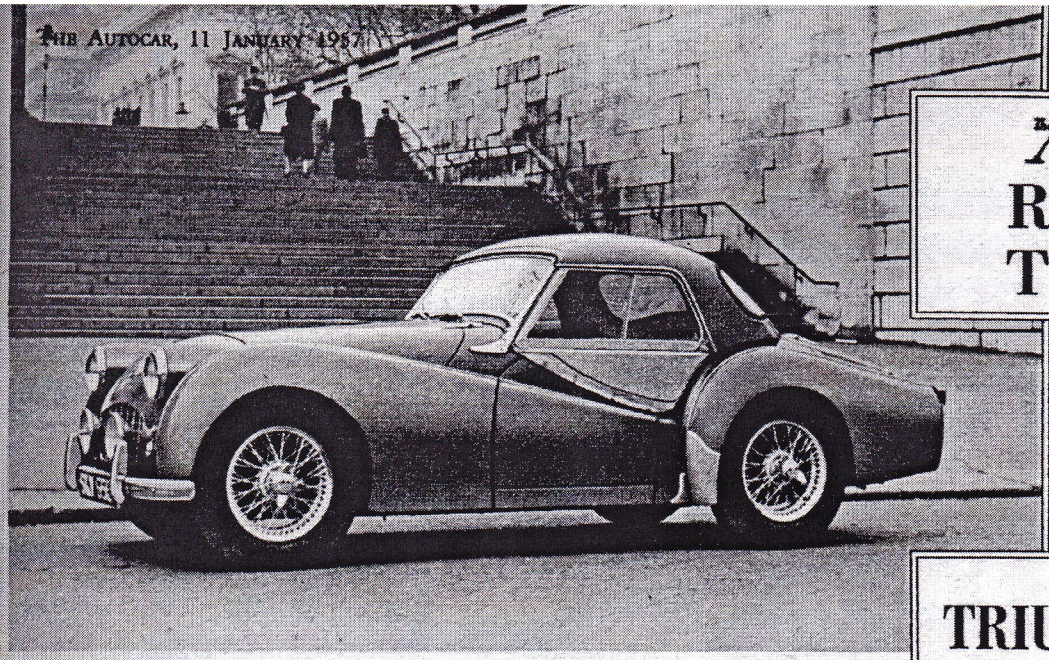


The hardtop blends well with the shape of the car proper, sweeping rearwards to make a smooth joint with the tail. The car tested was complete with wire wheels, bumper overriders at the front, a fog lamp and a long range lamp

The Autocar
ROAD TESTS

No. 1622

TRIUMPH TR3
Hardtop

FOR the TR sports models made by the Triumph company and delivered in considerable numbers to purchasers at home and abroad, the past three years have brought steady development without major redesign. The original two-seater had an excellent reception and at once began to distinguish itself in competition. A full Road Test of the TR2 appeared in *The Autocar* of January 8, 1954, and of the hardtop model on February 18, 1955. Since then a number of changes have been made in the specification, among the most important of which is the adoption of disc brakes for the front wheels on the latest model here described.

In summarizing the specification, one thinks at once of the excellent 1,991 c.c. engine, which is smooth for such a large four-cylinder, gives plenty of power, and additionally has earned a reputation for economy and long life. In its latest form the engine, which is essentially similar to the power unit of the Standard Vanguard, gives 100 b.h.p. at 5,000 r.p.m., 10 b.h.p. more than the output reached on the earlier cars at 4,800 r.p.m.

Despite the power increase, and the smoother body shape with hardtop as compared with the ordinary hood of the first car to be tested, some of the performance figures are not quite as good as those of the earliest car. However, they are a little higher than for the TR2 hardtop. In an economically produced car there is often some small variation in performance between one example and another, but the main reasons for the present car not showing up quite so well are that the weight is now greater, and weather conditions on the Belgian *autoroute*, where the acceleration testing took place, were decidedly worse than those prevailing for the earlier tests. There was a stiff diagonal breeze, which was particularly noticeable at the higher speeds.

