



# Triumph TR4, TR4A & TR5 1961-1968

You'd be pushed to find a more traditional British roadster, but there are major pitfalls to catch out the unwary when buying one of these Triumphs

**PRICE CHECK** CONDITION 1: £10,000-15,000 CONDITION 2: £6000-9000 CONDITION 3: £3000-5000

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**W**HEN Michelotti's sharp-suited new TR4 was unveiled on the Triumph stand at the London motor show in 1961, the car looked thoroughly modern, especially when compared with the TR3A that it replaced. But the reality was that under the surface the car was still a TR3A – it was little more than the outer skin that was new.

Despite this, the TR4, and TR4A which succeeded it, were among the fastest affordable sports cars on offer during the Sixties. Cheap to buy and run, the cars' road manners may have left room for improvement, but as stylish transport they were virtually unbeatable.

Apart from the completely new look, the TR4 gained rack and pinion steering, wider front and rear tracks to make it more sure-footed and an all-synchromesh gearbox. And although the engine used in the TR4 was essentially the same as that fitted to the TR3, it was bored out to 2138cc to up the performance a bit. The full-width styling that the TR4 offered also meant a novel roof arrangement could be specified. The lift-out top panel meant wind in the hair motoring could be enjoyed while the occupants were protected from too much wind by the rear window. Unfortunately the panel was too bulky to fit into the car's boot so Triumph also offered a light framework and canvas assembly, called the Surrey top, which was more easily stowed.

If you like your cars rare, the derivative for you is the Dove GTR4, built by Wimbledon-based LF Dove. It featured a fixed roof with a hatchback, GT6 style. But because the cars were built by hand on a bespoke basis they were expensive (at £1250 they cost nearly a third more than the standard car) and unsuccessful with probably no more than 50 made.

Between 1961 and 1965, 40,253 examples of the TR4 had been built, but there had been little in the way of development. So when the most significant change was made in 1965, the car became known as the TR4A to mark the occasion. The chassis was tweaked comprehensively with a new design for the rear of the frame itself and independent rear suspension courtesy of coil springs with semi-trailing wishbones. This gave a more comfortable ride while increasing the amount of grip available. But the added sophistication meant the car cost more to produce, and hence to buy. As a result, for the all-important North American market, the original live-axled configuration was still available.

Having created an all-new body and sorted the antiquated chassis since the TR3's demise in 1961, the only thing the car was crying out for was a better engine – the four-cylinder powerplant was starting to age by the mid-Sixties. The answer was to put the thoroughly modern 2.5-litre straight-six under the bonnet, which happened in October 1967 with the arrival of the TR5. Complete with fuel-injection, the car was very similar to the TR4A, of which 28,463 copies had been produced, but the new engine turned the TR into a genuine performance car with a handy 150bhp on tap. Because of strict emissions regulations in North America the car was fitted with twin carburettors instead of fuel-

injection, and cars for this market were badged TR250 instead of TR5. But even by the time the TR5 was introduced, it was looking pretty long in the tooth. Something more than a freshen up was needed, and the TR5 was never meant to be anything more than an interim model until Karmann had finished its work on a replacement – the TR6. That car arrived in January 1969 after 2957 TR5s and 8484 TR250s had been built.

## BODYWORK

THE TR4 has a separate chassis, which can rot in all sorts of places and can only really be repaired properly if the bodyshell is removed first. But the construction of the TR4A and TR5 mean many chassis repairs can be undertaken with the body in situ. Later cars also have differential mounting brackets that are more prone to problems than those on the earlier TR4. The TR5 is the worst affected of them all, because the amount of torque put through the diff can cause the mountings to break off altogether, so pay close attention to what state the offside front and nearside rear ones are in, as these are most affected by the torque going through the diff. The centre section of the chassis also needs careful analysis as it bulges as it gets weaker. TR4s survive best because the chassis is less complex – the TR4A and TR5 have internal strengthening where the rear suspension is bolted to the chassis, and this area corrodes quite readily. Also, because of the very different shape that the TR4A and TR5 have from the TR4, these later cars suffer from chassis flexing that can crack the chassis.

