

STANDARD - TRIUMPH

MARCH

ONE SHILLING

# Review







## SWISS DEBUT FOR

### SPITFIRE Mk. 2



With the introduction of the TR4A, Standard-Triumph has become the first major British manufacturer to provide all-round independent suspension on its full range of passenger cars. The new suspension, on the rear of the TR4A, is an improvement which is designed to give the car greater appeal in Britain. In the past the TR range was produced primarily for the United States, and for that reason independent rear suspension was considered not essential. Now the TR4A is also equipped to meet home market requirements.

Announcement of the new car and its junior partner, the Spitfire Mk. 2, was made at the Geneva Motor Show, stressing again the importance of Europe — now rivalling North America for Triumph sales. In fact, as heavy overseas demand is expected, emphasis was placed on left-hand drive vehicles during the preliminary production period.

A degree of uniformity introduced into the two sports cars means that both now have all-round independent suspension, diaphragm clutch and a no-loss cooling system, and the TR4A has been brought even further into line with other Triumph models by making it possible to introduce a 6,000 mile service in place of the previous service after 3,000 miles. This has been done by reducing the greasing points from 21 to 9 and using nylon bushes and sealed joints on the front suspension, considerably cutting maintenance work.

### Company Policy

As one of the leading sports car manufacturers in the world, the Company has always believed that, provided truly sporting performance and safety can be retained and improved, as much





# TRIUMPH TWOSOME

comfort and convenience as possible should be built into their products.

Constant research has meant that as new techniques have been perfected they have been incorporated into production models, and the result is that the TR4A and Spitfire Mk. 2 are even more comfortable, exhilarating and safer than before — factors which are intended to keep them in the forefront of sports car design.

Available as a convertible sports or hard top with detachable roof panel, the TR4A is recognisable by a sleek new radiator grille, chromium side flashes housing the side lamps and new side indicators, and badges front and rear including the famous Triumph "world" badge on the bonnet.

## Independent Rear Suspension

Superb road holding and maximum comfort on all road surfaces are the main benefits of the new independent rear suspension. It consists of coil springs employing cast aluminium semi-trailing arms with lever-type dampers. In addition the chassis has been completely re-designed and is immensely strong — the perfect basis for a fast sports car and just one of the factors ensuring that full advantage can be taken of the TR4A's 110 m.p.h. performance.

Welcome too is the new fully convertible hood of the TR4A. This incorporates all the Company's experience as Britain's largest manufacturer of convertibles. All that is required to fold the hood back and out of sight, is the releasing of two hood catches on the windscreen rail, a simple, quick and efficient operation, and just as easy when raising the hood. Final touch is a neat hood-stick cover.

**TR4A**







*A sleek new grille, overriders set further outboard, chromium side flashes and the Triumph "world" motif, distinguish the TR4A from its forerunners.*

## Comfort and Safety

Inside the TR4A there is elegance and comfort. Instrumentation is set in walnut, and the facia surround and facia support console are padded and trimmed with all switches on the switch panel recessed — additional safety features.

The lighting control system has been transferred to a stalk-type switch on the steering column, and a backward movement of the switch operates the headlamp flasher. Two-speed windscreen wipers and twin padded sun-visors are now standard equipment, and the fly-off handbrake appears in a convenient position in the centre of the transmission tunnel.

Maximum support and comfort are provided by the re-designed seats, and they are finished in the very latest expanded P.V.C.—Ambla and similar material — supple, firm and hardwearing.

The floor is covered in thick pile carpet and the door waist rails are padded and trimmed.

## Noise Reduced

Twin exhausts help reduce noise, the no-loss cooling system collects the overflow from the warm engine and returns it when the engine cools down, and other new features are a one-piece air filter, diaphragm clutch and closed circuit breather system.

The TR4A retains the unique feature of detachable wet cylinder liners, thus remaining the only British-made passenger car to have them; a trend which is already widespread among European car makers.



*On this left-hand drive TR4A the new lighting control lever is on the right of the steering column (on the left of the right-hand drive version). Note also the recessed switches on the central panel.*







*A new grille of extruded aluminium is one external change in the Spitfire's appearance.*



*Fully carpeted and with padded and trimmed waist rails, etc., the Spitfire also has more comfortable seating.*



## Performance Improved

Top speed of the Spitfire Mk. 2 at 96 m.p.h. is higher than its predecessor thanks to a new camshaft and a novel fabricated (not a casting) exhaust manifold. Acceleration figures have been improved, 60 m.p.h. being reached in 14 seconds or 1.5 seconds earlier than with the previous model. Only 19 seconds is required for the standing quarter-mile — another improvement.

Warming-up is quicker through a water-heated inlet manifold, and the no-loss cooling system mirrors that of the TR4A. An important addition is the diaphragm-type clutch, which reduces fatigue when driving for any length of time.

Hand-in-hand with the extra zip of the new Spitfire go comfort and safety. Similar seats to the TR4A have been installed, again in the increasingly popular expanded P.V.C.

## Luxury Interior

Except for the central instrument panel, the fascia, passenger's grab handle, parcel rail, fascia support and windscreen surround are trimmed and padded. Similarly treated are the door waist rails; the floor is fully carpeted and carpeted panels at the door bases eliminate damage from kicking.