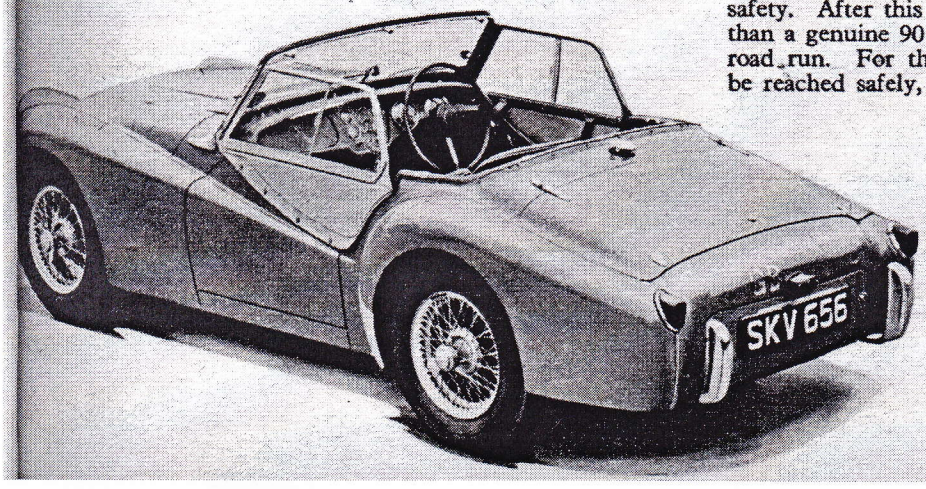
Two effects which accompany the increased power and provision of the hardtop, disc front brakes and overdrive on the upper *three* gears are an increase in price, which now totals over £1,000 including £360 British purchase tax, and an increase also in fuel consumption. High performance has always to be paid for and the latest car still represents good value. The latest m.p.g. figures are also creditable for such a fast car.

How does the TR3 hardtop behave on the road and in what way have the modifications affected its handling characteristics? One difference was unexpected: the stability of the back end on corners is not quite so good, particularly if the road surface is poor. The car will get from A to B remarkably quickly, but care is desirable if the tail is not to skip out occasionally, or bump-skid on second-class roads. The high-geared steering enables immediate corrections to be made, and the skittishness at the rear, therefore, is not of a kind to bring trouble.

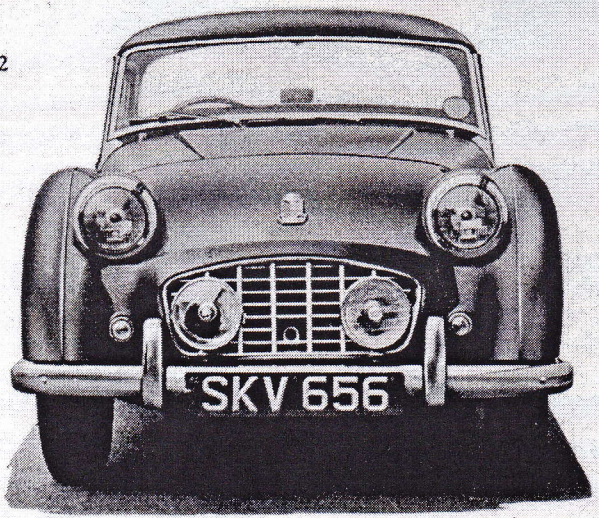
A possible cause of the handling difference compared with the previous car is that there is now a bigger, heavier, altogether stronger rear axle assembly. Strangely enough, during the test, the unit failed from what may fairly be called a freak fault: some of the bolts holding the crown wheel to the differential cage sheared. A replacement of the earlier type was immediately despatched to the local Belgian agent by the Standard and Triumph concessionaires for that country, and this was used for most of the test and performance measurement.

General stability is of a fairly high standard, although driving can become a little tiring on fast, fairly straight roads when there is any wind. In such conditions the driver must keep the car straight by conscious effort. A greater tendency for the car to follow its nose would then be welcome.

