bushes and the telescopic dampers. On IRS cars, the state of the large trailing arm bushes and the security of the metal around the mounts should be carefully checked. The driveshafts on these cars have four universal joints that should be checked for any play – any clonks during a test drive would point to a worn UJ.

On IRS models it's also important to inspect the rear hubs for play. Any movement in the hubs mean they are scrap and need to be replaced ASAP. If the car's fitted with wire wheels, check the condition of the spokes by gently tapping each one and listen for any that sound 'dull', which means the wheel will be scrap.

BODY

While inspecting the bodywork, it's important to stand back and carefully

examine the overall condition while checking the symmetry of all the panels. All the shut lines should be reasonably equal – if a door gap looks bigger at the top than it is at the bottom, suspect the body has 'hogged' due to corroded chassis rails.

Your fingertips are extremely sensitive and by slowly running them over each panel, it should be easy to detect any poorly-formed curves and even minor paint defects, such as micro blistering. To check for excess filler, wrap a cloth around a fridge magnet and gently run it over any suspect areas to detect non-metallic areas. Next, open the bonnet and check the condition of the exposed inner wings, front panel, rear bulkhead and all the visible parts of the front chassis legs.

Before diving underneath the car, take a look at the condition of the front and rear valance and the leading edge of the bonnet, as well as the lower part of the sills (especially at the rear), front and rear wings

and the inside of all the wheelarches.

Although the TR4's chassis is a sturdy affair it can still corrode, so an inspection should concentrate on the condition of the front and rear legs, as well as all the outriggers and suspension mountings. Be particularly aware of any MoT-style welded patches on the chassis rails, as these may be hiding a can of rusty and very expensive-to-repair worms.

INTERIOR & ELECTRICS

A shabby interior may not look great, but it's a good negotiating point if this is the only major fault found with the car. Replacing a tatty interior on a TR4 is well within the remit of a keen DIY owner and everything required to smarten up a duff interior is available from specialist suppliers. Sagging seats can be improved by replacing a split rubber diaphragm with a brand new one and crumbling seat foam is also relatively easy to replace. Some cars may have had their



original seats replaced with more comfortable ones from a Mazda MX-5.

While the TR4 has a painted dashboard, the TR4A was fitted with a wooden veneered affair and this can discolour and crack with age. Again, this is a repair well within the scope of a keen owner. Plastic dash tops and the lower padded crash bars can crack and wrinkle with age, but replacements are available.

Brand new original-style soft trim, like carpets and side trims are all obtainable from specialist outlets and many different and even bespoke styles are available. While checking the condition of the dashboard and instruments, take a look at the 'H' frame that straddles the gearbox cover. This also locates the radio and if it's not been replaced

correctly, the dash will wobble around.

Finally check all the switchgear works and don't forget to inspect the condition of the soft top if the hood frame is folded away. On cars equipped with a Surrey top, take a look at how neatly the panel fits and check the seals are in good condition.

VALUES

When viewing a TR4 or a later TR4A, it's important to research the car's history to see whether it's a repatriated example that's been converted to right-hand drive. This shouldn't really affect the price, as a top drawer TR4, whether it's a home-grown variant or a carefully converted import, will still cost close to £30,000. Rare specials like the hard top Dove GTR4 coupe (1961-64) will

obviously sell for a premium over even the best presented TR4A.

Lowering the sights and opting for an example requiring a small amount of work should be able to flush out a useable car priced at between £20,000 to £16,000 but avoid sub-ten grand TR4s unless a long term project requiring a lot of work is the order of the day. Desirable extras on these TRs include electronic ignition, overdrive, alternator conversion, spin-on oil filter, electric fan, uprated and adjustable shock absorbers, unleaded cylinder head and a mohair or double duck hood cover. Lightweight body panels are acceptable – providing they aren't fibreglass – and a stainless steel exhaust is another very desirable extra to look out for. ■

A ONE-FAMILY TR3

Bill Krause took his first trip in this TR3 when he was brought home as a newborn child from the maternity unit. A few years have passed since then, but he and his dad are still driving around in the little roadster, and still loving it.



It was 90 degrees Fahrenheit, with so much humidity it was difficult to take a deep breath. Ordinarily I wouldn't run the car on such a day, but today was different. Today was special. I slid in behind the old banjo steering wheel and inserted the diminutive rectangular key into the ignition. With a click to the right, the four centre-mounted gauges bounced to life. I pushed the starter button and the reliable 2.0-litre spun right over – it's been retrofitted with a gear-reduction starter and while the strident purists will likely object to such an upgrade, it really does improve the enjoyment of the car.

As I drove down the road, I reflected on the fact it was 59 years to the day since I

first rode in this car. Not just rode in any 1956 TR3, but in this very one. It occurred to me that his is likely to be a club of limited membership. There are many, many stories of people who have gone out and bought that car they first lusted after or the car their fathers had when they were young. It is wonderful when people have such strength of conviction to pursue the dream, but my story is a bit more unique.

My Dad bought the TR3 new when he and my mother were living in upstate New York. When I say upstate, I mean only 40 miles from the Canadian border, in a town that regularly receives over 100 inches of snow during winter and where temperatures can be -10 degrees Fahrenheit. It was a daunting

climate for a car with side curtains and an under-performing heater, although the car did have the factory hardtop. Dad would bring the battery into the apartment at night, so it had enough cranking power in the morning. Mom and Dad were originally from Brooklyn NY, and they would regularly make the five-and-a-half-hour drive back to the city on weekends.

Dad was always far more interested in English and European cars and Formula One racing than American cars. He participated in a number of rallies – including the 1000 Island Rally that straddled the US/Canadian border – with my Uncle Bob. They also dabbled with my Uncle's Volvo PV444 and ice raced a Saab 96. Late in the 1950s, Dad's →







—> job brought him to Minneapolis in Minnesota. That was another climate which was not particularly friendly to a TR3!

That is where I come into the story. On a warm summer's day (it wasn't all snow drifts and freezing temperatures!) my mother walked out of the hospital with a nurse in tow. Dad had the Triumph at the kerb. Mom climbed into the car – roof down of course – and the nurse placed yours truly in her lap. No child restraints or specialized car seats in those days. No soft padding on the dash, either. Not even a seatbelt.

The Triumph remained the only family car all year round, but things change and families grow. Dad was feeling like the old wet-liner 1991cc powerplant was a little tired and needed freshening, so it was removed in our garage using home-made A-frame stands and a metal rod to serve as the hoist. By this time Dad had taken a part-time job selling cars at Imported Car Service in St. Paul, MN. He brought home a Sunbeam Rapier just in time for my brother's arrival. It was, after all, 'the family man's sports car' or so they claimed. We had also inherited Grandma's

1962 Oldsmobile Holiday 88. So the Triumph's engine and transmission assembly were relegated to a corner of the garage, the car was wrapped in tarps and pushed behind the house under the eaves near the chimney.

When I was 6 or 7-years old, I discovered my way through the covers and into the cockpit of the car. I was taken by the array of switches and gauges and that large steering wheel. I would sit in there for what seemed like hours pretending to drive.

When I was 10-years old we moved to a larger house. Two important changes came with the new home my brother and I no longer had to share a room, and most importantly the garage was large enough to give the car proper shelter from the elements without it having to sit outside under tarps. The added benefit was that it was far easier for me to sit in the driver's seat and dream.

Fast-forward to the middle 1990s. During the previous dozen years, I had already gone through a 1970 Spitfire, a 1973 MGB and a 1964 Austin-Healey BJ8. Through my ownership of these cars I became friends with Mark Brandow, the owner of —>



The tub was then brought out to a local guy far west of the city. John Littlefield was a bodyman by trade, but also had a shop at his home for side projects (along with a bunch of pigmy goats!). He was a master of his craft – methodical, meticulous and economical. He worked on a pay-as-you-go basis, so Dad and I would drive out to visit him each month to inspect the progress and pay for the work done. It was probably the better part of 24 months before he completed the work.

Meantime, my job was working the catalogues and telephones (pre-Internet days!) to gather all of the required replacement pieces. Moss Motors here in the States was my main

go-to for most of the hard parts and I became telephone pals with a guy called Stu. British Victoria and the Roadster Factory were also utilized.

Freshly painted in old English white, the tub was carefully mounted on a trailer and brought back to the front parlour of Quality Coaches. The space was really more like a retail showroom, but that's where the staff began the methodical process of putting all the pieces back together. I would visit regularly to watch the progress. We did our best to reuse as many original parts as we could, and happily things like the original front bumper and rear bumperettes could be put back into service. So could the windscreen, knockoff wire wheels, steering wheel and all the instruments. (The mileage on the odometer is pretty close to the accurate number of miles traveled.) I'm told the original overdrive switch is a highly coveted item.

It was late October in 2000 when the work was completed and I had the privilege of driving the rebuilt car for the first time. It was a brisk autumn afternoon, and because it was so late in the season I was driving the car directly to its winter storage spot. Naturally the top was down, while the rest of the cockpit was covered with a tonneau cover – the original one that had come with the car.

In the meantime, Mom and Dad had retired and moved south away from the snow and ice. There are two ways to truck a car cross-country: enclosed or open. The open option is far less expensive, but the car is exposed to the elements while in transit. This is the popular choice of Snowbirds (people who split their time between the north and south) and fine for shipping a Hyundai SUV, but the following spring the reborn TR3 was loaded onto an enclosed semi-truck for the



the local English car shop called Quality Coaches. As luck would have it, the shop was only four blocks from my apartment in the city. All three cars were fun and enjoyable experiences, and all were inspired by the car still sitting in repose at the back of the garage. My affinity for English sports cars made me an anomaly among my friends, who were all buying V8-powered Mustangs and Camaros. Blame Dad for that!

I had told Mark about the Triumph, and he was always game to look at it to determine if it was a candidate for a restoration project. Finally, Dad decided it was time to make the move. Mark brought his truck and trailer to the house and we pushed the car out into the sunlight. The bright light revealed the true picture after 30 years of decay. Following a thorough clinical examination, we were given the prognosis: the patient could be saved, but the challengers were significant and it was not for the faint of heart.

However, Dad was made of sterner stuff and not to be deterred. The car was systematically stripped down, leaving the only the main tub – from the firewall to the rear of the trunk – and the frame. A lot of the chrome pieces could be reused and were set aside. Pieces like the wings and floors were scrapped. Thankfully the frame was solid and salvageable, so it was blasted, painted a glistening black and readied for the suspension rebuild.

The tub was trailered south the Kansas City where it was dipped in an acid bath of some sort. The acid would quickly eat away rust and corrosion and saved a great deal of handwork with blasters and wire brushes. It returned in a pale green color – not a manly green like the Incredible Hulk, but paler like Shrek.





