RALLY SPITFIRE

GIVEN THE WORKS | 3

AND SABRE SPRINT

by GEOFFREY HOWARD

Triumph Rally Spitfire

IF ever a car needed to be driven with ear-plugs, the Rally Spitfire is it. Outside it's not too bad (we sent someone else off round the block in it, so we could stand and listen) and it may just conform to the limit set in the regulations, but in there with it all is like a fiendish piece of Chinese torture.

Part of the trouble is the plastic coupé shell which resonates at every frequency there is in the whole of the rev range. At speed it's like travelling actually *inside* the silencer, with the noise coming in cyclic beats like in a ship's engine room or the power house of a generating plant. Then there's the vibration—that real teeth-rattling kind that hammers through the car and driver and reminds him of standing in the middle of a machine shop filled with automatic capstans punching out rivets.

A lot of the noise stems from the four unsilenced mouths of the twin-choke Weber carburettors, all gasping for air. Below about 4,000 r.p.m. they feel gagged and the car will barely pick up from low down. But once under way and pulling cleanly the revs soar to the safe limit for sustained running of 7,500 and even beyond.

At first one cannot believe that the engine is not going to fly to pieces. By cocking one's head to the left (instruments cannot be repositioned under Appendix J regulations, and the rev counter is nearly always masked by the steering-wheel) the needle can be seen spinning round the scale. At 5,000 it all feels pretty busy; a 6,000 it seems enough; at 7,000 we are gritting our teeth and trying hard to think of something else other than pistons and rods all over the road; and at 7,500 (phew! we made it) there is usually a higher gear and a moment of respite.

Of course, it never does burst and this Stage 2 Le Mans engine really is reliable. It's a pretty major rebuild of the production unit with special head and lots more besides. Max. power from only 1,147 c.c. is 105 b.h.p. at 7,250 r.p.m., so it's no wonder the torque curve peaks at 5,500 (86lb. ft.) with a great big hole until you get a foot on the step at 4,000.

Gearing is strictly for "special stages" with top running out at 105 m.p.h. and first much too high for quick getaways. This combination of intractability and high indirects makes the car a real pig in traffic, and we kept it out of London as much as possible. Standing-start acceleration times suffered from the same shortcomings and we needed a lot of practice before we could get the little brute off the line quickly without putting the flame out.

But above 20 m.p.h. or so it's quite a fireball provided one works hard on the gearlever to keep the revs up there in that amber sector where the punch is. The professionals, we are told, work on the narrow band from 5,000 to 7,500, playing it all by ear. Acceleration from rest to 80 m.p.h. is almost exactly half that of the last Spitfire we tested three years ago, but fuel consumption is double—sure proof you can't get something for nothing after all. There's a huge 18-gal tank with a filler the size of a milk churn which makes a petrol pump nozzle look quite ridiculous rattling in there on its own.

This car has a special "prototype" all-synchromesh gearbox with a very high first. It's a left-over from this year's Alpine when the works cars →

Left: Team-mate ADU 6B runs through northern France in last year's Monte Carlo Rally. We have been testing ADU 7B. Below: The little coupés look very pretty with their fast-back roofline. There is a powerful reversing lamp for "wrong slotting" and a signpost lamp on the roof

PERFORMANCE CHECK FOR RALLY SPITFIRE

Figures in brackets are for the Triumph Spitfire tested in *Autocar* of 16 November, 1962.

Acceleration times (mean): Speed range, gear ratios and time in seconds:

	Top		Third		Second		First	
m.p.h.	(4·55)	(4·11)	(5·71)	(5·74)	(8·09)	(8·88)	(11·28)	(15·42)
10—30	—	—	—	(8·8)	—	(5·1)	5·2	—
20—40	—	(13·5)	—	(8·4)	5·3	(5·2)	3·2	—
30—50	—	(13·6)	7·6	(8·1)	4·4	—	—	—
40—60	11·5	(13·7)	7·0	(9·5)	4·5	—	—	—
50—70	10·1	(15·8)	6·4	—	—	—	—	—
60—80	10·3	(19·6)	7·0	—	—	—	—	—
70—90	11·4	—	..	..	—	—	—	—
80—100	16·6	—	—	—	—	—	—	—

From rest through gears to:

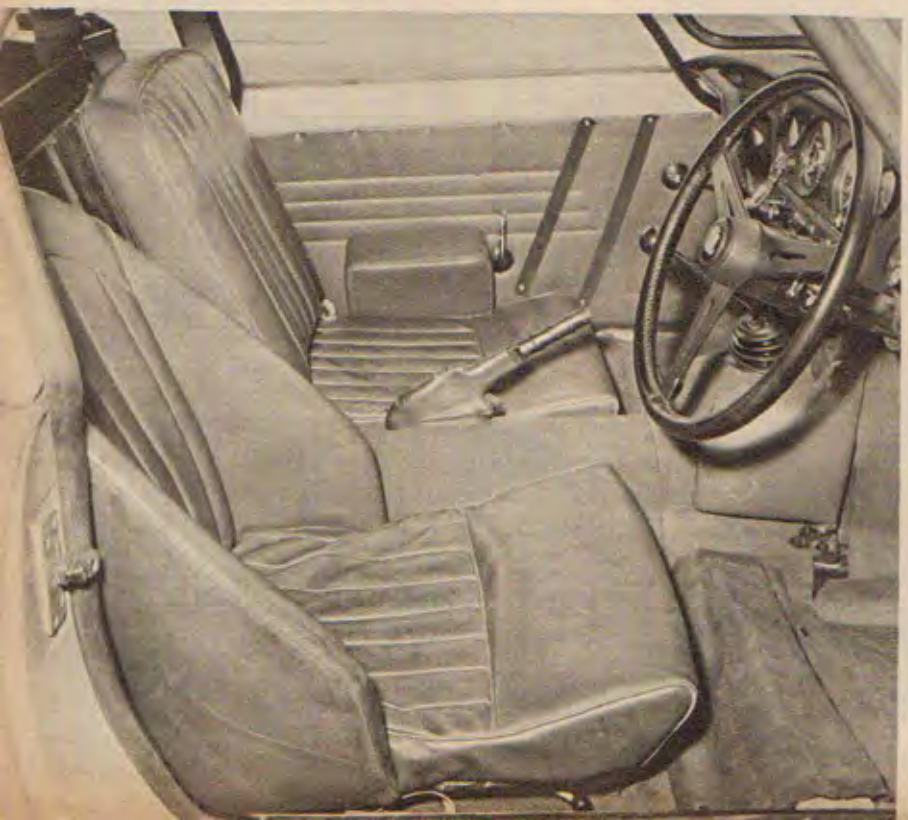
30 m.p.h.	4·1 sec.	(5·0 sec.)
40 ,,	5·8 ,,	(7·6 ,,)
50 ,,	7·9 ,,	(10·9 ,,)
60 ,,	10·3 ,,	(17·3 ,,)
70 ,,	13·8 ,,	(25·8 ,,)
80 ,,	18·0	(36·9 ,,)
90 ,,	23·6 ,,	(—,,)
100 ,,	33·9 ,,	(—,,)

Standing quarter-mile 17·8 sec. (20·9 sec.)

Maximum speeds in gears	m.p.h.		k.p.h.	
Top (mean):	105	(92)	169	(140)
(best):	105	(94)	169	(151)
3rd	90	(69)	145	(111)
2nd	64	(44)	103	(71)
1st	45	(25)	72	(40)

Overall fuel consumption for 352 miles: 15·3 m.p.g.; 18·5 litres/100 km. (31·2 m.p.g.; 9·2 litres/100 km.)

Triumph Rally Spitfire ...



ran with prototype 1300 engines. The rest is all homologated Group 2 stuff; low axle ratio, limited slip differential, large front brake calipers and TR4 rear drums, stiff springs and adjustable dampers, wide-rimmed wheels and Dunlop SP3 tyres. It was built last year for the Alpine and has competed since in the 1964 Tour de France, 1964 Geneva Rally, 1965 Monte and this year's Alpine. All the work's coupés have the same specification and a lot of bits get switched about. Cars with this registration number won their class last year in the Tour de France and Geneva, and came second in the class on this year's Monte. In fact the Spitfires have never been beaten by another G.T. car of similar engine size, only by Mini-Coopers which are rather different.

Inside the trim panels and rubber mats are all there, with some great Sorbo pads to protect the driver's knees. And all bright metal has been given the usual coat or two of matt black to kill reflections at night. There's a row of extra switches where the radio ought to go, to control the two cornering lamps and central spot lamp. The normal Spitfire selector works the four headlamp system—two long-range iodine vapour main beams and two feeble sealed-beam inners for meeting other traffic. To drive fast you need the main beams which sear through blackness like Goldfinger's laser. In daylight a long stalk flashes all four and sends other cars scuttling out of the fast lane like shot rabbits.

The driver has a wrap-round tub seat and the navigator a soft slab with adjustable backrest. There are elastic straps on the door for maps, a fire extinguisher and a cold-air blower for the screen that sounds like a slow (and painful) dentist's drill.