Externally, the Spitfire Mk. 2 can be distinguished by a smart new front grille of extruded aluminium and the "Mk. 2" insignia on the boot lid.

Competition equipment is included in a comprehensive list of optional extras.

Standard-Triumph have set out to improve on last year's production figures, including the 25,000 units sold in the American market. As the great majority of the company's exports to the U.S.A. are sports cars, the two new models will reinforce the already strong Triumph representation in North America while also proving an even greater attraction for sports car enthusiasts in the United Kingdom and Europe.

*"In case there's a change in the weather", the TR4A's fully convertible hood makes quick protection from the elements a simple matter. And when stowed away, note the neat hood-stick cover which gives that final touch.*



# BRIEF SPECIFICATION OF THE SPITFIRE Mk. 2

## Engine

Number of cylinders	..	..	4
Bore of cylinders	..	..	69.3 mm. 2.728 in.
Stroke of crank	..	..	76 mm. 2.992 in.
Capacity	..	..	1147 cc. 70 cu.in.
R.A.C. Rating	..	..	11.9 h.p.

## General Dimensions

Wheelbase	..	..	6ft. 11 in. 2110 mm.
Track—Front	..	..	4ft. 1in. 1245 mm.
Rear	..	..	4ft. 0in. 1220 mm.
Ground Clearance (Laden)	..	..	5 in. 125 mm.
Turning Circle	..	..	24ft. 0in. 7.3 metres
Overall Dimensions			
Length	..	..	12ft. 1in. 3685 mm.
Width	..	..	4ft. 9in. 1450 mm.
Height with Hood (unladen)	..	..	3ft. 11½ in. 1205 mm.
Height without Hood (unladen)	..	..	3ft. 8½ in. 1125 mm.

## Weights

Dry (excl. extra equipment)	..	..	13¾ cwt. 700 kg.
Complete (incl. fuel, oil, water and tools)	..	..	14½ cwt. 735 kg.
Max. gross vehicle weight	..	..	17¾ cwt. 905 kg.

## Capacities

	Imp.	Metric	U.S.A.
Fuel Tank	..	..	8½ galls. 37.6 litres 9.9 galls.
Engine	..	..	7½ pints 4.3 litres 9.0 pints
Gearbox	..	..	1½ pints .85 litre 1.8 pints
Rear Axle	..	..	1 pint .57 litre 1.2 pints

Cooling system (incl. water bottle)	..	..	8½ pints 4.8 litres 10.2 pints
Cooling system with heater (incl. water bottle)	..	..	9½ pints 5.4 litres 11.4 pints

Tyres	..	..	5.20—13 Dunlop Tubeless
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## Road Speed Data

Engine Speeds at:	Top	3rd	2nd	1st
Road speed of 10 m.p.h.	..	635	890	1375 2385
10 km.p.h.	..	395	550	855 1480
Road speed at 1000 r.p.m. in top gear	..	..	..	15.75 m.p.h.

## Maximum recommended speeds in intermediate gears

(Corresponding to engine speed of 6000 r.p.m.)	Gear	m.p.h.
	3rd	67
	2nd	43
	1st	25
	O D 3rd	87

## Performance Data

Engine (9.0 c.r.):	Maximum power	67 b.h.p. at 6000 r.p.m.
	Maximum torque	804 lbs./in. at 3760 r.p.m.
	Equivalent to:	144 lbs./sq. in. b.m.e.p.

## Car Performance

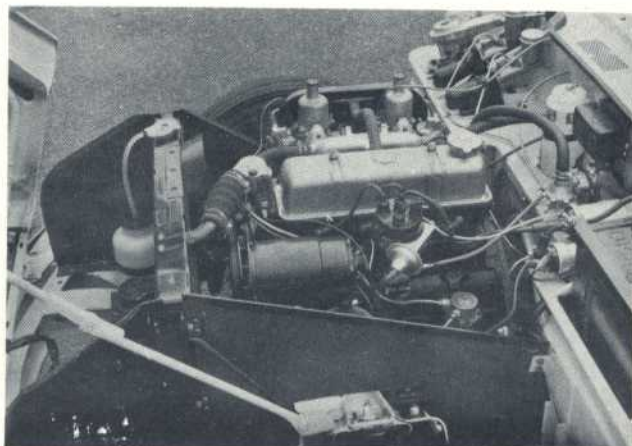
Acceleration	Speed Range	Time (secs)
	Top 20-40 m.p.h. (32-64 km.p.h.)	11.0
	Top 30-50 m.p.h. (48-80 km.p.h.)	10.5
	Top 40-60 m.p.h. (64-97 km.p.h.)	10.5
	Through 0-50 m.p.h. (0-80 km.p.h.)	10.0
	Through 0-60 m.p.h. (0-97 km.p.h.)	14.0
	Standing quarter-mile	19.0

Maximum speed: 94/96 m.p.h. depending upon conditions.

Braking: Maximum retardation .98 g., equivalent to stopping from 30 m.p.h. in approximately 31 ft.