1700 mile trek to the friendlier climes of southwest Florida. The Triumph had some good company on the ride south, including a Porsche 911SC and a Pagoda Mercedes-Benz (a newer more bulky model, not the one of the beautiful early ones).

Since arriving in the Sunshine State, the TR3 has been to countless shows and garnered countless trophies for 'Best in Class,' 'Best British Car' or just about any other 'Best' accolade you can think of. Space was made in the house for the first few prizes, but then they came more frequently and the plaques, medallions and ribbons are crowded onto a shelf. It is still a testament to the fine work done bringing the car back though, and a real source of joy and pride for Dad.

Of all the shows the car has seen, the most rewarding was the Vintage Triumph Register's annual national meet. It was a daylong journey (driven, not trailered) to Jekyll Island in Georgia where the car was

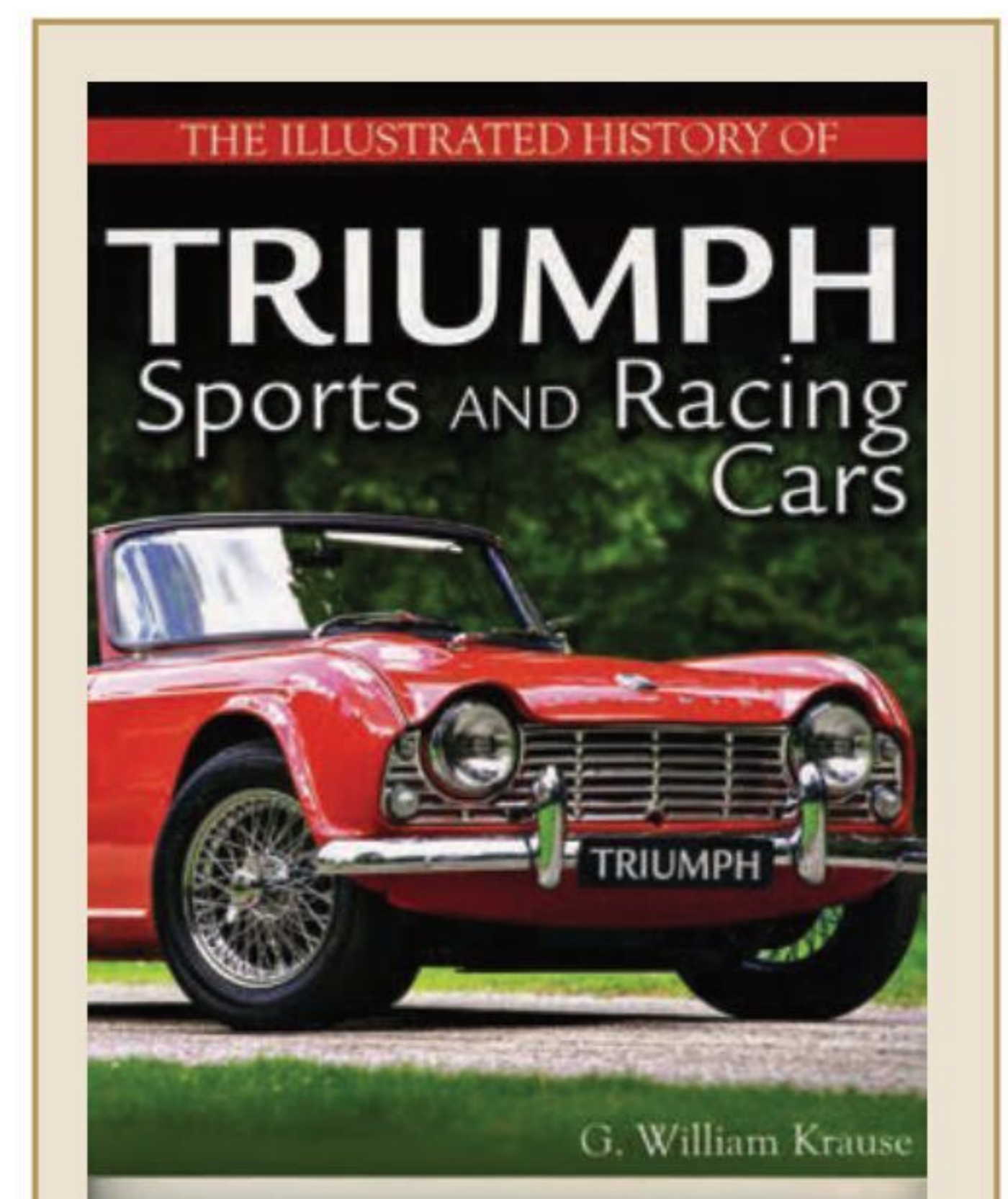
awarded 367 out of 400 points and finished second in class that year. A pleasing result no matter how you look at it, but especially pleasing when you realise it was 10 years after the restoration had been completed.

Unfortunately, with this type of judging they do not tell you why points were deducted. We must figure that out ourselves and return to be judged again in hopes of a higher score. Perhaps it was the used and tired knockoffs? Perhaps it was the wiper motor sourced from a 3A? We have work to do.

This car is an early TR3, a 'small mouth' as the vernacular goes. A grand total of 13,337 TR3s were built between 1955 and 1957, but we have narrowed this car down to one of fewer than 5000 built as somewhere between 4000 and 5000 of the first TR3s has drum brakes on all four corners. Because the TR3 is famous for being the first production car with front disc brakes, it is automatically assumed all TR3s have front disc brakes.

Some have asked if this is a TR2 with a changed front apron.

After 64 years of unbroken ownership, this TR3 remains a constant source of enjoyment for my Dad and me. I will look forward to driving it on my 60th birthday. ■



The Illustrated History of Triumph Sports and Racing Cars
By G. William Krause
Softback, 128 pages, 280x220mm, full colour.
ISBN: 978-1-61325-339-7

Bill has put his lifelong enthusiasm for British cars to good use and written a book that reviews every model in Triumph's sports car line-up. The text and copious illustrations cover the history, design evolution and performance specifications from the 1930s through to 1981. It also looks at the 'what if...' cars that never made it into production, and also includes the saloon cars that underpinned Triumph's success, and very often its survival too. The result is a book that is sure to appeal to all Triumph enthusiasts, not just those who love the sports cars.



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BRITISH INVASION

National exports and imports have been in the news in recent months in a way that they haven't been for decades. We survey a selection of British cars that found success on the foreign markets.

WORDS: JACK GROVER

The 1960s were almost certainly the British motor industry's golden age – the business was thriving as more and more people bought more and more cars. Despite various mergers of the previous decade most of the traditional marques were still in existence, and the industry still had a near-total hold over its domestic market. Five per cent of the entire national workforce – a million people – were in the car-making industry.

It was also the last period in which British cars were widely exported. Although the UK had lost its spot as the number two car maker (behind the USA) as the decade began as other nations recovered from their wartime ruination, we were still third until 1966 and fourth when the decade ended. Although the economic ties to the Commonwealth were looser than in previous decades (and were loosening further all the time) but still gave



were being built in a network of overseas plants, both from kits of parts sent from the UK and as true local manufacture (and a wide spectrum in between).

So let's look at some of the products from this golden age which flew the flag abroad.

MGB

The MGB's predecessor (logically enough, the MGA) holds the record of being Britain's most exported car, as only six per cent were sold on the home market. The MGB's appeal was more equal but of the 512,000 'Bs built between 1962 and 1980 nearly 400,000 – over 77 per cent – were sold abroad. The proportion of MGBs sent for export steadily increased over the car's long production life – by 1977 British buyers gave homes to 2262 MGB roadsters while those beyond our shores bought 22,228 of them.

By the time the MGB arrived it was clear to all British sports car makers that the USA was their lifeblood but the market was getting tougher. Not only were there other competitors from Britain and Italy but Detroit was getting into the game with its own very American take on what British sports cars had to offer with products like the Corvette and the Thunderbird. Tastes were also changing – the MG buyer for the 1960s was less likely to be a 'gearhead' and more likely to be a college student or a young professional (either single or without children) who wanted a good-looking car that was fun to drive.

So the MGB was designed from the start to combine sports car handling with saloon car comfort – a tall order. Cockpit space, ride comfort and noise levels (not to mention handling) were all greatly improved by an allnew unitary →

British cars preferential treatment in many places around the world, and in 1960 the UK had been a founding member of the European Free Trade Association, giving tariff-free access to six other European nations. The government also worked to reduce tariffs on cars exported to the European Economic Community after Britain's application for membership was declined in 1963, leading to an 85 per cent increase in British cars exported to Europe between 1963 and 1965.

In that year 1.1 million cars were sold in the UK, of which just five per cent were imported (a large chunk of that five per cent was accounted for by the Renault Dauphine and the Volkswagen Beetle). Of those 1.1 million cars, 484,000 were made by the British Motor Corporation. But British car factories built a total of 1.8 million cars, leaving 700,000 to be sold elsewhere. This was also still an era when British car designs





bodyshell, incorporating full-height doors, winding windows and a flip-up hood. For cost reasons the B still used rear leaf springs, although they were much longer (offering a softer and more progressive ride) than those used on the A. The proven B-Series engine was retained, but in a new 1.8-litre capacity. The rest of the running gear – front disc brakes and rear drums, rack and pinion steering, a four-speed gearbox with optional overdrive – was almost straight from the MGA which itself carried a lot of over from the TD and TF Midgets.

The combination of familiar mechanical parts in a brand-new body proved a winner – both in terms of sales and in competition. For all its refinement and creature comforts the MGB was still a joy to drive and a strong performer in standard trim and could be up-gunned into a serious bit of kit relatively easy. In its first full year of production the MGB nearly doubled the best export sales performance of the MGA (12,900 cars against 20,200) and only dipped below the record set by its predecessor in one year between 1962 and 1980. From 1965 the fixed-roof liftback GT version of the MGB was available. By 1968 the GT was outselling the roadster in Britain and by 1972 more home market GTs were being sold than export. In warmer climes the roadster remained by far the popular choice – by the late 1970s fewer than 200 export-spec GTs were built each year.

Of course, the importance of North America to the MGB's existence was to be a source of trouble in its later years as it had to be kept in compliance with the stream of safety and emissions regulations that American adopted from the late '60s onwards. And so came the padded steering wheel and the 'safety pillow' dashboard (fortunately to always remain an exclusive for American-market MGs!) and then, from 1974, the rubber-faced impact bumpers and the raised ride height which were applied to all cars due to the structural changes required in order to fit them. But it's always important to remember that whatever the bumpers and the jacked-up springs did to the MGB's looks and handling, they didn't adversely affect the sales potential of the B – especially in North America. Sales actually increased slightly in 1974 and 1975 and then reached an all-time record for exports – 23,969 cars – in 1976. Unfortunately the late 1970s saw the exchange rate between the pound and the dollar move and it swiftly became unprofitable to sell British-made sports cars in their main market. This led to the decision not only to end MGB production without a replacement but to close the Abingdon factory for good.