As well as rot problems, poorly repaired accident damage is another probability. The chassis isn't especially hardy, so even small parking nudges can cause distortion. The areas most commonly afflicted are the front suspension turrets, the mounting brackets (the points from which the wishbones pivot), outriggers, steering rack mountings and the suspension itself. Distorted metal (particularly kinks where the chassis gets wider on either side of the sump), cracks, naff plating and uneven tyre wear will all give the game away.

Despite the use of a separate chassis, the bodyshell does give some structural strength, especially on the TR4A and TR5 which have a more flexible chassis. Because of this it's

## OUR EXPERTS

JERRY Humphreys and Mark Pattinson have run Enginuity for 17 years, offering a complete service for TR owners. Between them they've run almost every type of TR.



## SPOT THE GROT



The front edge of the bonnet rots, and good replacements are tricky to find.



Rear wing and deck can look fine, but a close inspection may show they're rotten.



Trailing edge of the bootlid has a tendency to rot away allowing boot to fill with water.



The whole chassis needs to be carefully inspected for any signs of corrosion...



...as well as accident damage. Even small nudges can cause distortion in the metal.

## BUYERS GUIDE TRIUMPH TR4, TR4A & TR5

1961-1968



### TR4

◆ 1961-1964: TR4. Italian designer Michelotti redesigned the TR3 with wind-up windows, all synchro gearbox and more luggage space. 2138cc engine with SU carbs then Strombergs from 1962. Optional Surrey hardtop roof.



### TR4A

◆ 1964-1967: TR4A got the Triumph 2000 saloon's independent rear suspension comprising a coil and semi trailing arms adding 100lb. Also new grille, side lights on front wing and revised trim.



### DOVE

◆ 1961-1964: Dove GTR4. Coupé conversion by Harrington for dealer Doves of Wimbledon. Tiny rear seat, bigger 15-gallon fuel tank, apparently no TR4As converted.



### TR5

◆ 1967: TR5. 2000 saloon donated its six-cylinder engine which was increased to 2498cc and equipped with Lucas fuel-injection and a 9.5:1 compression ratio producing 150bhp. Servo brakes and radial tyres.



### TR250

◆ Twin Stromberged version for the USA was badged as a TR250 (105bhp). Replaced by TR6 in 1969; 8484 built.



especially important to make sure the main shell is sound and that the doors, wings, sills and floorpans are in reasonable condition. Make sure the drain holes which should be obvious on the underside of the sill are all present and correct – if they're blocked up the sills will probably be well on the way to rotting through from the inside. The tops and bottoms of both the doors and wings can rot away, and where the front wings are concerned, inspect the inner as well as the outer wing carefully. The battery sits behind the engine and the metal beneath it rots readily, so if it doesn't look too great remove the battery and inspect more closely.

Also check the door gaps as a peculiarity of this chassis design is that they can open up at the top if the chassis has been weakened by corrosion or if the car hasn't been properly braced when the sills have been replaced. The B-posts and door tops can also succumb to the tin worm as can the lip of the bootlid so ignore these and you might regret it. But if the panel gaps are excessive or hideously uneven it could be because the car has been restored very badly. If this is the case, it'll be a

lot more hassle putting that right than starting with an unrestored example.

Another sign of a bodged rebuild is missing beading along the seam between the top of the rear wings and the deck. The rear wings bolt on and filler is often used along the tops of them while the beading is left out. Make sure the footwells are in good shape too, as it's a common bodge to weld replacement panels over already rusty ones – it might look OK but the corrosion will still be there and the car may be weakened structurally as a result.

### ENGINES

THE 2138cc four-cylinder unit used in the TR4 is simple, strong and reliable. Derived from the post-war Standard Vanguard unit, it'll happily put 100,000 miles underneath the wheels before it wants any significant attention, although oil leaks from the timing chain cover are a common trait. The scroll seal fitted at the rear of the crankshaft also lets oil out, but this is only really a problem when the car's engine is running but the vehicle itself isn't moving. Once the engine is up to running temperature you should see 70psi on the clock.



Four-cylinder 2138cc engine is torquey but not as sweet as TR5's six-cylinder 2498cc unit.