## Transmission

Clutch	..	..	Diaphragm type 6½" diameter, hydraulically controlled.
Gearbox	..	..	Four forward speeds and reverse. Remote control gear lever centrally mounted behind gearbox. Synchromesh on 2nd, 3rd and top. Silent helical gears.
Ratios	..	..	Top 3rd 2nd 1st & Rev. 1 1.39 2.16 3.75
Overall ratios	..	..	4.11 5.73 8.87 15.40
Propellor shaft	..	..	All metal. Needle roller bearings.
Rear axle	..	..	Swing axle shafts. Axle centre rubber mounted.
Drive	..	..	Hypoid bevel gears.
Ratio	..	..	4.11



The no-loss cooling system and the fabricated exhaust manifold can be seen under the Spitfire's bonnet.

## Suspension

Front	..	..	Independent suspension system with rubber bushed wishbone pivots. Patented screwed bottom bush (incorporating its own oil reservoir) and special wear resisting top ball joint swivels.
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Coil springs controlled by telescopic type direct acting hydraulic dampers and anti-roll bar. Taper roller bearings in hubs.

Rear	..	..	Swing axle type independent suspension with transverse leaf spring and radius rods. Ball and needle roller bearings in hubs.
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Wheels	..	..	Steel disc type, 3½" drum.
Jacking	..	..	Under frame portable jack.

Brakes	..	..	Caliper disc brakes on front wheels, disc dia. 9". Drum brakes, 7" dia. x 1½" wide, of leading and trailing shoe type on rear wheels.
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Front lining area: 12 sq. in.

Front swept area: 144 sq. in.

Rear lining area: 34 sq. in.

Rear swept area: 55 sq. in.

Total lining area: 46 sq. in.

Total swept area: 199 sq. in.

Operation	..	..	Pedal operates all four brakes hydraulically. Centrally mounted handlever operates rear brakes mechanically.
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Frame	..	..	Double backbone of closed channel section with channel outriggers.
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Steering	..	..	Rack and pinion type. Two spoke steering wheel 16" dia. Telescopic and collapsible type steering column; recommend adjustment ranges from 4" depressed to fully extended. Independent height adjustment through 1", 3½ turns lock to lock.
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Battery	..	..	12 volt, located under bonnet.
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Seating	..	..	Separate seats, adjustable fore and aft by easily operated control. Both seats tilt forward for access to rear compartment.
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Instruments	..	..	Centrally grouped in instrument panel and comprising: speedometer, tachometer, temperature gauge, fuel gauge, warning lights for main headlamp beam, oil pressure and ignition are contained in speedometer dial, direction indicator warning light in facia.
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Controls	..	..	Ignition lock, choke pull, screen wiper switch, side headlamps and instrument illumination master switch, and screen washer push, located on facia below instruments.
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Selection of main headlamp beam or dip by three position lever on steering column which incorporates a headlamp daylight flasher switch. Self-cancelling direction indicators controlled by lever on steering column. Horn push in steering wheel centre boss.



Engine	Max. power	Max. torque	Equivalent to	Piston speed	2898 ft./min.	at 4800 r.p.m.	(equivalent to 100 m.p.h. in top gear).
104 b.h.p. at 4,700 r.p.m.	..	..	..	..	..	..	..
1590 lbs./in. at 3,000 r.p.m.	..	..	..	..	..	..	..
154 lbs./sq.in. b.m.e.p.	..	..	..	..	..	..	..

Engine	
Number of cylinders	4
Bore of cylinders	86 mm.
Stroke of crank	92 mm.
Capacity	2138 cc.
R.A.C. Rating	18.34 h.p.
Compression ratio	9 or 7
Wheelbase	7 ft. 4 in.
Track	2240 mm.
Front—Disc Wheels	4 ft. 1 in.
Wire Wheels	4 ft. 1½ in.
Rear—I.R.S. Disc Wheels	4 ft. 1½ in.
Wire Wheels	4 ft. 1½ in.
Live Axle—Disc Wheels	4 ft. 0 in.
Wire Wheels	4 ft. ¾ in.
Ground Clearance	1239 mm.
Turning Circle	152 mm.
Overall Dimensions	10.4 metres
Length	3960 mm.
Width	1470 mm.
Height (unladen) with hood	4 ft. 10 in.
Hood folded and screen removed	4 ft. 2 in.
Top of screen	3 ft. 10 in.
Dry (excluding extra equipment)	3 ft. 4 in.
Complete (including tools, fuel, oil and water)	20 cwt.
Fuel tank	53.5 litres
Engine sump	6.56 litres
Gearbox	0.85 litre
Rear axle	5.7 litres
Cooling system	6.2 litres
" with heater	11 pints
" "	10 pints
" "	1½ pints
" "	1½ pints
" "	11½ pints
" "	11½ gall.
" "	1016 kg.
" "	965 kg.

**Parcel and Luggage Accommodation:**  
Large lockable boot at rear. The spare wheel is housed on the boot floor. Luggage space behind rear seats and parcel tray below fascia.  
When not in use the hood may be stowed behind rear luggage space, and hood-sticks stowed above this and strapped in position.  
Driver's door locks externally and passenger's door internally.