AUSTIN-HEALEY 3000

In stark contrast to the svelte, accessible MGB was the big and brutish Austin-Healey 3000 – an uncompromising heavyweight of a sports car that was rather old-fashioned from the moment it was introduced in 1959 and its fans loved it all the more for that reason. The 3000 was a direct descendant of the original Austin-Healey, the 100, designed by racing driver-turned-constructor Donald Healey and officially backed and sold by the Austin motor company. A 3.0-litre C-Series engine making 130hp, a top speed of 114mph and potent



acceleration; the appeal of the 3000 wasn't so much in its ultimate performance but in how easily it could use it – an MGB could be wrung out to 100mph or more given enough space, but a 'big Healey' could do it with relative ease, repeatedly and in entirely stock form.

With its snug cockpit, side screens and a hood that had to be dismantled like a tent and stowed in the boot (which was otherwise mostly filled with spare wheel), firm short-travel ride, heavy steering and loud exhaust the Healey had a decidedly racy character, marking it out as the enthusiast's choice. BMC campaigned the Healey heavily in all its forms, favouring the sturdy but nimble car with its big all-iron engine in rallying. Pat Moss won the Liege-Rome-Liege rally in 1960 in a Healey 3000 and drove the same car to second place in the Coupes des Alps the same year, following it up with a silver medal place in the RAC Rally in 1961. In America the 3000 was favoured more for circuit racing, with the type dominating the Sports Car Club of America series across multiple classes in the years after its introduction. By 1963 over 90 per cent of all the Austin-Healey 3000s built were sent to North America and production was running at around 5,000 per year.

The Healey's steady evolution slowed to a crawl in the '60s – its fans wouldn't have accepted anything else – but 1962 saw the introduction of a 'sports convertible' body instead of the traditional roadster, with a fixed wraparound windscreen, winding windows and a folding hood. The MkIII of 1964 had more power (150hp), standard-fit servo assistance for the brakes, a new dashboard with a walnut fascia and safety padding, a new design of centre console and redesigned seats. The MkIII was only available as a 2+2. A few months after its introduction the MkIII's chassis was redesigned to incorporate trailing links for the rear suspension and to increase the ground clearance as customers were complaining that the low-slung exhaust silencer kept hitting the ground when travelling over crests or bumps at high speed.

Production of the Austin-Healey 3000 ended in the summer of 1967. Donald Healey and BMC had been embroiled in discussions to replace it with an all-new sports car design, but in the end the car's direct replacement was the MGC – an MGB reworked to accept the C-Series engine, with revised front suspension.

It was not of the same spirit or capabilities as the 'big Healey' and was only on sale for two years...although three-quarters of them were still exported! Today the MGC has its fans, but the Healey is still by far the more desirable and valuable model.



TRIUMPH TR4

The Triumph TR line owed its entire existence to the export market. Standard-Triumph boss Sir John Black was envious of the success (and lucrative revenue) the Nuffield Organisation was gaining with its sports cars and decided to brew up his own. Faster, quicker and more modern than the Midgets MG was offering, the TR2 (and the improved TR3 that followed) quickly earned a fearsome reputation in competition and a strong following at home and abroad – although of course the export sales were by far the greater, with only one in twelve TRs staying in the UK.

Like the Austin-Healey, the Triumph TR3 entered the '60s as a basic roadster fundamentally little-changed from its 1940s origins, and Triumph understood there was a demand for more refinement and practicality. This resulted in the TR4, the first TR to receive the attention of Triumph's new styling consultant, Giovanni Michelotti put on a brand new pontoon sided, blunt-ended body with neat cowled headlamps, a bonnet with a distinctive 'power bulge' to clear the carburetors, a full-width chrome grille and subtle tailfins at the rear.

Winding windows, a fixed hood and a generous boot were all added to the mix. So was a wider, longer cockpit with a wood-finished fascia and new centre console. The TR4 could also be specified with what we would now call a Targa – a fixed glass rear screen (incorporating a rollover bar) behind the cockpit and a removable section between it and the front screen which could be filled either by a steel panel or a fabric 'Surrey' roof.

The style and added refinement of the TR4 went down well with the critics but the model didn't do much for sales – after a



brief pick up on launch, they settled down to a lower average than the TR3 did in its last years – around 8000 cars per year. The problem was that the basic TR formula was old-fashioned against the likes of the MGB, Sunbeam Alpine and Lotus Elan.

The solution was to update the engineering rather than the styling and in 1965 the TR4A was introduced. The big feature was an all-new independent rear suspension system, using coil springs and trailing arms of a design derived from that used on the Triumph 2000 and 1300 saloons, which required a major redesign of the chassis, although the body was unchanged (save for a redesigned grille without the vertical bars) and without the 'IRS' badge on the bootlid it took a very keen eye to spot the very slightly wider rear track.

Handling, grip and stability were greatly improved and the TR4A was the only sports car in its size and price class to boast fully independent suspension. Ironically, while the ride quality was a significant improvement over the leaf-sprung TR3 and TR4, the model now picked up criticism for its stiff ride because expectations were higher for a car with IRS! None the less, the update gave TR sales a much-needed boost, with 13,700 sales

in 1965... of which 11,714 were exported. The TR4A retained that grip on overseas sales until it was replaced by the TR5 in 1967.

MINI

The world is more than North America, and the bits of it which had little desire or need for British sports cars often found a lot of place on their driveways for our saloons, and none more so than the Mini. The ground-breaking little car had been designed with export potential from the start, at a time when large parts of the world still thought and brought British first and foremost when it came to motoring. And the Mini was good enough to appeal to crucial new European markets as well. It's hardly surprising that as early as 1962 around half of all Mini production in the UK (then happening at both Longbridge and Cowley) was exported, and by 1965 exports exceeded domestic sales. That margin kept increasing and by 1970 198,000 British-built Minis were sent overseas while British buyers kept only 80,500.

The Mini's appeal in the wider world was the same as it was here in the UK – no other car could carry as many people or as many things in so small a footprint, it was economical to run and huge fun to drive. →





The Swinging Sixties, the antics of Twiggy and the endorsement of Peter Sellers probably didn't do much for Mini sales in Kenya or Bechuanaland (or Botswana as it became after 1966) but these places – and many others – had their own form of 'Mini mania' and took their share of production.

The biggest Mini markets outside the UK – Australia, South Africa, Italy and Spain – gained local production and local branding but as far as cars exported from the UK went the biggest destinations were France, Denmark, Canada and Switzerland.

France was initially a tough nut to crack for the Mini. It was the arrival of the Mini Cooper, and especially the success of that model in the 1964 Monte Carlo Rally, that turned things around. As in Britain it became the must-have car for young urban trendsetters and supply never again matched demand for this most potent of Minis. The estate version of the Mini, especially with the optional wood framing and Traveller/Countryman branding, became the ultimate chic transport for fashion conscious Parisian ladies in the same period and Paris would remain the heartland of French Mini sales for the next 30 years.

Over 6000 Minis were sold in Canada – mostly via the impressive dealer network built by Nuffield in the late 1940s – in the first year of production and in 1961 it was possible to buy a Mini 'over the counter' at a Montreal department store for a £3 deposit. By the end of the 1960s over 30,000 Minis had been sold in Canada, but changing tastes and the country's economic and political realignment towards the USA saw sales dwindle. Nonetheless, exports from the UK into Canada continued until 1979. Selling the Mini south of the border was always going to be tough.

Americans soon proved only to have time for the 'novelty' Minis and by 1966 only the Cooper S and the Moke were officially listed at American dealers. The first round of safety and emissions regulations in 1967 provided the excuse for BMC to pull the Mini out of America, thus avoiding the shame of MGB style rubber bumpers for the 1970s.

LAND ROVER

The Land Rover was specifically intended to be an export success – the British government allocated rations of strategic material (including steel and rubber) to companies based on their exports and Rover's factory in Coventry had been destroyed in the Blitz so it was faced with starting from scratch at its 'shadow' plant at Solihull. The firm's usual fare of upmarket saloons required a lot of tooling and resources to build and would be hard to sell. In the meantime a simple, rugged four-wheel drive off-road utility vehicle – like the wartime Jeep but optimised for civilian use – would fill the gap.

As it happened, by the time Rover car production got fully underway again the Land Rover was already setting new sales records and clearly had a long-term future. The original Land Rover of 1948 was in some ways compromised by its original stop-gap nature – it used an existing Rover car engine, gearbox and axles which were not really up to the job. Those parts also fixed its major dimensions, as did the fact that its concept was cribbed directly from the Jeep – including its 80-inch wheelbase. Its chassis and structure had been designed for simplicity of manufacture, not long-term durability and zero thought had been given to styling or user comfort. For the model's ten-year anniversary in 1958 the Series II Land Rover was introduced – bigger in every dimension, with dedicated engines, an uprated drivetrain, more body options, and a few deft styling touches

by David Bache which did not in any way detract from its rugged functionality but made it look less like an overgrown Meccano set.

The Series II was also easier and quicker to build and Rover invested in new production capacity both at Solihull and various operations around the world assembling Land Rovers from Complete Knock Down kits. Sales throughout the 1950s had been steady at 28,000 or so, but in 1959 this jumped to 34,000. By 1965 they had reached 45,000 and it would exceed 50,000 by the end of the decade. Over a third of all Land Rovers leaving Solihull did so in kit form to supply 29 overseas assembly operations and 80 per cent of the factory's output was sent abroad.

By this time the Series IIA model had been introduced, which incorporated a lot of very minor technical updates (mostly expunging the last remaining Series I-era parts) and introduced a new enlarged diesel engine option. For the rest of the 1960s Rover continued to refine the Land Rover with stronger transmissions, six-cylinder engine options for the long-wheelbase model, forward control and heavy duty 'one ton' models and detail improvements such as better brakes and electrics.