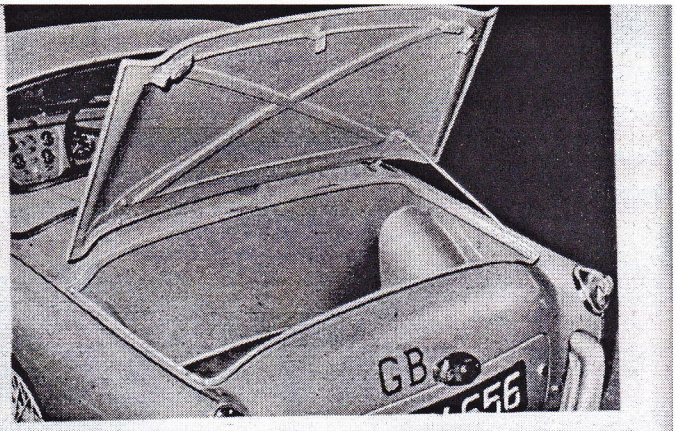
The car reaches 80 m.p.h. so quickly that even on busy British roads such speed may be used frequently and in safety. After this point the acceleration falls off, yet more than a genuine 90 m.p.h. is attainable on any longish main road run. For the high maximum of over 100 m.p.h. to be reached safely, a real motor road, of the kind found on



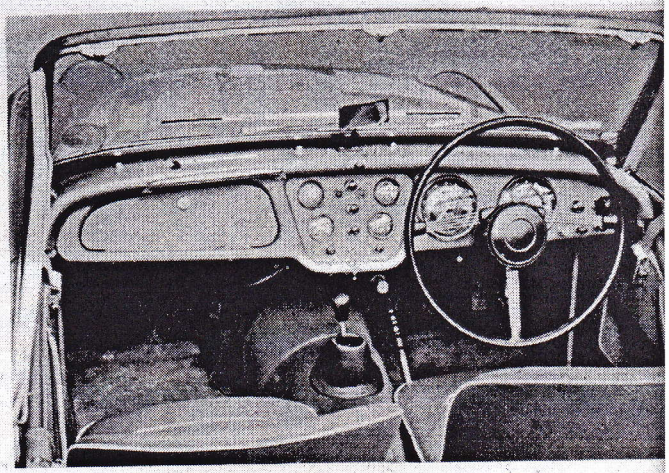
The sidescreens are strongly made and fitted with sliding plastic windows. The hardtop is rigidly anchored to three mounting points at the top of the screen, and five round the rear edge of the driving compartment



Separate sidelights are fitted at each side of the grille, in the centre of which can be seen provision for using a starting handle. The wipers park well out of the line of vision



Luggage space is unusually good for a car of such sporting character. The spare wheel is housed in a separate compartment behind the number plate. A special key is required to unfasten and fasten the bonnet, locker lid, and spare wheel cover



The instrument layout is sound, dials and minor controls being simply laid out where they can be seen easily. Centrally at the top of the facia is a control for the fresh air ventilator

TRIUMPH TR3 . . .

the Continent or across the Atlantic, would be desirable.