**General Equipment**

**Interior** .. .. .  
Driving mirror. Padded passenger grab handle. Ash tray in top fascia rail. Attachments for safety harnesses.  
Carpet Floor Covering.  
Lamps: Front — Flush fitting sealed beam headlamp units. Separate parking lamps and direction indicator flashers mounted below headlamps.  
Rear — Integral rear lights, braking lamps and reflectors. Separate direction indicator flashers. Chromium plated number plate illumination lamp.  
Self-parking twin electric screen wipers. Screen washer. Twin windstone horns. Full width front bumper with chromium plated overriders. Wrap around rear bumpers with chromium plated overriders. Stainless steel wing finishing beads. Chromium plated nave plates. Tool roll, wheelbrace and jack. Spare wheel and tyre.

**Interior Dimensions** (with seats in centre of  $7\frac{1}{2}$ " travel):

Seat width (each)	46 $\frac{1}{2}$ "	ins.
Seating width (between doors)	47	m.m.
Seat height from floor	18	
	46 $\frac{1}{2}$	
	1180	
	203	

Optional Items at Extra Cost	6.7 cu.ft.	19 cu.m.
Seat depth (fore and aft)	18 1/2	470
Head room from seat cushion	34 1/2	36
Steering wheel clearance from seat cushion	6	152
Steering wheel clearance from seat squab	18 1/2	465
Squab to clutch pedal	42 1/2	1085
Width of door opening at waist	28 1/2	725
Interior width between sills	45 1/2	1155
Max. interior height	40	1015
Luggage space behind seats:		
Length (mean)	13	330
Width between rear wheel arches	35 1/2	900
Height: Front (floor to top of seat squab)	21	535
Rear (floor to top of body)	20 1/2	525
Luggage Boot:		
Height	14 1/2	370
Height above spare wheel	9	230
Depth (fore and aft)	20	510
Width	46 1/2	1185
Boot opening width	42	1065
Capacity		
Laycock de Normanville overdrive on top two gears		
Hard Top		
Tonneau Cover		
Girling "Power Stop" Brake Servo Unit		
Wheel Trim		
Leather Seat Covering		
5.20-13 four ply rated Whitewall Tyres		
Heater and Demister		
Wire Wheels		
Sun Visors		
Competition Equipment:		
Dampers		
Front and Rear Road Springs		
Disc Brake Pads (DS.11)		
Engine Oil Cooler Kit		
Engine Tuning Kit		
Skid Plate (for Heavy Duty also)		
Dunlop SP 145/5.5-13 Tyres		



## SPECIFICATION TR4A (Continued)

Acceleration (two up)	Speed Range	Time (secs.)
<b>3.7 axle</b>		
Top ..	20-40 m.p.h. (32-64 km.p.h.)	8.6
Top ..	30-50 " (48-80 ")	8.3
Top ..	40-60 " (64-97 ")	8.2
Through ..	0-50 " (0-80 ")	7.9
Through ..	0-60 " (0-96 ")	10.9
Standing quarter mile ..	.. ..	17.7

<b>4.1 Axle</b>		
Top ..	20-40 m.p.h. (32-64 km.p.h.)	7.6
Top ..	30-50 " (48-80 ")	7.7
Top ..	40-60 " (64-97 ")	7.6
Through ..	0-50 " (0-80 ")	7.7
Through ..	0-60 " (0-96 ")	10.4
Standing quarter mile ..	.. ..	17.3
Maximum speed — Top gear 110 m.p.h.		

**Transmission**  
Clutch .. Diaphragm type 8½" dia. hydraulically operated.  
Gearbox .. Four forward ratios and reverse. Synchromesh on all forward ratios:

	Top	3rd	2nd	1st	Rev.
Ratios ..	1.00	1.33	2.01	3.14	3.22
Overall ratios ..	3.7	4.9	7.43	11.61	11.92

Propellor shaft — all metal shaft, needle roller bearings.

Rear axle:

I.R.S. .. Final drive unit rubber mounted.

Live axle .. Semi-floating axle shafts, three piece casing. Taper roller bearings in hubs.

Drive .. Hypoid bevel gears. Taper roller bearings.

Ratio .. 3.7 (10/37)

### Suspension

Front .. Low periodicity independent suspension system. Patented bottom bush and top ball joint wheel swivels. Coil springs controlled by telescopic dampers. Taper roller hub bearings

Rear:

I.R.S. .. Semi-trailing arm independent suspension with coil springs controlled by piston dampers. Mounted on frame through rubber bushed pivots and with rubber insulation of spring.

Live Axle .. Wide semi-elliptic springs, controlled by piston dampers.

### Wheels

.. Steel disc type, 4J rim.

### Jacking

.. Scissor type.

### Brakes

.. Caliper disc brakes on front wheels; total swept area 233 sq. in.  
Drum brakes, 9 in. x 1½ in. of leading and trailing shoe type on rear wheels; total swept area 99 sq. in. Foot pedal operates all four brakes hydraulically. Centrally mounted hand-lever operates rear brakes mechanically.

### Frame

.. Rigid structure. Channel steel pressings form box section side members braced by a cruciform member.

### Steering

.. Rack and pinion type. Optional right or left hand drive, steering wheel 16 in. diameter (406 mm.). 3 spoke type. Telescopically adjustable and collapsible steering column. 3¼ turns lock to lock.