The dominance the Land Rover had in some markets was incredible – in 1965 over 90 per cent of the 4x4s sold in Australia were Land Rovers. It was a similar story in New Zealand and South Africa, and the 78 per cent share of the 4x4 market in East Africa only seems weak by that





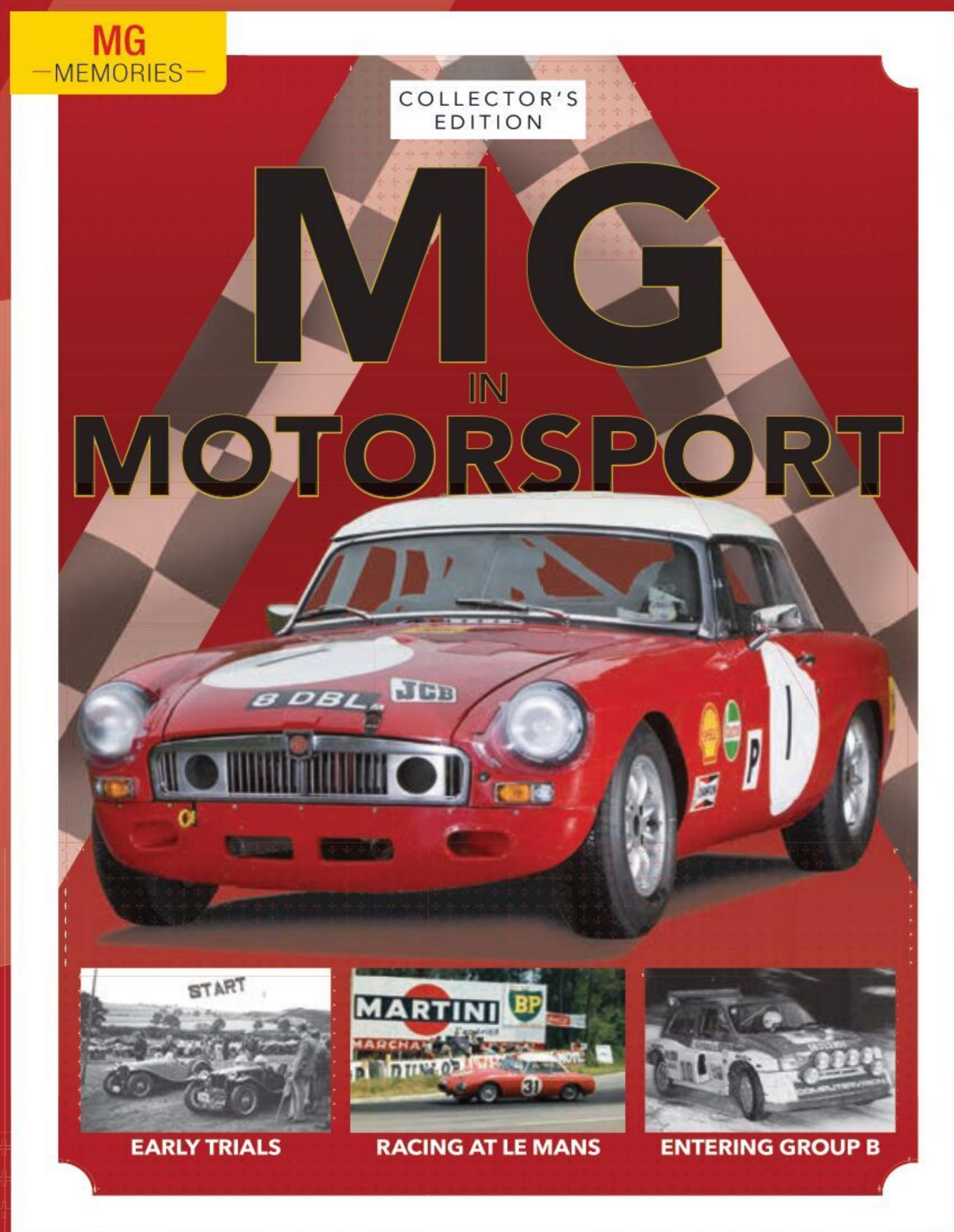
comparison!
Throughout the decade Rover knew that its main issue was lack of production capacity, with only the Solihull factory able to turn out complete vehicles and sales otherwise reliant on the complex and expensive CKD network. And Rover was a small company on a global scale.

By the end of the 1960s the demand for 4x4s worldwide was exceeding Rover's ability to sell them. That provided the means for otherwise unknown names like Toyota and Nissan to get a toehold in the market with more modern products not hampered by straitened post-war origins, with much larger production capacity and backed by greater corporate resources. The 1970s would be one of decline and retreat for the Land Rover. ■

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TOP TEN TRIVIA: TRIUMPH TR4, TR5 AND TR250





The TR4 and TR5 were stepping stones along the evolutionary path that led from the sidescreen cars of the 1950s to the TR6 that took Triumph growling into the 1970s. There were some diversions down blind alleys along the way, though.



Standard-Triumph made several abortive efforts to break into the sports car market in the early postwar years, but finally cracked that lucrative nut with the TR2 of 1953. Styled by Walter Belgrove, this had sweeping wings and cutaway doors with sidescreens rather than winding windows, as was normal for sports cars in this era. It was a highly advanced looking design compared to opposition from the likes of MG, and it proved to be rugged, reliable and capable of 100mph, no mean feat in the early 1950s.

By the time that Leyland rode to the struggling Standard-Triumph's rescue in 1961, the cash-strapped Coventry concern already had a successor nearly ready for production. This was the TR4, with a bigger body, full height doors and wind-up windows courtesy of Italian stylist Giovanni Michelotti. Much of the mechanical underpinnings were essentially carried over from the TR3, but improvements did

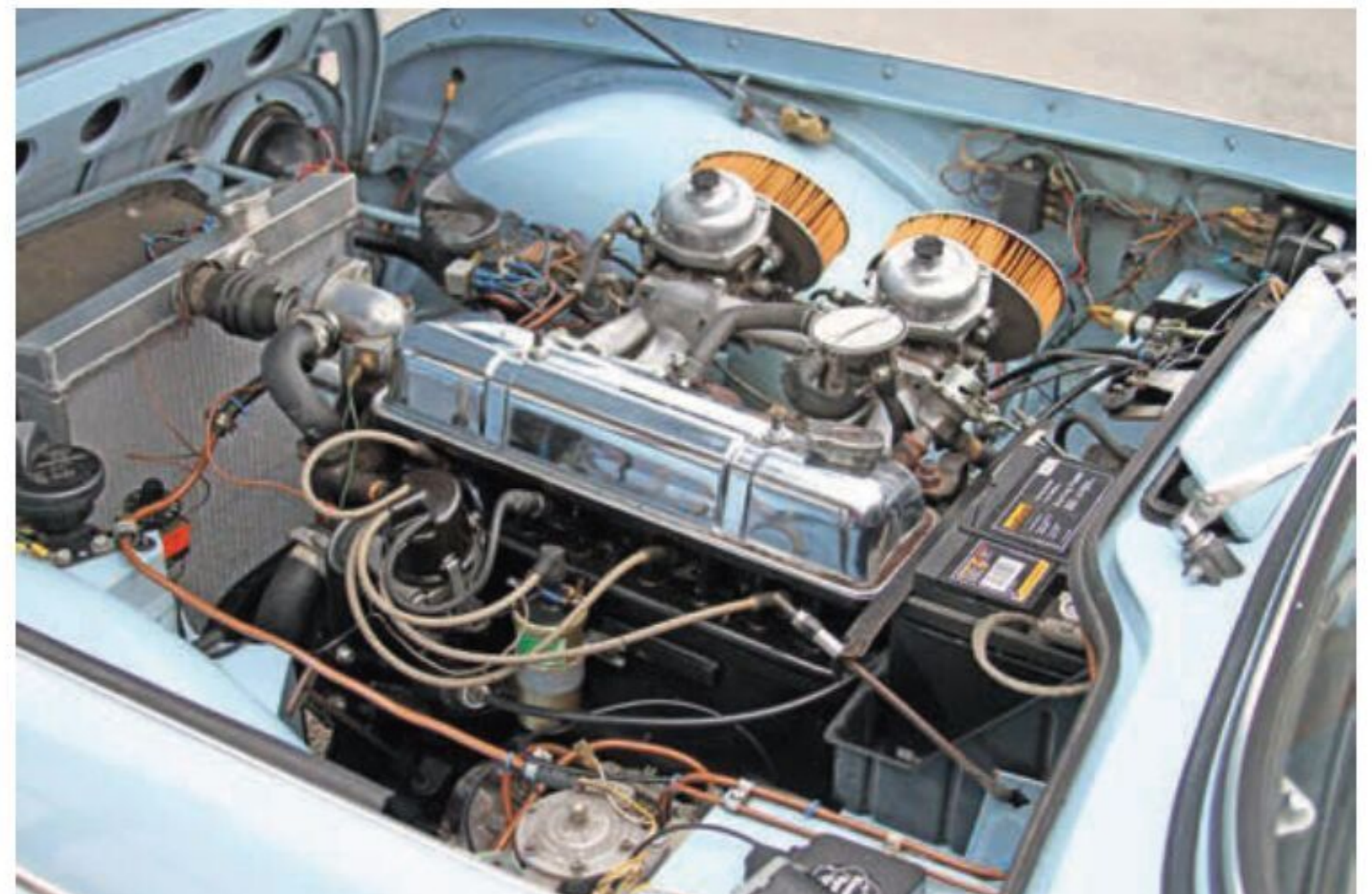
include a steering rack instead of a box. The engine was the same wet-liner four-cylinder unit, now offered in a 2138cc capacity as standard.

The TR4A of 1965 brought independent rear suspension to the party, using coil springs and semi-trailing wishbones to offer impressive levels of handling, grip and comfort. This was carried over into the TR5, whose six-cylinder engine had Lucas mechanical fuel-injection to give a headline-grabbing 150bhp. This was only a stop-gap model though, and just

2947 were produced in a 13-month run, plus a more impressive 8484 examples of the TR250 which lasted a month longer – essentially the same car, but with carburetors instead of fuel injection for the American market.

The TR5/TR250 gave way in 1968 to the new TR6, a car that carried over the TR5/250's engine and running gear along with the central body section, but grafted on a new nose and tail by Karmann of Germany. That, however, is outside the scope of this feature.





1 The four-cylinder engine used in the TR4 was carried over from the TR2/3. It featured wet liners, a feature that Triumph's Harry Webster once said was inspired by Citroen's Traction Avant engine. It is clearly related to the engine that Standard built for the TE20 Ferguson tractors, but you will be disappointed if you think an old TR engine will simply bolt into a tractor. For one thing, in a car the engine is isolated from the body, but in a tractor the engine and transmission form a spine that has to withstand epic twisting and bending forces. So no, the TR was never powered by a tractor engine!