The six-cylinder engine fitted to the TR5 is a long-stroke unit that offers plenty of torque but isn't as free-revving as the four-cylinder units. Unfortunately it's also more troublesome because it suffers from the same problems as all the cars to which it was fitted, especially problems with the crankshaft end float. Check for play in the crankshaft thrust washers by pushing and pulling on the bottom pulley or by depressing and releasing the clutch – there should be no more than 0.015in movement. You may also feel and hear a clonk as the crank moves – any detectable movement means the thrust washers have dropped out in which case the engine will probably be fit for scrap only and you'll have to find another.

The TR5 also suffers from fuel-injection maladies. It's not that the Lucas mechanical system is that unreliable – it should go for 20,000 miles without attention if it's set up properly. But it rarely is set up properly because many people think they know how to set it up, but don't. If the car has been allowed to run out of fuel the dregs from the bottom of the tank will have got sucked into the injectors leading to poor running.

## TRANSMISSION

THE four-speed gearbox fitted to the TR4 and TR4A rarely gives problems, as they're just as tough as the engines. But once 100,000 miles have been racked up the bearings will start to grumble and it'll start to jump out of gear. The only option is to fit a rebuilt gearbox, for which you can expect to pay £350 plus your old one. Overdrive was fitted as an option to give a seven-speed gearbox and this gives few problems except for either the solenoid or the wiring loom playing up.

If the clutch isn't set up properly on any of the cars there'll be problems. Make sure the clevis pin which connects the clutch pedal to the master cylinder isn't excessively worn and that the slave cylinder is mounted with the bleed nipple facing upwards – the cylinder can be fitted upside-down very easily. Getting it wrong will prevent you bleeding the hydraulics properly and the baulk rings in the gearbox will take a battering through the clutch not giving the necessary clearance.

The TR5 was fitted with a modified gearbox from its predecessors. But it was still a four-speed manual with optional overdrive on the



Typical British Sixties roadster has wooden dash, bucket seats and parts-bin switchgear.

## SPOT THE GROT



Remove battery if area around looks tatty – the metal tray below may well be rotten.



Diff mountings can be torn off if the car's been driven hard. TR5 is worst affected.



Fuel-injection will be reliable if it has been set up properly, but frequently it hasn't.



Sealing the engine is tricky. Check rocker and timing chain covers for signs of leaks.



Unlubricated trunnions seize – this upsets handling and wears suspension prematurely.

## PRACTICAL CLASSIC?

### WHAT ARE THEY LIKE TO DRIVE?

There's quite a difference between the TR4 and the TR4A, with the earlier cars having quite a harsh ride due to a lack of suspension travel. The TR4A has a softer ride but there's more roll on the corners. The four-cylinder engines are torquey but the TR5 is the most desirable car – its smooth six-pot offers a useful increase in performance with all the torque you need.

**WILL I FIT BEHIND THE WHEEL?** The TR4 and TR5 are quintessential British sports cars with no attempt at providing rear seats, which means there's plenty of room for fore and aft seat adjustment. But the steering wheel isn't small so if you're on the portly side you might find it a bit cramped.

### WHAT BODGES SHOULD I LOOK FOR?

- ◆ Cover panels in footwells
- ◆ Poor panel gaps through poor bracing during sill replacement
- ◆ Beading missing from rear wing tops
- ◆ Filler in chassis

**WHAT SHOULD I PAY?** TR5s are more sought after than TR4As which in turn are more sought after than TR4s. The TR5 is by far the rarest and restoration projects are very hard to find. Even tatty runners aren't easy to source so expect to pay £6000 upwards for something that needs work. The best TR5 fetches around £15,000 while the best TR4 gets £10,000 – top TR4As are worth around £1000 more. TR4 and TR4A restoration projects typically command £3000. Somewhere in between all these values lie the average cars that are typical classifieds fodder.

### WHAT WILL INSURANCE COST ME?

Comprehensive cover for a £7000 1964 Triumph TR4 in Peterborough:

- ◆ £659 for 25yo, two years' NCB, clean licence, 10,000 miles, only car, kept on driveway, club member.
- ◆ £88.08 for 42yo, full NCB, clean licence, 3000 miles, second car, garaged, club member.