### Battery

.. 12 volt, located under bonnet.

### Seating

.. Two bucket-type with deep shaped squab. Adjustable. Both pivot forward for access to rear.

### Instruments

.. 5 in. tachometer and 5 in. speedometer with trip positioned in front of driver. Separate instruments for ammeter, fuel, water temperature and oil pressure. Ignition and high beam warning lights. Direction indicator warning light.

### Controls

.. Combined ignition lock, starter control with third position for accessories. Knobs for choke, windscreen wipers, windscreen washers and panel lights with rheostat switch. Three position lighting control lever incorporating daylight flasher, on steering column giving off, side and headlamps. Foot operated dipswitch. Direction indicators operated by lever on steering column.

### Luggage Accommodation:

Enclosed glove locker with lock, in fascia panel  
Luggage space behind seats and in boot  
Spare wheel compartment below boot floor

### Locks

.. Handle to each door, both doors lock externally by ignition key. One piece bonnet arranged with pull type lock release mechanism operated by knob under dash. Lockable handle for boot lid.

### General Equipment:

Interior .. Driving mirror. Padded sun visors and passenger grab handle. Walnut veneered fascia panel with padded surround. Door waist rails and switch plinth padded. Ash tray in fascia. Attachments for safety harnesses.  
Exterior .. Headlamps (Home delivery). Powerful flush fitting sealed beam units.  
(Export) Lighting to suit all markets. Parking lights and flasher direction indicators mounted outboard of headlamps at front. Direction indicator repeaters mounted on side of front wings. Brake lights and reflectors mounted integrally with parking lights and direction indicators at rear. Number plate illumination lamps mounted on overriders. Stainless steel wing beadings. Chromium plated boot hinges. Windscreen washers.  
Twin windtone horns concealed. Hood in P.V.C. leathercloth embodies large backlight and quarter lights. Bonnet hinged at front. One piece bumpers front and rear, with overriders. Twin two-speed screen wipers. Scuttle ventilator flap. Spare wheel and tyre. Wheel-brace, jack and tool roll.

### Interior Dimensions

	ins.	mm.
Seat width (each) ..	18	457
Seating width (between doors) ..	48½	1232
Seat height (from floor) ..	8½	222
Seat depth (fore and aft) ..	18	457
Head room (from seat cushion) ..	34	864
Steering wheel clearance from seat cushion ..	5.5	140
Steering wheel clearance from seat squab ..	Min. 12	305
	Max. 21	533
Steering wheel telescopic adjustment ..	3	76
Squab to clutch pedal ..	Min. 35	889
	Max. 44	1118
Width of door opening at waist ..	28	720
Interior width (between sills) ..	48½	1230
Maximum interior height ..	40½	1030
Luggage space (behind seats):		
Length ..	Min. 15	380
	Max. 22	560
Width (between rear wheel arches) ..	33½	845
Height, front (floor to top of front squabs) ..	21	535
Height, rear (floor to top of rear squabs) ..	16½	420

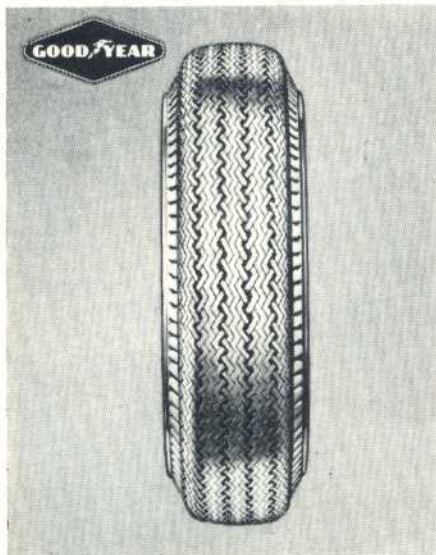
### Luggage Boot

Height ..	Min. 7½	190
	Max. 13½	340
Depth (fore and aft) ..	Max. 20	510
Width ..	Max. 46½	1180
Boot opening width ..	Max. 40	1015
	Min. 38½	980
Capacity ..	5.6 cu.ft.	16 cu.m.

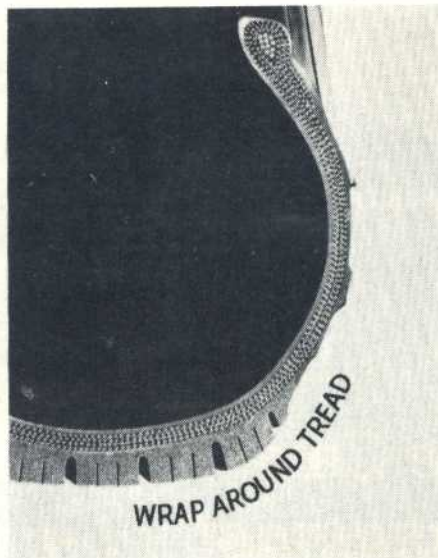
### Optional Items at Extra Cost

Laycock de Normanville overdrive on Top, 3rd and 2nd gears.  
Hood for use with roof panel removed (Hard-top Only).  
Tonneau cover.  
Leather upholstery.  
Short front undershield.  
Heater.  
Wire wheels and hubs, knock-on or centre locking nut type (tubed tyres only).  
Goodyear 6.95-15 Grand Prix whitewall tyres.  
Goodyear 165-15 G200 Steel Belted tyres.  
Goodyear 165-15 G800 Fabric Belted tyres.  
Michelin 165-15 X tyres.  
Dunlop 165/6.5-15 SP tyres.  
1991 c.c. engine 9.0:1 C.R.  
Occasional rear passenger seat (not suitable when soft top stowed).