2 Triumph had a habit of re-using prototype names and there were numerous proposals called the Zest, but Zest chassis X684 has special relevance to this story. This was built by Michelotti on a TR3 chassis with a widened track, and became the TR4. This chassis later became the trial-fit guinea pig for the six-cylinder engine, when a 1998cc unit from the Vanguard was dropped in and it was registered for the road as 6206 VC. In 1967 it was restyled by Michelotti with an

aerodynamic nose and pop-up headlights, but still with a bean rear axle that betrayed its 1962 origins. It was eventually sent to Karmann in Germany, who took its tail treatment as their inspiration for that of the new TR6.

3 Even before the TR4 had been unveiled to the public in September 1961, plans were afoot to create a homologation special for competition use. Called the TR4S, this would have had a different chassis (derived from Michelotti's Conrero project) but a slightly modified TR4 body. It would also have had the Sabrina twin-cam engine and independent rear suspension. The TR4S was canned as soon as Leyland took over and the Sabrina engine faded into obscurity, but the IRS appeared on the new 2000 saloon in 1963, and was used on the TR4A from 1965.

4 Perhaps the hardest working of all the factory cars was a TR4 with the registration 5 VC. It started no fewer than 11 major events for the Works team from the Tulip Rally of May 1962 to the Shell 4000

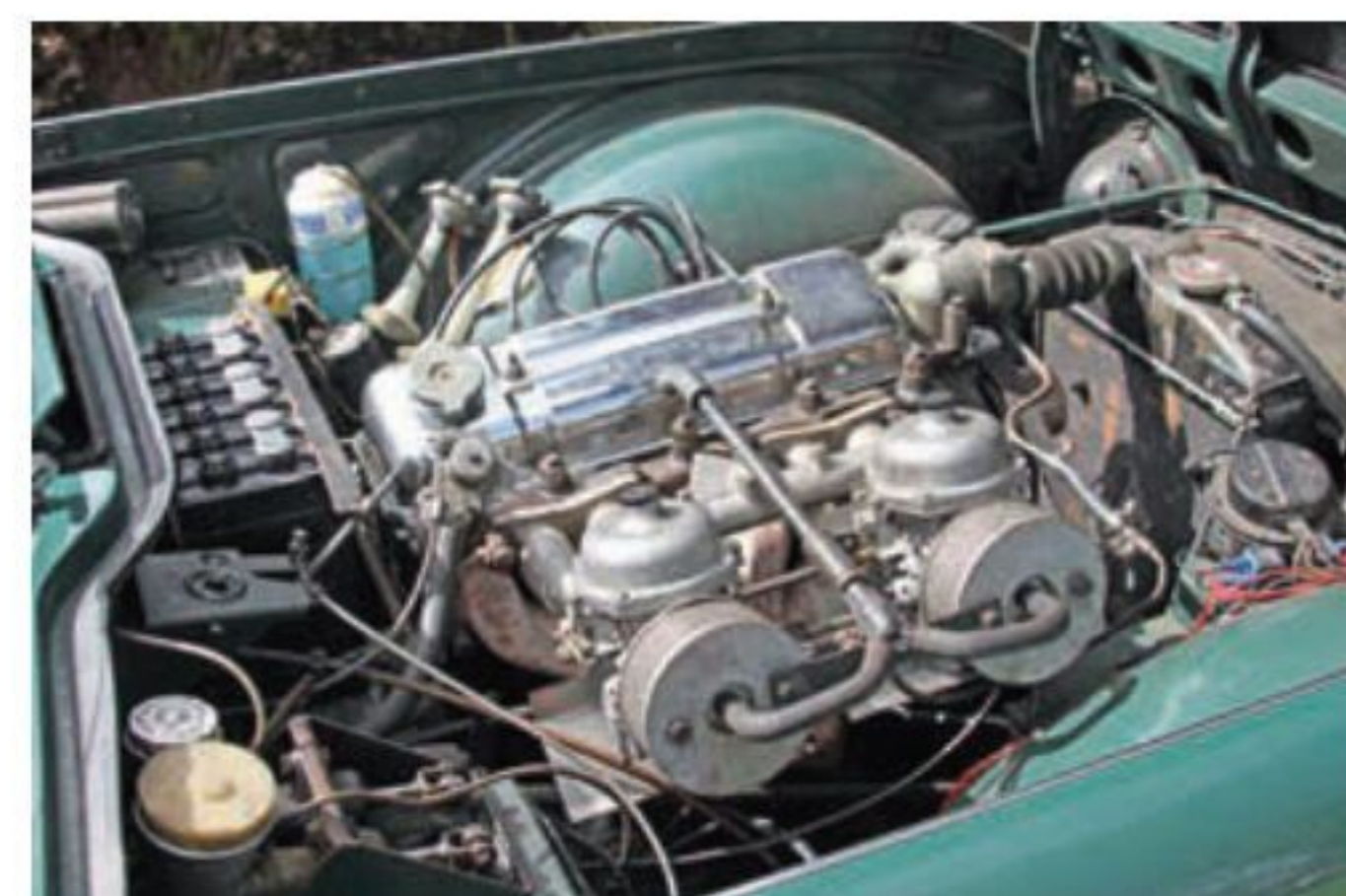
Rally of April 1964. Mind you, it was a bit like Trigger's broom in that it had no fewer than six chassis in that time, including a switch from RHD to LHD and a re-registration in the state of Oregon as CAG 410 – even though the rally itself was in Canada!

5 The TR4 Dove was a GT version of the TR4 that was commissioned by Wimbledon Triumph dealer, L.F. Dove and Co and built for them by Thomas Harrington of Hove (who also built the Harrington Alpines). This appeared two years before MG's BGT, and featured a new GRP rear panel, a 2+2 seatlet and a fibreglass roof permanently attached to the car with an opening rear hatch. To add poshness to the project, Dove added an accent to the e of Dove; it should therefore be pronounced Dovey, but nobody does.

6 The TR5 was the first British production car to get fuel injection and much is made of the power boost it gave, but it was originally intended to help clean up emissions for US cars. In the end, North American cars had to have Stromberg carburetors before they were clean enough to comply. And as Graham Robson wrote in Autocar at the time, fuel injection did not increase peak power all that much. 'Lucas injection in itself is probably responsible only for 5-10bhp,' he wrote, 'but its greatest advantages are that the mixture can be controlled to such fine limits, and in such varied conditions, that a camshaft with much more extreme timing could be proposed while retaining docility and a satisfactory idle.'

7 The late Mike Cook, former Advertising and PR Manager for Standard-Triumph in the USA, once related how disappointed the US top brass had been upon seeing the TR250, as virtually nothing had been done to distinguish it from the aging TR4/4A. So the sales team brainstormed ideas in the parking lot of the USA HQ in Teaneck, New Jersey. →





They came up with a rakish set of three stripes that crossed the nose just ahead of the front wheelarch, some fake Rostyle wheel covers and painting each alternate bar on the radiator grille black to blank it out. They also chose yellow-striped hoses under the bonnet which, according to Mike, have been the bane of restorers ever since.

8 The six-cylinder engine in the TR5 was essentially developed from Standard's SC (Small Car) engine that started out as an 803cc four-pot in the Standard Eight of

1953 and ended up as a 1493cc unit in the Spitfire and MG Midget 1500s. With two extra cylinders added, it ranged from 1596cc in the first Vitesse to 2498cc in the 2500/2.5PI saloons, the TR5 and later the TR6. The engine that later appeared in the Rover SD1 2300/2600 was actually a much-modified OHC version of this six-cylinder engine which lasted until 1986.

9 The 250K was a unique version of the TR250 styled by Pete Brock (who penned the Shelby Dayton Cobra racers) and

championed by Kas Kastner, Triumph's US Competitions Manager, in 1967 to run at the 12 Hours of Sebring. It was built on a shoestring budget, but made it to the race, only to break a wheel one hour in. The car still exists, but Triumph never gave it serious consideration and so it remains a one-off. Donald Healey did walk past it on the Sebring grid though, and according to Kas said: 'That's the most beautiful car I've seen this year.'

10 The TR Register was founded in 1970, a time when production of the TR6 had barely got started and the TR7 was not even a twinkle in Harris Mann's eye. The original aim was to preserve the sidescreen TR2, TR3 and TR3A cars, and as late as 1975 owners of the Michelotti TRs could only be associate members. In fact, it was only after the Triumph factory had closed in 1980 and following much anguished internal debate that the club was opened up to the modern TRs. This year, the Register celebrated its 50th anniversary. ■