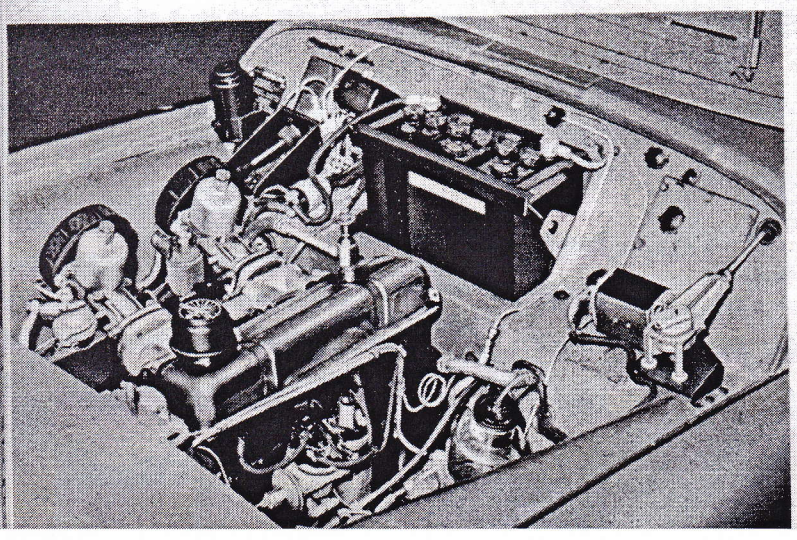
The Laycock-de Normanville electrically operated overdrive is used normally only on top gear, the first three orthodox gears being more than adequate for building up speed quickly. Overdrive was not used at all in obtaining standing start acceleration data, but on the main road, second or third gear overdrive is particularly convenient when a higher ratio is wanted quickly while overtaking other traffic. The change into overdrive is smooth when accelerating at fairly high engine speeds, but just a little jerky when re-engaging normal gear.

On the earlier models tested, overdrive operated only on top gear. The advantages of overdrive are appreciated, particularly while fuel is in short supply, in a powerful light car with a small frontal area. This model may be persuaded quite easily to give a substantial economy, cruising effortlessly at quite high speed in overdrive top. In town the overdrive available on second and third may be used to smooth out traffic restrictions and to save fuel. Making an effort to use little fuel a figure of 35 m.p.g. should be obtainable. The earlier model, unmodified but using special driving techniques, won an economy contest at 71.02 m.p.g.

One of the few real innovations of recent years has been the application of disc brakes, for which reason special interest attaches to those enterprisingly fitted at the front of this model. They are of Girling design and construction, and much of the story is told by the data. The Tapley meter recorded 94 per cent efficiency with a pedal pressure of 70 lb, and 72.5 per cent with a modest 25 lb. These figures show that the retardation power is excellent. During testing there was no deterioration of the brakes, and never a trace of fade.

The only peculiarity of discs—certainly not confined to this car—is some squeaking, particularly when cold. The noise is of high frequency, sounding at times rather like a typical French car horn at a distance. It is not loud enough to annoy. The fly-off lever, which acts on the orthodox drum rear brakes, has its handle a little far from the driver, but is not difficult to reach. Two long-legged drivers found during the test that the lever caused discomfort by vibrating against the left leg—a fault overcome by taping some sponge rubber to the handle.

Engine accessibility is much above average. Coil and distributor are in the foreground, and the water filler to the left of the oil filler on top of the engine. The TR3 engine has inclined twin S.U. carburettors with individual air cleaner-silencers



The hardtop is detachable. It has a pleasing, smooth shape and is well finished. The mounting is strong, and although a spanner is required to take the top off, the job does not take long. Plastic sliding windows are fitted in the sidecreens. To open a door from the outside, a window must be opened first so that one's hand may reach down to one of the interior door handle straps. The mating of the forward edges of the sidescreens with the windscreen is not perfect, and as a result there is some wind noise. Any slight draught in the cockpit is offset by the effective heater. All-round visibility is good, as the rear window sweeps well forward towards the sidescreens.

The instrument layout is both tidy and comprehensive, and is well suited to the character of the car. The separate bucket seats give good lateral support, but the backrests could be improved. On a long run the centre of one's back may ache unless a small cushion is inserted where it will keep the back straight.

The rev counter and speedometer can be seen through the unobstructed upper half of the three-spoked sprung steering wheel, and most of the minor controls are laid out in a row at the foot of the facia. Gauges for oil pressure, water temperature, charging rate, and fuel level are grouped in the centre of the facia, with a lockable glove compartment to their left. There are also quite large pockets in the doors. The passenger is provided with a grab handle, albeit mounted in a position which might cause injury in the event of an accident. Elbow room is just sufficient.