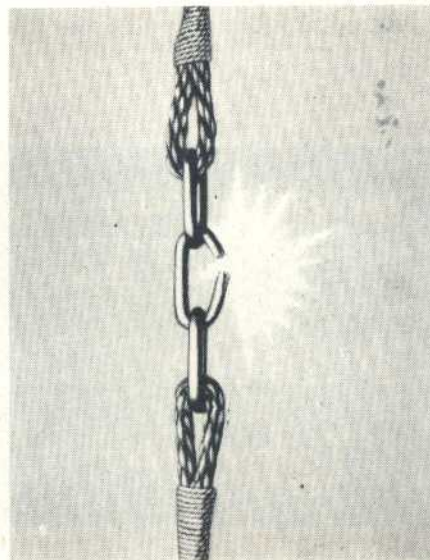




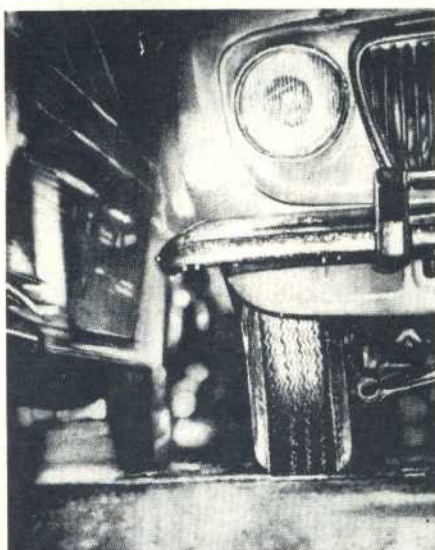
The new G8 has a multi-bladed tread pattern and is built with Tufsyn non-skid rubber.



Unlike ordinary tyres, its tread wraps around the shoulder for grip where it counts most—



and it is built with 3T tyre cord that is stronger than steel.



The self-adjusting tread and Tufsyn rubber ensure safe stops and unequalled 'wet-skid' resistance for town driving.



The round shoulders give safer cornering, easier steering, positive car control in the worst conditions.



No wonder the new TR4A is fitted exclusively with G8 tyres.

## THE ULTIMATE IN TYRE SAFETY FOR ALL CONDITIONS: G8

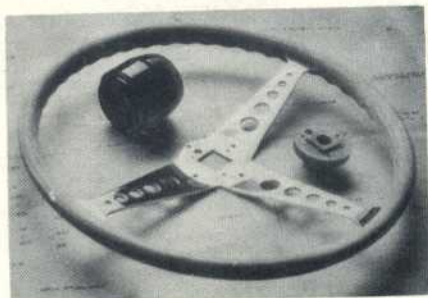
The G8 by Goodyear is built like no other tyre in the world, to give you greater confidence every mile you drive. No other tyre has so many exclusive features for safer, trouble-free motoring in all weathers. Its multi-bladed tread gives sure, non-skid grip on icy, snow-covered, slushy or rain-sodden roads. The tread itself, wraps around the tyre shoulder for vastly improved steering and complete control on wet,

slippery corners. 3T Cord, world's strongest tyre cord, and Tufsyn, world's toughest rubber, give it extra strength, make it cooler running for longer mileage. Only the G8 offers so much, yet costs no more. For utmost safety in all weather conditions, get the proved performance and protection of the G8. See your Goodyear dealer soon. Take the danger out of bad-weather motoring—drive on Goodyear tyres.

# GOOD YEAR



# The Pleasure of Wood at your fingertips



It is not so long ago that the car with the wooden steering wheel was something of a novelty, and the acquisition of such an addition was more of an affectation than a necessity. This is not so today for the wooden wheel is an asset to the discriminating motorist as well as an attractive extra trim for his vehicle.

And whereas the wooden steering wheel of not so many years past was often expensive, today's motorist can be the proud possessor of such an improvement for as little as £7 10s.

Making this possible is a growing firm in the South, whose success has relied as much upon quality in its product as it has in the inventiveness and enthusiasm of a small team of keen young men.

The Formula Steering Wheel Company, of Webber Street, London, S.E.1., began small enough. Roy E. Legg, a director, who has been mainly responsible for the design and manufacture of the wooden steering wheels, remembers the day he rejoiced that he had trebled his output to 15 wheels a week. Now production is running at 2,000 a month and the demand grows.

It is increasing to such an extent that the firm is on the verge of moving to larger premises in Kent, and when that move takes place almost all the manufacturing processes will be under one roof.

The wheel begins as a 16in. square of duralumin. From this two spoke patterns are cut, and each set of spokes is firmly riveted to a steel ring which provides the strength of the finished wheel.