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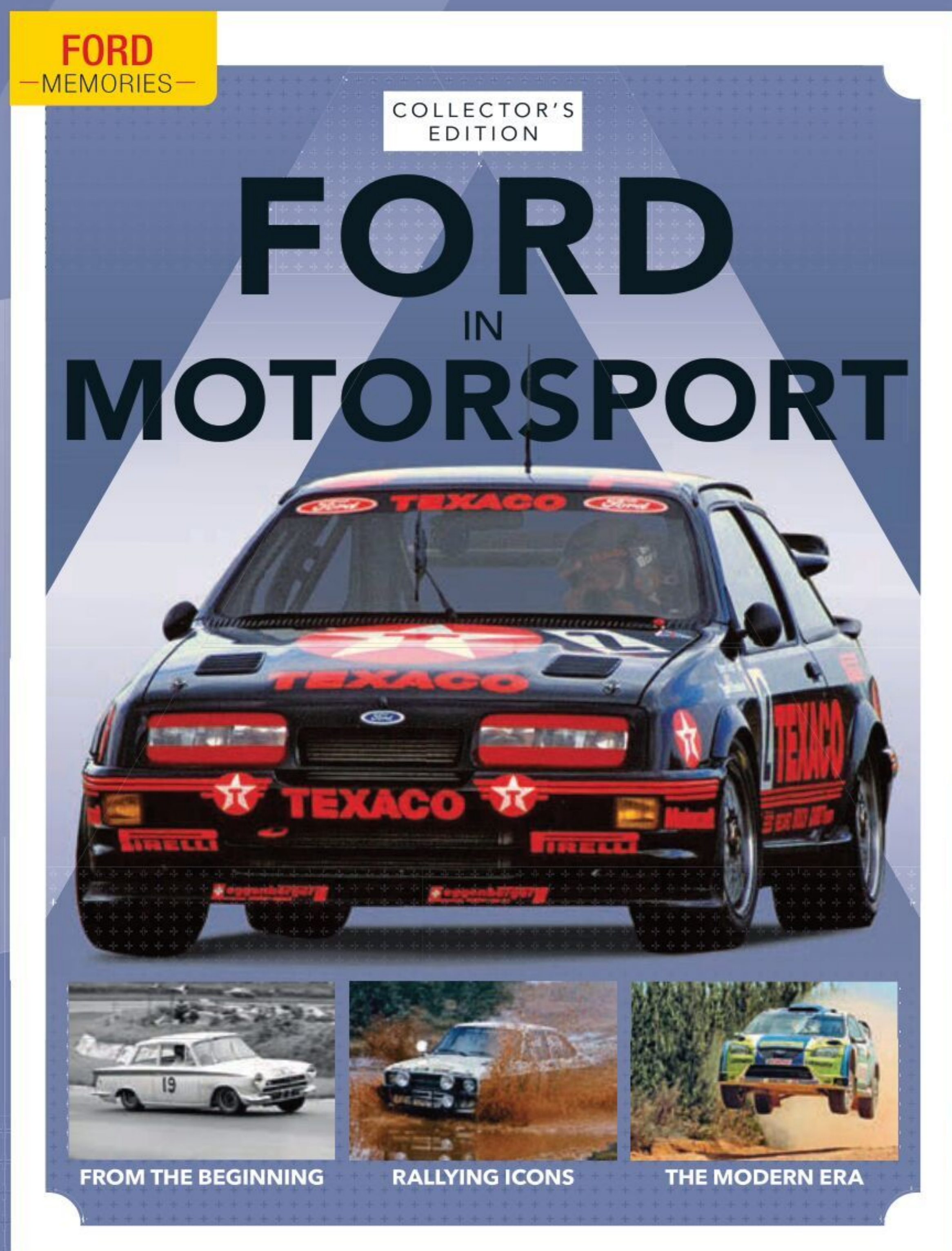
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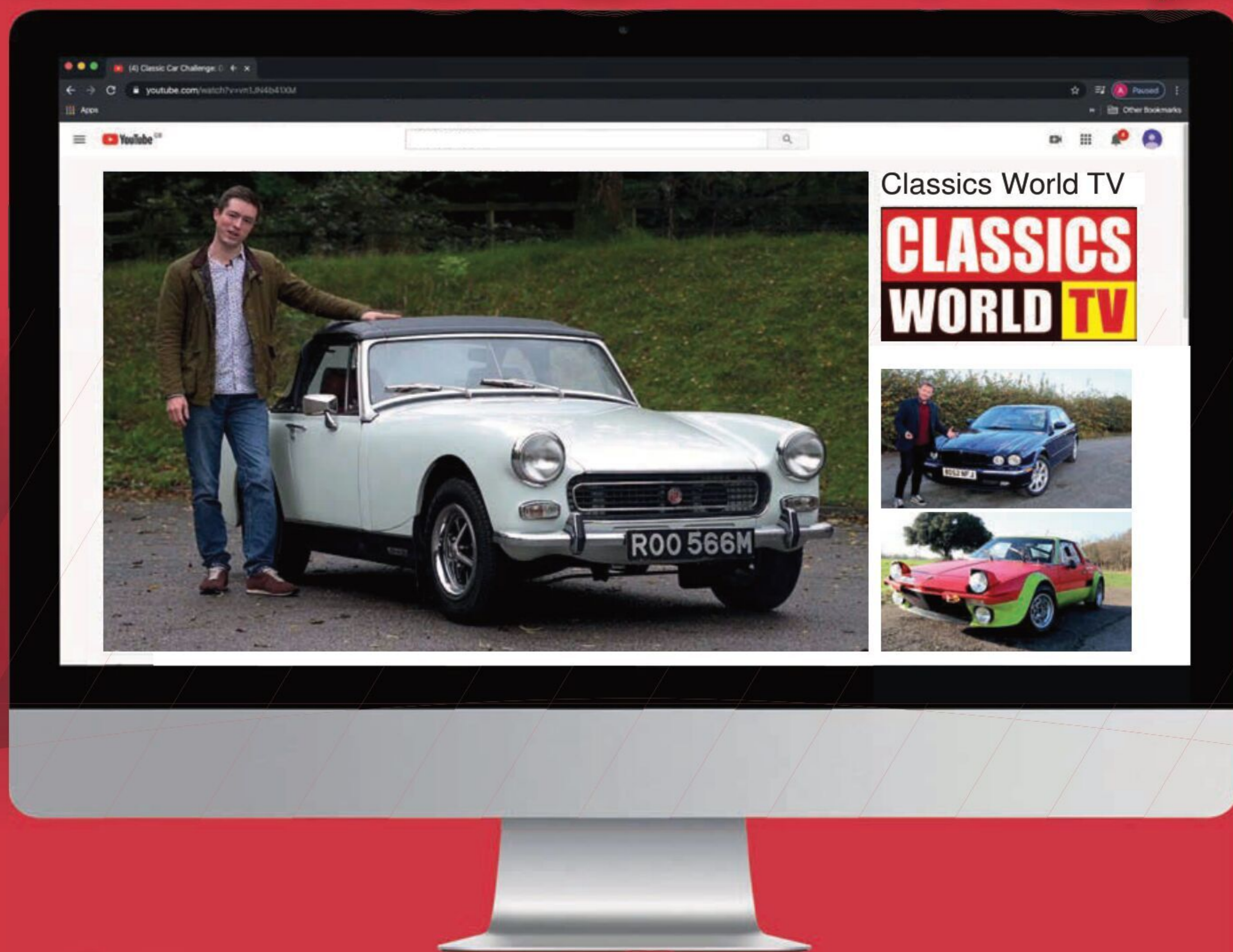
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SPORTING HEROES



Triumph and MG are two giants of the British sports car fraternity and forever rivals: We pit their late-50s offerings head to head

WORDS: **Simon Goldsworthy**





The MGA was famously the car that MG wanted to put on sale in 1953, but Leonard Lord had just signed an agreement with Donald Healey to build the new Austin-Healey 100 sports car and didn't want the in-house competition. That's why the essentially pre-war T-Type had to soldier on for two extra years, from 1953-1955, as the TF. And much as we all love it today, can you

imagine how the poor old TF struggled for sales against cars like the brand new TR2?

Still, the MGA 1500 when it arrived in 1955 soon made up for lost time, selling as quickly as MG could build them. At launch, the 1489cc engine from the Z-Type Magnette was carried over to the new sports car and endowed the graceful and slippery MGA with a top speed of 95.1mph. That was raised

to breach the magic ton when the engine was enlarged to 1588cc to create the MGA 1600 in 1959, with the addition of disc brakes to this model helping slow things back down again. However, there had already been a couple of additional models in the meantime – a closed Coupé from 1956 with far more civilised interior fittings than the Roadsters, and the potent-but-flawed Twin Cam from 1958. The Coupé was inevitably heavier than the Roadster and so slower off the mark, but it was also more aerodynamic and was clocked at speeds of up to 100mph by Autosport. As for the Twin Cam, this offered 108bhp, a 113mph top speed and a sub-10 second sprint from 0-60mph, but only when it was working! Sadly this DOHC development of the B-series engine proved troublesome in service, and only 2111 were built before MG pulled the plug. As is so often the case though, a car which proved so troublesome when new is now the darling of the classic car fraternity and prices have rocketed skywards. Fortunately for Triumph, really and truly they fall outside the scope of this comparison. Besides, as we said at the outset, our default position for price comparisons is to select the highest spec car available from the first year of production, and Twin Cams were only built from 1958 to 1960. Not that regular OHV MGAs have been slow in





coming forwards, and cars that only a few years ago could have been found for £15,000 are now more likely to be knocking on the door of £30,000.

What that buys you in standard trim is a decent performer in its own right, one that perfectly embodies the MG slogan of Safety Fast. An MGA 1500 in period would sprint from 0-60mph in just 15 seconds for example, and it flattered the novice driver with a controlled and predictable breakaway if you did take too much speed into a corner, all in a manner that invited easy correction. Competition success for the Works team probably encouraged such rowdy behaviour, but the MGA also has a delicate curve to its flanks that means you don't have to be pushing on to enjoy being behind that big wheel. These days you can have almost as much fun just running your hands along those curves and polishing the paint. Almost as much...

The TR3 in contrast is a little bit more of a brute, though I mean that in the nicest possible way. There are still those exquisite 1950s curves with a wing line that rises over the front wheel before dropping away dramatically through the door to make a natural place to park your elbow when cruising, or to make room for it when spinning the wheel with vigour.

It is a similar aesthetic to the MGA, only more so and slightly slab sided, if you see what I mean. To my mind there is a little more ruggedness to the Triumph and a little more visual delicacy to the MG, though both of them proved their worth on the toughest rallies back in the day, so this must be a styling trick rather than an inherent characteristic.

There is no denying though that the TR3 has more grunt from that wet-liner four-pot. So whereas a 1956 MGA 1500 had 77lb.ft of torque to get the show on the road, a TR3 of the same vintage enjoyed 117.5lb.ft from its 1991cc. Absolute performance figures are not vastly different to those of the MGA, but still an improvement with a 0-60mph dash in 12 seconds instead of 15 and a top speed →





of 104.57mph compared to 95.1mph. Mind you, the later MGA MkII from 1961-62 had an engine enlarged to 1622cc, and one of those could boast figures that were closer to the TR3 at 90bhp, 100lb.ft, 0-60mph in 13.7 seconds and 102.3mph.

'Hang on,' I hear you cry, 'what's all this about 1991cc? We thought the wet-liner four was 2088cc.' Well yes that's right, but Triumph had no recent sporting pedigree in 1953 to support their new TR and they were very keen to get cars out and about in competition to prove their performance and their reliability, so new liners and pistons were added to the engine to bring capacity down to 1991cc and make it fit in the 2-litre racing class of the day. It worked too, and privateer as well as later Works success did the new model a power of good in showrooms up and down the country.

However, it could all have gone so very badly wrong, and Triumph might never have gone on to build the TR3 or TR4, let alone TRs 5, 6, 7 and 8. When work started

on a new Triumph sports car in 1951, the aim was to produce something that slotted between the MG TD and the Jaguar XK120. The first attempt was the 20TS, a simple but competent design that featured predominantly single skin panels without complex curves in a bid to keep the cost down. The rear end styling was a little more doubtful with an exposed upright spare wheel, but that could have been worked on. The real problem was that underneath this body sat a leftover pre-war Standard Flying Nine chassis, modified to take the Mayflower's IFS but dynamically a disaster.