Entry and exit is rarely very easy in a sports car, but on this Triumph the doors have good width, and the sides of the scuttle are well cut away so that occupant's legs may be

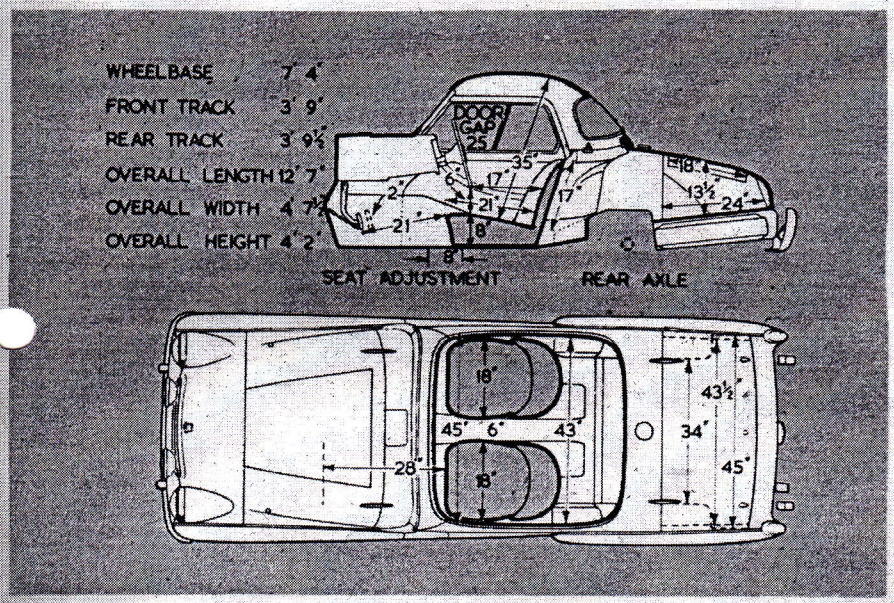
swung in or out of the car without much difficulty.

Luggage space is good for a car of this type. There is a locker at the rear where soft bags may be stowed over the separate spare wheel compartment, and there is a considerable amount of room behind the seats. An occasional bench seat can be provided for children. Between the locker lid and the hardtop is the quick-release fuel filler cap, sensibly mounted in the middle where it is easy to reach from either side.

Both the luggage locker and the bonnet can be opened only with a special, square-ended key kept inside the car. Under-bonnet accessibility is above average. The twin S.U. carburettors, dip stick, coil, distributor, oil and water fillers are all easy to get at. The battery is mounted centrally, but nevertheless it is easy to top up with one of the patent filling bottles now available, or one may inspect three cells from each side of the car.

In its latest form the TR3 is an exciting sports car, traditional to drive, fast, flexible and with first-class brakes. The steering is quick and light, and visibility good. This latest model is as pleasant when it is closed up in the winter as it is in open form in the sunshine.

TRIUMPH TR3 HARDTOP



Measurements in these ¼in to 1ft scale body diagrams are taken with the driving seat in the central position of fore and aft adjustment and with the seat cushions uncompressed

PERFORMANCE

ACCELERATION: from constant speeds.

Speed Range, Gear Ratios and Time in sec.

M.P.H.	*3.03 to 1	3.7 to 1	*4.02 to 1	4.9 to 1	*6.07 to 1	7.4 to 1	12.5 to 1
10—30 ..	—	—	—	7.2	5.2	4.5	3.0
20—40 ..	—	9.6	9.9	7.0	5.25	4.45	—
30—50 ..	14.2	10.2	8.95	7.0	5.2	4.6	—
40—60 ..	16.0	11.0	9.5	8.7	6.0	—	—
50—70 ..	17.5	12.5	9.9	9.8	—	—	—
—80 ..	20.9	10.5	11.2	—	—	—	—
—90 ..	29.0	16.8	15.2	—	—	—	—

* = Overdrive.