Around this is placed the wood, usually mahogany, and after polishing of the duralumin and spraying of the wood to give the final polish, the wheel is smart and pleasant to handle.

It all sounds so very simple, but the fact is that craftsmanship in manufacture has been allied carefully to precise mechanical preparation and unique preliminary design.

In all the processes through which the wheel is put, each acts as a further check against the previous one as regards the delicate accuracy required before the finished product is achieved.

"We are most conscientious about safety" stress Mr. Legg and his co-director Mr. R. A. Allen. The advantage of their system of reinforcement is that the wheel itself is continually secure through its steel ring and radially laminated wood rim, but the alloy spokes, by distorting in an accident, absorb the majority of the shock, reducing the chances of severe injury to the driver.

Other advantages of the wooden wheel are that it never gets too hot or too cold; the plastic centre is designed to fracture rather than cause major chest injuries; and of course, it is very attractive to look at.

That Formula Steering Wheel are meeting a pressing need is obvious. Their production is running as high as it can under their present factory arrangements and they have reached this situation in only seven years.

As well as their output for production cars, including the Triumph Herald range, TR4 and designs going ahead for the Triumph 2000, the firm have made special steering wheels for invalids' vehicles and for go-karts.



a further revolution. Set the No. 1 rocker clearance by inserting a 0.010 in. thick feeler gauge between the rocker and valve stem. Turn the adjuster with a screwdriver until slight resistance to movement of the feeler gauge is felt, tighten the locknut, re-check the clearance and re-adjust if necessary. Deal with each rocker adjustment in turn in a similar manner.

Now attach the dynamo adjusting link and push the generator as far as possible towards the engine, at the same time winding on the fan belt. Lever the dynamo away from the engine, and finally tighten the two lower pivot bolts and the top adjusting bolt. When the fan belt tension is correctly adjusted, it should be possible

to deflect it  $\frac{1}{4}$  in. at a point half-way between the dynamo and crankshaft pulleys.

Attach the exhaust pipe to the manifold, refit the heater connection radiator hoses and the drain pipe and reconnect the fuel pipe, vacuum pipe, temperature transmitter cable (where fitted) and carburettor controls. When connecting the choke cable, it is advisable to move the carburettor lever to its forward stop, and then pull the control knob about  $\frac{1}{4}$  in. away from the fascia. If the cable locking screw is then tightened, this will ensure that there is no chance of the choke being partially in use when the control knob is pushed fully in.

Clean the sparking plugs, but make sure that no particles of abrasive are left anywhere on or in the plug. The gaps should

be set to 0.025 in. Fit the plugs into the cylinder head and connect the respective high tension leads to them.

Fit the rocker cover, securing it with a fibre washer, plain steel washer and self-locking nut, in that order. Take care not to over-tighten the nuts, as quite a low torque is all that is necessary to ensure an oil-tight joint. Next, attach the air cleaner to the carburettor.

It merely remains to reconnect the battery cable and refill the radiator. Start the engine, run for a few minutes until warm, and then re-check the water level in the radiator, which may require "topping-up".

A final reminder—do not forget to check the cylinder head nuts for tightness after about 500 miles.



L. F. Dove Ltd., Kingston Road.



The T.R. Service Bay.



2 + 2 Dove G.T.R.4s.



The announcement of the latest development on the T.R. theme provides natural food for reminiscence on the origins of this highly successful sports car.

There is also a natural interest in those who have promoted its sale and servicing since those early days. In this context one distribution outlet—L. F. Dove Limited of Wimbledon—can be counted amongst the most enthusiastic right from the word "go".

Realising that sales promotion of this product, emanating from a factory until then renowned for its engineering quality but not in any sense for its success in the sports car field, would need an entirely new approach, L. F. Dove Limited at once equipped and publicised "The First Official T.R. Centre".

This involved the training of both sales and service staff and the equipping of a segregated area for the special servicing of this entirely new venture.

From these early days the TR Centre at Wimbledon has steadily progressed as a major outlet for these vehicles in the U.K., culminating in the conversion of the T.R.4 into their own special 2 + 2 (for adults and children) conversion now known throughout the world as the Dove G.T.R.4. This model has literally expanded their T.R. interest to world-wide proportions—examples are now to be found in service in places as far apart as Australia, Japan and the U.S.A.

In this specialist sphere the new T.R.4A will naturally fit. There could be no better place for the enthusiast. Whether his budget allows for a new or used T.R. there can be no more interesting and helpful set-up than the T.R. Centre—L. F. Dove Limited of Wimbledon.