Fortunately test driver Ken Richardson pointed this out in no uncertain terms to the ST management following a test drive soon after the prototype had been exhibited at Earls Court in 1952. Sir John Black and his minions could easily have ignored Richardson's advice as they were not used to being called out in this way, but instead they took it on board, went back to the drawing board, and even employed Richardson

to help. The tail was duly tidied up, the chassis re-designed and the resulting TR2 appeared in 1953 as a much improved car. It was not an instant success, but it started off solidly and sales grew steadily at first. They tailed off in 1954, but the Triumph designers responded to the challenge and in the autumn of 1955 the TR3 took over and revived sales. The TR3 had an egg-crate grille to close off the smallmouth radiator opening which had been deeply recessed on the TR2. From 1956 it also had disc brakes on the front, something that the OHV MGAs would have to wait for until the MGA 1600 arrived in 1959.

The new TR3 really hit the market's sweet spot and sales soared ever upwards. The TR3A followed, with a full-width grille that was designed with the US market in mind – the so-called 'dollar grin.' That was meant as a derogatory term, but we think it is better looking than the earlier cars. (It is a TR3A that is pictured on these pages.) The TR3A lasted until the TR4 took over in 1961, but



in 1962 there was a short-lived TR3B for the American market, whose dealers feared the TR4 would be too complex and too expensive for their customers. They were wrong, and the sidescreen TRs finally bowed out in 1962, the final batch of TR3Bs getting the bigger 2138cc engine of the TR4.

THE VERDICT

Comparing these cars is difficult. Rivals certainly, they were and remain, very different sports cars. Both are great to drive, a fact reflected in the motorsporting successes they both achieved. Today, with strong club support and ample parts availability they are sensible British sports car options to own and enjoy. In the end, however, it just has to come down to the looks. True, the TR tough look appeals, but that cannot really match the sophistication and smooth lines of the MGA and for this writer, those lines win this comparison every time; and if you can find a well-looked after Twin Cam version, that trumps the TR3 every time. ■

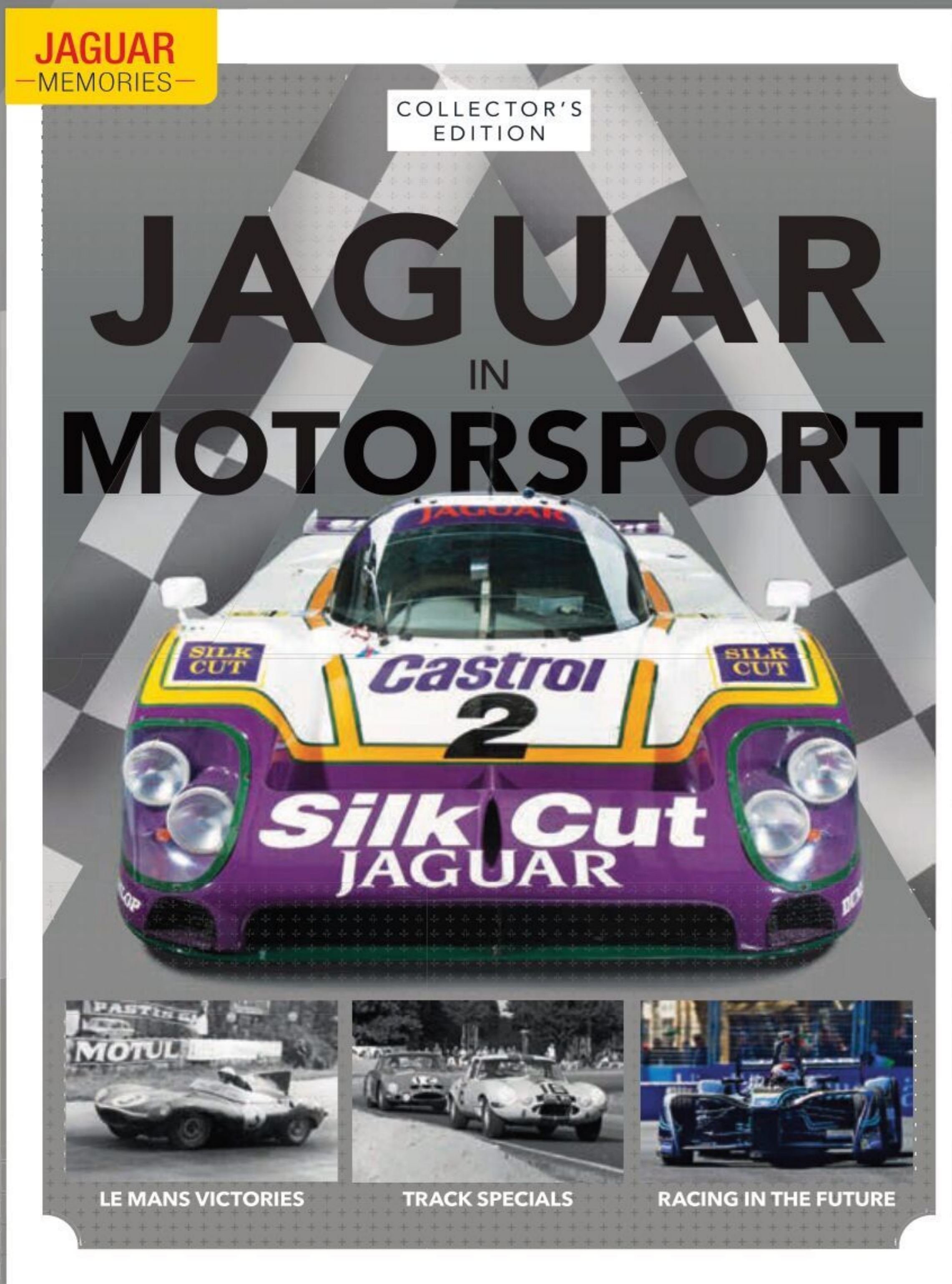


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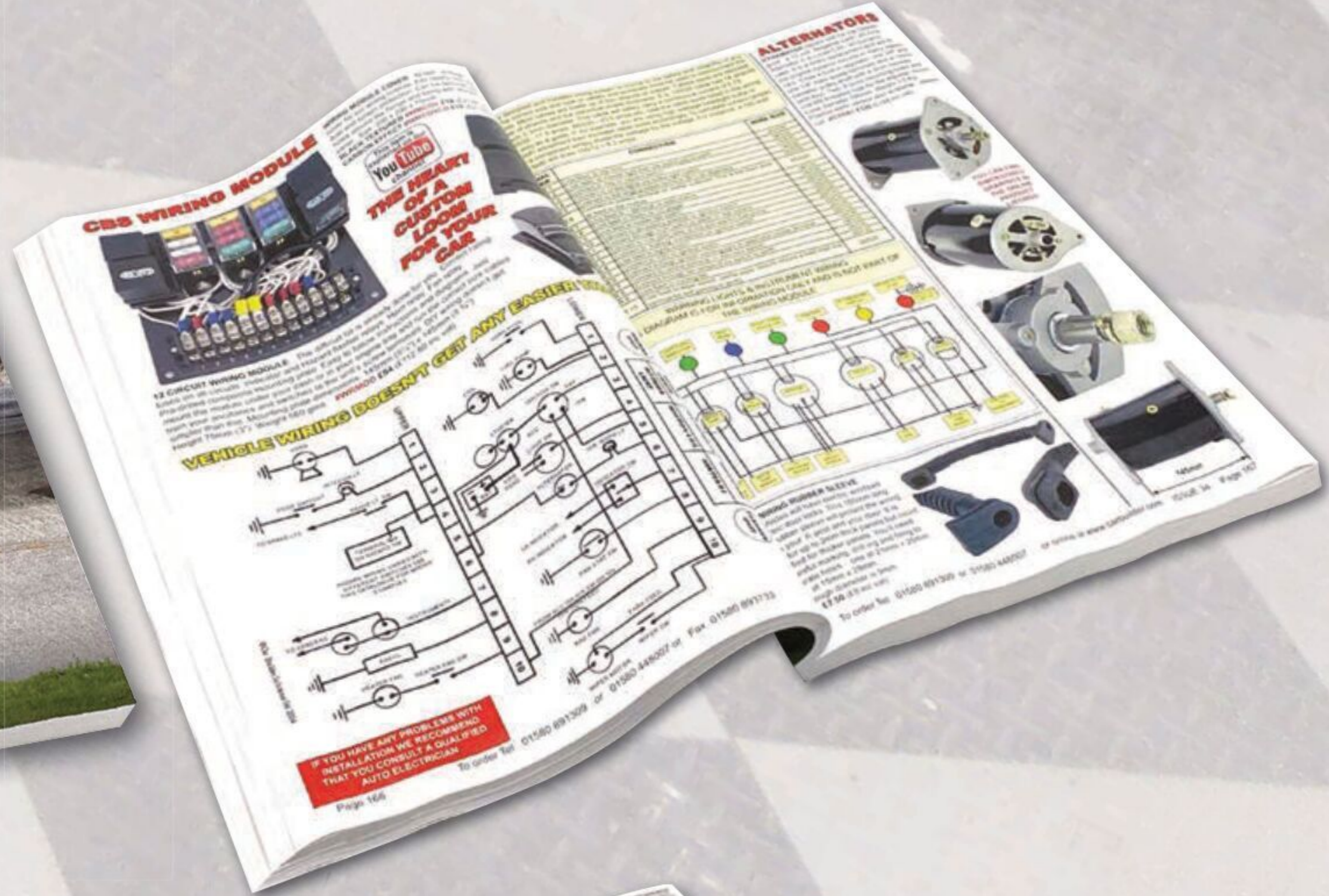
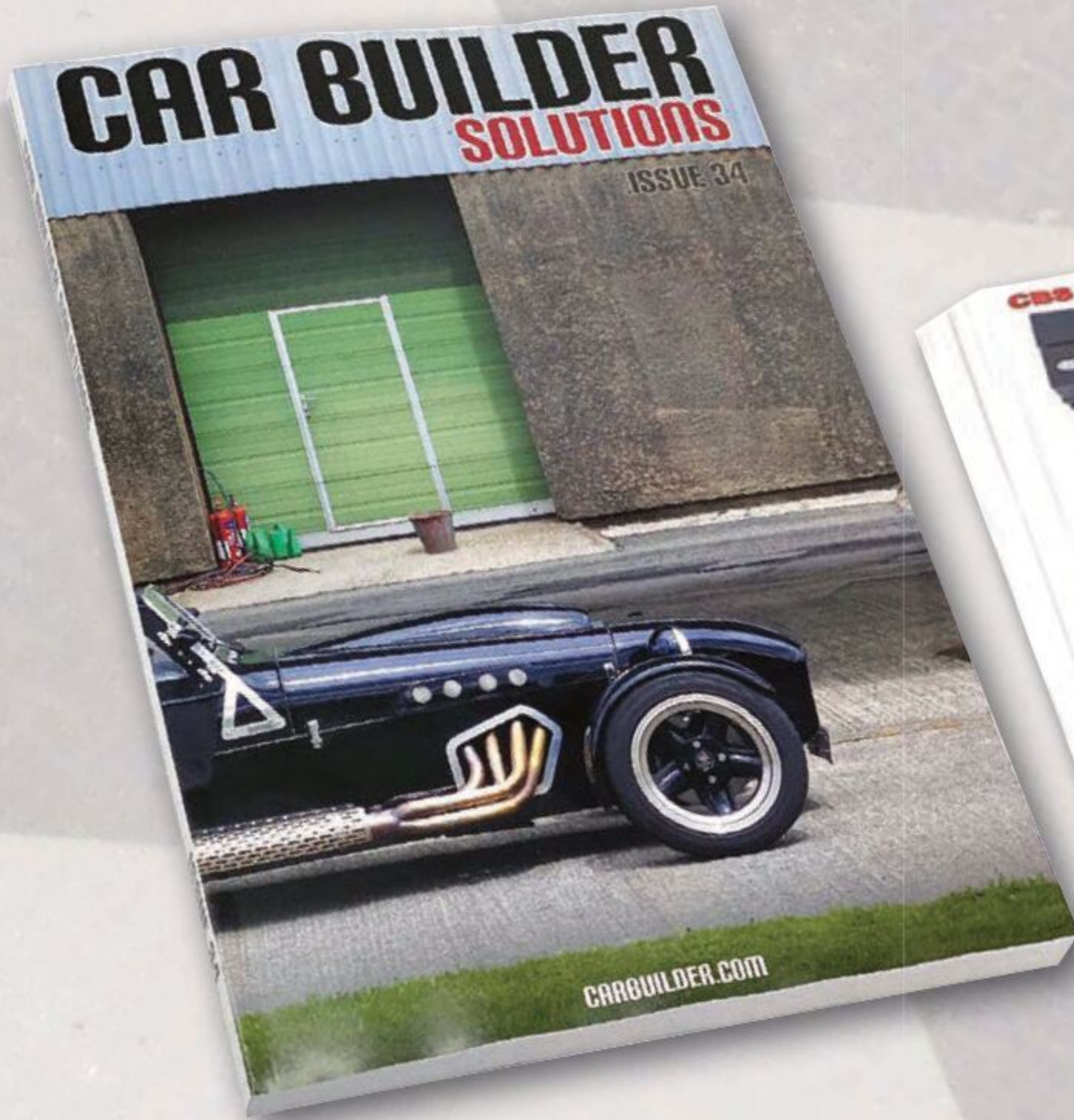
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10 THINGS YOU NEED TO KNOW ABOUT THE TRIUMPH TR2-3B