From rest through gears to:

M.P.H.	sec.
30	3.7
50	8.8
60	12.5
70	16.6
80	22.45
90	33.8

Standing quarter mile, 18.7 sec.

SPEEDS ON GEARS:

Gear	M.P.H. (normal and max.)	K.P.H. (normal and max.)
Top and (mean)	102	164.1
O.D. Top (best)	103	165.8
3rd	62—77	99.8—123.9
2nd	46—50	74.0—80.5
1st	24—30	38.6—48.3

TRACTIVE RESISTANCE: 23.3 lb per ton at 10 M.P.H.

TRACTIVE EFFORT:

	Pull (lb per ton)	Equivalent Gradient
O.D. Top	145	15.4
Top	210	10.6
O.D. Third	227.5	9.8
Third	290	7.6
O.D. Second	400	5.5
Second	472.5	4.7

BRAKES:

Efficiency	Pedal Pressure (lb)
72.5 per cent	25
87.5 per cent	50
94.0 per cent	70

FUEL CONSUMPTION:
24.9 m.p.g. overall for 561 miles (11.3 litres per 100 km.).
Approximate normal range 21.1–31.9 m.p.g. (13.5–8.8 litres per 100 km.).
Fuel, Premium.

WEATHER: Dry; stiff, 45° diagonal breeze.
Air temperature 54 deg F.
Acceleration figures are the means of several runs in opposite directions.
Tractive effort and resistance obtained by Tapley meter.

SPEEDOMETER CORRECTION: M.P.H.

Car speedometer	10	20	30	40	50	60	70	80	90	103
True speed	11	20	29	38	47	57	66	76	85	100

DATA

PRICE (basic), with hard top body, £715.
British purchase tax, £358 17s 0d.
Total (in Great Britain), £1,073 17s 0d.
Extras (including tax): Radio £45. Heater £15. Wire wheels and centre-lock hubs, £37 10s. Adjustable steering column, £7 10s. Overdrive, £63 15s. Occasional rear seat, £21 (Vynide).

ENGINE: Capacity: 1,991 c.c. (121.5 cu in).
Number of cylinders: 4.
Bore and stroke: 83 × 92 mm (3.268 × 3.622in).
Valve gear: overhead valves and pushrods.
Compression ratio: 8.5 to 1.
B.H.P.: 100 at 5,000 r.p.m. (B.H.P. per ton laden 80).
Torque: 117.5 lb ft at 3,000 r.p.m.
M.P.H. per 1,000 r.p.m. on top gear, 20.
M.P.H. per 1,000 r.p.m. on overdrive, 24.4.

WEIGHT: (with 5 gals fuel), 22 cwt (2,464 lb).
Weight distribution (per cent): F, 53; R, 47.
Laden as tested: 25 cwt (2,800 lb).
Lb per c.c. (laden): 1.4.

BRAKES: Type: F, disc; R, leading and trailing shoe.
Method of operation: F, hydraulic; R, hydraulic.
Brake dimensions: F, 11in diameter disc; R, 10in diameter; 2½in wide.

TYRES: 5.5—15in.
Pressures (lb per sq in): F, 22; R, 24 (normal). F. 28; R. 30 (for fast driving).

TANK CAPACITY: 12 Imperial gallons.
Oil sump, 11 pints.
Cooling system, 13 pints (plus 1 pint if heater is fitted).

TURNING CIRCLE: 35ft 0in (L and R).
Steering wheel turns (lock to lock): 2¼.

DIMENSIONS: Wheelbase: 7ft 4in.
Track: F, 3ft 9in; R, 3ft 9½in.
Length (overall): 12ft 7in.
Height: 4ft 2in.
Width: 4ft 7½in.
Ground clearance: 6in.
Frontal area: 15.5 sq ft (approximately).

ELECTRICAL SYSTEM: 12-volt; 51 ampère-hour battery.
Head lights: Double dip; 60–36 watt bulbs.

SUSPENSION: Front, independent, with wishbones and coil springs. Rear, half-elliptic leaf springs.