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car  
to  
private  
world  
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wheels  
streaming  
soaring  
concrete  
white  
window'd  
cliffs  
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into  
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M355

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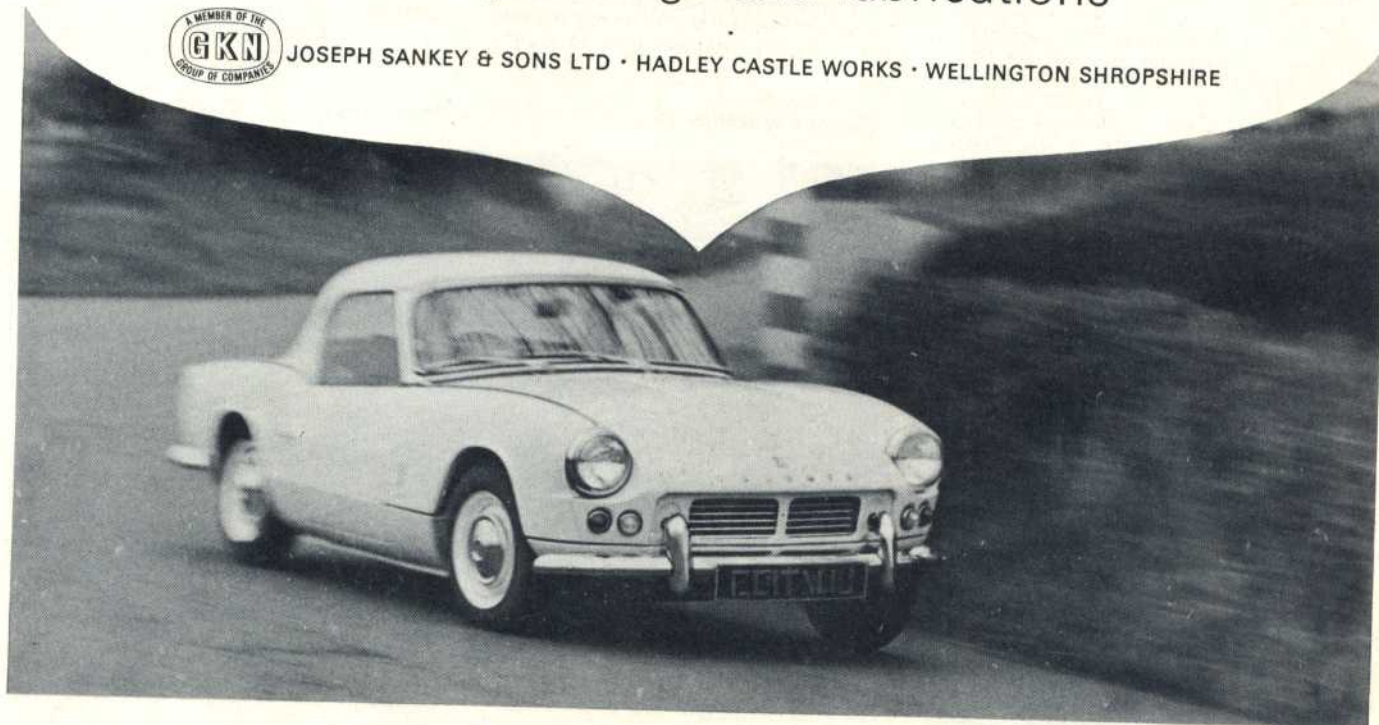
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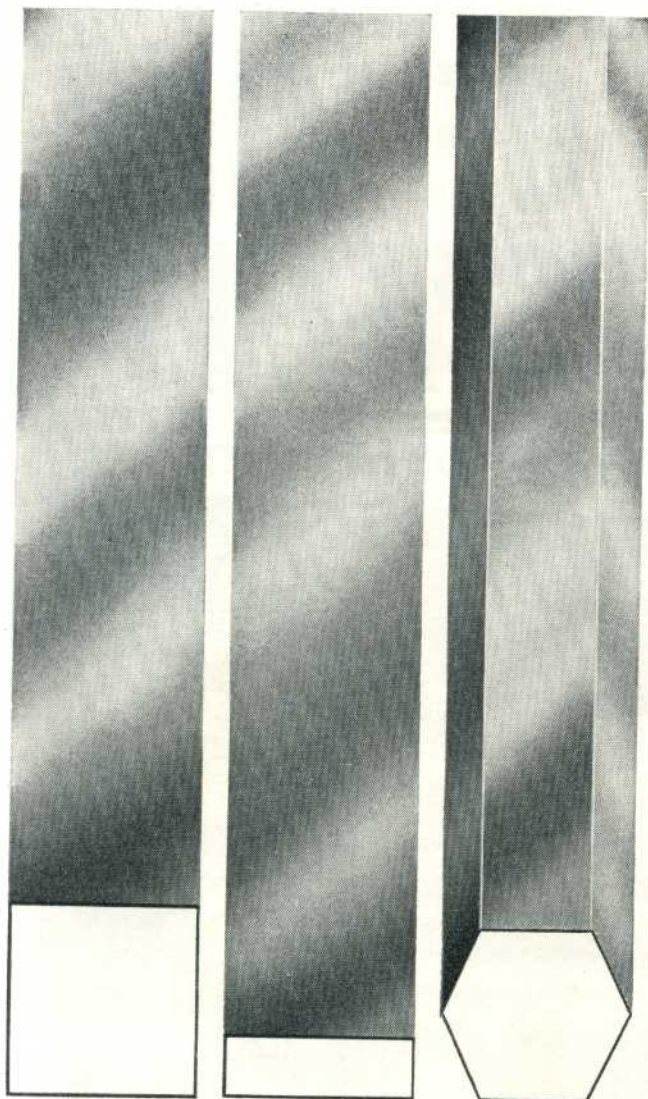
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