Quotes from Firebond (08704 440 556)

### WHO ARE THE SPECIALISTS?

- ◆ TD Fitchett, Shrops (01952 619585)
- ◆ Revington TR, Somerset (01823 698 437, [www.revingtontr.com](http://www.revingtontr.com))
- ◆ Enginuity, London (020 8993 7737, [www.enginuity.co.uk](http://www.enginuity.co.uk))
- ◆ Rimmers, Lincoln (01522 568 000, [www.rimmerbros.co.uk](http://www.rimmerbros.co.uk))
- ◆ TR Bitz, Cheshire (01925 861 861)
- ◆ TR Enterprises, Notts (01623 793 807, [www.trenterprises.com](http://www.trenterprises.com))
- ◆ TR Shop, London (020 8995 6621)
- ◆ TRGB, Cambs (0870 757 2441, [www.trgb.co.uk](http://www.trgb.co.uk))

### WHAT ABOUT SPARES PRICES?

- ◆ TR4 trunnion: £44
- ◆ TR4 big end bearings: £38
- ◆ Rear wheel cylinder: £22
- ◆ TR5 engine mount: £13
- ◆ TR5 water pump: £44

### STEEP

- ◆ Chassis: £1900

- ◆ Alloy radiator: £522
- ◆ Fuel tank: £464
- ◆ TR5 diff: £346
- ◆ Front wing: £358

### ARE ANY PARTS HARD TO GET?

- ◆ Surrey tops
- ◆ Decent new wings
- ◆ Bonnets – even second hand
- ◆ TR5 crankshafts

### CAN THEY COPE WITH UNLEADED?

Neither the four or the six-cylinder engines can run on unleaded without modification, the best route being a cylinder head conversion. Expect to pay around £285 for a four-cylinder unit while a TR5 powerplant is about £100 more. If you do convert to unleaded you'll also need a metering unit that can cope with the fuel, for which you'll pay £177. These are fitted with rubber seals which can cope with the higher benzene levels of unleaded fuel.

### WHERE ARE THE IDENTIFYING MARKS?

Because TR5s are worth more than TR4s and TR4As, it's not unknown for a six-pot engine to be dropped into a TR4 and passed off as a TR5. A TR5 chassis number will start CP, while CT means it's a TR4. CTC is a

top three gears so in use it isn't any different.

Check for wear in the propshaft and driveshaft universal joints by using a wrench to turn the shafts while the brakes are on. Any play will be instantly noticeable and if the propshaft is worn out you'll have to pay around £150 or so to replace it. Also check for wear in the driveshaft splines which cost around £165 each side to fix – if you're replacing these it's worth investing in a set of converted Jaguar units. These are available from Neil Revington and are both better made and longer lasting. Propshafts need to be greased every 3000 miles if they're not to seize and they can also go out of balance when the universal joints are replaced, so make sure they're reassembled in the same way that they came apart.

## STEERING & SUSPENSION

NEITHER the front or rear suspension have any inherent problems, although the rear of the TR4A can be improved by fitting telescopic shock absorbers. Uprated springs are available for the TR4, and these should be fitted without the aluminium spacer that normally lives between the top of the spring and the top spring mounting. But many owners who fit the kits themselves don't read the

instructions and end up with the whole lot being fitted, which then raises the ride height and upsets the car's handling. You



TR4A

and if it's a TR250 it'll start with CD.

All these cars have a commission plate located on the nearside front inner wheelarch.

### WHICH OWNERS' CLUB SHOULD I JOIN?

- ◆ Club Triumph: £25pa + £5 joining fee. 1200 members. Bi-monthly magazine Club Torque, bi-monthly newsletter Secretary's Notes. National and regional meetings, spares scheme, valuations, technical help, insurance and recovery schemes, library.
- ◆ TR Drivers' Club: £25pa. Bi-monthly A5 colour magazine TR Driver. Regional and national events, regalia, parts.
- ◆ TR Register: A4 colour glossy magazine TR Action produced eight times a year. Technical help, regalia, local and national meets, insurance, some motorsport events.

### WHICH IS THE BEST BOOK?

- ◆ Original Triumph TR4/TR4A/TR5 by Bill Piggott. Bay View, ISBN: 1-901432-04-1

should be able to get just two fingers between the top of the tyre and the rear wheelarch – any more and it's sitting too high, probably because it's got the wrong springs fitted.