The Triumph marque is so famous for its sports cars, that it is easy to forget that the TR2 of 1953 was something of a trailblazer for the company, and that it could all have gone so wrong. Report: Simon Goldsworthy



The Standard Motor Company, which had bought the defunct Triumph marque in 1944, was in robust shape going into the 1950s with Vanguard sales strong and growing production of the Ferguson tractor underpinning the company's finances. But Sir John Black, the company's autocratic chairman, was not happy. He had watched Jaguar claim the upmarket sports car slot as their own, and relative minnows such as MG and Morgan carve out their own sports car niches lower down the financial pecking order.

Standard-Triumph lacked a sports car offering though, and for all the company's



impressive resources, its own tentative forays in this direction in the immediate post-war period had been half-hearted and unsuccessful. The Triumph Roadster of 1946 had been a boulevard cruiser rather than a sports car. The TRX Roadster proposal of 1949/50 had been similarly lacking in zest – it was too bulbous, too slow and too complex for its own good too, so it was a commercial relief that only three prototypes were ever built before ST went back to the drawing board.

Sir John's next plan was to buy his way into the sports car club. MG were out of reach in the Nuffield empire, so in 1950 he proposed a takeover of Morgan, only to be politely but firmly rebuffed by H.S.F. Morgan and his son Peter, who preferred their independence. That only increased Sir John's determination to teach the opposition a lesson and design a two-seater of his own that would fill the gap between MG's cheap-and-cheerful TD and Jaguar's sleek and upmarket XK120.

Every expense was spared on the development of this though, resulting in

simple styling for the body without compound curves and running gear that was lifted from elsewhere in the ST stable, primarily the Standard Vanguard but also the Triumph Mayflower. ST cut costs a little too far when they discovered several hundred pre-war Standard Flying Nine chassis in the spares department and chopped one around to form the basis of the new car – not much of the original chassis remained anyway after it had been converted from leaf springs and a beam axle to accept the IFS from the Mayflower, and it was about as rigid as a mattress.

The result was the 20TS (2.0-litre Triumph Sports), built in a hurry over the summer of 1952 and shown at that October's Earls Court Motor Show to test the waters for a new Triumph Roadster. The reaction of the press and public was a little lukewarm, but the project did appear to have legs – until that prototype was tested and found to handle like a sack of spuds. Fortunately, rather than pour good money after bad, Triumph went back to the drawing board and redesigned the chassis

to increase stiffness dramatically. The body was also tidied up, particularly at the back end where the new chassis allowed for a longer tail and proper opening boot instead of the 20TS's stubby rear and exposed spare wheel.

The resulting TR2 was unveiled at the Geneva Motor Show in March 1953. Production was slow to get up and running though, so sales did not really take off until the start of 1954. They tailed off again by the end of the year, but the sales trajectory was pointed firmly skywards with the TR3 of 1955, not a radically different car but with an egg-box grille over the air intake, more power (95bhp) and plenty of other little tweaks.

Power was increased still further in the summer of 1956 thanks to what was known as the High Port cylinder head, now reaching the heady heights of 100bhp. For 1957 the TR3 gained front disc brakes, which was a first for a British series-production car. The facelifted TR3A with its full-width grille then appeared in the autumn of that year, and lasted through to the end of 1961. This gave way to the TR4, an all-new body style on a lightly tweaked mechanical package, but lived on through 1962 as the TR3B. The TR4 had the luxury of wind-up windows, which is why the TR2 and TR3 cars are now referred to as the sidescreen TRs. →



1 It indicative of how short-sighted the initial plan to use leftover Standard Flying Nine chassis had been when you consider a few numbers. Sir John had mooted potential production of ten cars a week, at which rate the stash of chassis would have lasted nearly two years. That production plan was soon revised upwards for the TR2 though, and by the spring of 1954 ST were turning out 100 cars a week. At that rate, the compromised chassis stocks would have lasted barely two months, but the woeful handling would have remained indefinitely.

2 Just how woeful would the handling have been? The 20TS prototype was slammed as 'a bloody death trap!' by test driver Ken Richardson after a brief trip around the factory grounds. Fortunately, instead of stomping off in a rage as everybody

expected, Sir John accepted Richardson's verdict and hired him to help develop the car into a potential world-beater. There never was a TR1 and certainly Triumph never referred to any previous car in that way, but it is reasonable to assume that the TR line started with the TR2 name to emphasise the fact that it had evolved from either the earlier TRX or the 20TS.

3 To drum up publicity for the new Triumph, in May 1953 Ken Richardson was sent across the Channel to the Jabbeke highway in Belgium with an early LHD prototype, where he recorded a best speed of 124.889mph. This was without bumpers or a windscreen fitted, but with an aeroscreen, different gearing and overdrive, plus a metal tonneau, rear wheel spats and full-length undertray to help with aerodynamics. In the afternoon, he recorded 114.89mph with the

windscreen, hood and sidescreens fitted. These were extremely impressive figures for a 2-litre car of this price bracket and the TR legend had begun.

4 The first TR2s are known as long-door cars, not because of the opening length but because of the doors' height. Initially the doors extended down to the bottom of the car, but this created problems when the low-slung sports car was parked next to a high kerb and occupants found they were unable to get out. Shorter doors that finished above a new sill panel were introduced in October 1954.

5 The budget nature of the TR2 was betrayed by the fact that the bootlid was designed to be secured with simple latches at either end, operated by a T-bar 'key.' However, Triumph then decided to fit a proper keyed lock in the centre, which



left owners with no fewer than three ways of securing their luggage! The two budget locks were only deleted when a lockable handle arrived during the TR3A's production run

6 The original jack was designed to operate through a hole in the footwell that was normally covered by a rubber grommet. This meant you could in theory jack your car up in the rain without getting wet, though what you would do with it then if you were worried about getting splashed is open to conjecture. You'd surely have had to get out to retrieve the jack from the boot too, and the design was poor anyway as the car was none to stable in this position.

7 The TR2 was fitted with the four-cylinder engine from the Standard Vanguard, but with the capacity reduced from 2088cc to 1991cc so that it was eligible for the 2-litre class in international competition. This capacity reduction was simple, because the engine was a wet-liner design and simply needed narrower bore liners and pistons to be fitted. Triumph got lucky when they fitted a large cooling fan directly to the crankshaft (via an extension piece) in order to squeeze everything in, as this proved to be an excellent dampener for engine vibration. →





summer of 1961, but US dealers persuaded the factory to keep the sidescreen model in production in case the new design proved too radical or too expensive for their clientele. This late-model sidescreen car was never actually referred to as the TR3B by Triumph, but it is universally called that by enthusiasts today.

8 In 1959, Triumph took three TR3S competition cars to Le Mans. These looked reasonably standard, but had mostly fibreglass bodies over lengthened chassis to provide more room for physically bigger experimental twin-cam engines. This engine was nicknamed the Sabrina because of the way two protruding timing gear covers at the front resembled a particularly busty lady of that name who was popular on TV at the time. It was not a successful outing, as top management insisted the cars be fitted with fan blades, even though any racer knew they were not necessary at speed. The blades

duly fractured on two cars, punctured the radiators and caused the engines to overheat. The fan was then removed on the third car, only for the oil pump drive to fail after 22 hours.

9 There were also two different TR3Bs – or maybe none at all! The first was an official Triumph proposal that saw a tweaked TR3A body being placed over the proposed TR4 running gear when the company feared it might run out of money before putting the all-new styling into production. The new TR4 body did in fact go into production in the

10 There were also two related products that took the TR dramatically upmarket. One was the Swallow Doretti of 1954/55, built by the Swallow Coachbuilding Company and featuring a body designed by F.G. Rainbow with a Ferrari flavour – the Doretti name was derived from Triumph's Southern California distributor Dorothy Dean, but given an Italian twist. The other was the real Italian deal, wearing a stylish body designed by Michelotti and built by Vignale. Only 329 of these classy Triumph Italias were built from 1965-63, and none were officially sold in the UK. ■



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PRINTED IN THE UK ISSUE 6 £8.99

ISBN 978-1-914551-36-9



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