The front trunnions have a habit of seizing because they haven't been lubricated properly when being fitted. This will strain other parts of the suspension, especially the drop link on the wishbone, so check their condition by jacking up the car from underneath the wishbone and making sure the trunnions are swivelling properly.

Neither the front nor the rear wheelbearings are particularly hardy so check for play in all four corners. Although play can be adjusted out, count on having to replace them if there's any movement.

## WHEELS & BRAKES

TR4s SUFFER from the symptom that afflicts many classic British roadsters – that of duff wire wheels. As well as the spokes rusting or breaking there's a good chance that the splines which locate the wheel are worn, due to a lack of frequent greasing. Wire wheels weren't fitted as standard to either of the cars – pressed steel units were the factory spec – but many cars have had the conversion done. Other popular swaps are TR6 or Minilite-style items, which don't normally give problems.

Servo assistance was always an option on the TR4 and TR4A, but standard on the TR5, so don't expect to see one fitted to the earlier cars. Whether or not there's one fitted, the brakes should be up to the job, but the handbrake is notoriously poor.

## TRIM

UNLESS the interior is absolutely wrecked, a bit of scruffiness inside isn't anything to worry about – everything is available.

The Surrey hardtops were always an option, and are now sought after – if the car you're looking at

## SPECIFICATIONS

	TR4 1961-1965	TR4A 1965-1967	TR5 1967-1968
ENGINE	2138cc/4-cyl	2138cc/4-cyl	2498cc/6-cyl
POWER	100bhp@4600rpm	104bhp@4700rpm	150bhp@5500rpm
TORQUE	127lb ft@3350rpm	132lb ft@3000rpm	164lb ft@3500rpm
TOP SPEED	102mph	109mph	120mph
0-60MPH	10.9sec	11.4sec	8.8sec
CONSUMPTION	23mpg	25mpg	20mpg
GEARBOX	4-spd man + opt o/d	4-spd man + opt o/d	4-spd man + opt o/d
LENGTH	12ft 9in (3.88m)	12ft 9in (3.88m)	12ft 9in (3.88m)
WIDTH	4ft 10in (1.47m)	4ft 10in (1.47m)	4ft 10in (1.47m)
WEIGHT	2184lb (993kg)	2358lb (1072kg)	2319lb (1054kg)

doesn't have one but you'd like one, expect to pay at least £400 for a decent example.

## ELECTRICS

BRITISH car from the Sixties equals straightforward electrics that give few problems and can be fixed easily when things do start to go wrong. Replacement parts are cheap and apart from connections not connecting properly, there's little to worry about. A new wiring loom is available for about £200 and it's not too tricky to fit – a specialist will charge £400-£500 to replace it for you.

The only exception to this is if the windscreen wipers are playing up. If it's the motor that's after some TLC you'll be OK, but if it's the rack that's unhappy you'll have to remove the dash to get to it.

If the heater unit is completely ineffective it's probably because the air vent at the base of the windscreen isn't open. Just raising the flap by a few degrees makes all the difference between a misted up windscreen and a clear one.

## CONCLUSION

TRIUMPH roadsters will never go out of fashion. Buy a good example of any TR, look after it, drive it sympathetically, and you'll be able to sell it on without losing your shirt. If you want to buy a car to treat as a project there are plenty of earlier cars on offer along with a decent supply of parts, so you won't grind to a halt due to missing a crucial component. In either case, get ready to listen to everybody you meet while out in your TR, because they'll all want to relate at least one anecdote to you about their friend, relative or neighbour who 'used to have one of those.'

## THANKS TO

DEREK Pollock of Club Triumph, Jerry Humphreys and Mark Pattinson of *Enginuity*, and Ian Boyd-Brown for the TR4 pictured.

## HOTLINKS

■ [www.vtr.org/TR4](http://www.vtr.org/TR4) ■ [www.vtr.org/TR5](http://www.vtr.org/TR5)

'Buy a good example,  
look after it and you'll sell  
it on without losing your shirt'

## SPOT THE GROT



All four wheelbearings are prone to wear as they're under-engineered. Check for play.



If the car's steering is vague or there's play, check doughnut above the bulkhead.



Electrical system is straightforward, gives few problems and is easy to work on.



Even the tattiest interior can be revived – all trim items are easy to get hold of.