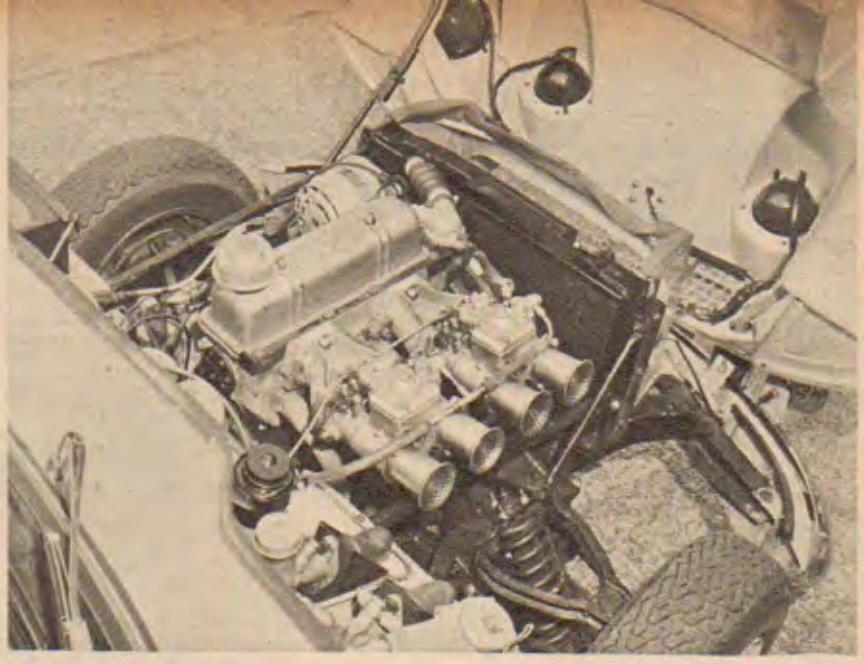
Starting is no problem with a rich mixture knob for the Webers (which needs to go back pretty early), but a wary eye must be kept on the oil pressure gauge for anything over 90 p.s.i. leads to sealing problems. If you can then drive out on the open road and get going all is well. If you're trying to beat the rush-hour home on a cold night you're going to suffer, for the heater's not there and you've got

Left : Driver and co-driver have individually shaped seats and there is padded protection from all sharp edges

Top left : The team lined up for last year's Monte. The right-hand car, AVC 654B, is the left-hand drive coupe driven by Simo Lampinen
Top right : Power-packed with energy, the little Spitfire engine looks smaller than the Weber carburettors

that "empty" torque curve at town speeds, remember?

To begin with the floor seems to be all pedals, because a double-sized brake pad (from a Triumph 2000 automatic) fills in between the clutch and accelerator. It takes a manly shove to get any stopping power (hard linings and no servo) so perhaps we're really meant to use two feet. Soon one forgets the strangeness and gets into the swing of things. Later one begins to like it in the same way as a cross-country run or a cold shower, for the exhilaration, the challenge, and—yes—the wonderful calm and relaxation of being warm by the fireside *afterwards*. Friends have to shout for the first hour or so until the buzzing in the ears stops, but who cares? We've been driving a racer.



Reliant Sabre Sprint

MORE than most of the other cars in this series, the Reliant Sabre Sprint has been built for just one purpose, to accelerate as quickly as possible. Gearing is therefor very low with max. revs in top giving no more than 100 m.p.h. For the standing-start quarter-mile this is practically the ideal, for the car crosses the line at 90 on a good run with an elapsed time of only 15·2sec.

This kind of figure is up in the Jaguar E-type class, and in fact the Sabre is quicker on initial getaway by quite a margin. Powered by a Zephyr 6 engine with Raymond Mays aluminium head and three 45 DCOE Weber carburettors, the Sabre has a strict rev limit of 6,000 r.p.m. with an estimated peak power of 175 b.h.p. At 100 m.p.h., therefore, that is the lot and on motorways it is very frustrating to be restricted so much.

Moving off from rest is pretty electrifying. At a steady 3,000 r.p.m. the clutch bites firmly and on dry concrete the wheels spin briefly as torque converters, helping the car catapult forwards. There is a tremendous surge at max. revs in first—from 30 to 40 m.p.h. takes less than ½sec, before the close-ratio second takes hold with only a fractional drop, and on to third and top. A ZF all-synchromesh box gives maxima very evenly spaced at 40, 58, and 81 m.p.h. in the indirects with faultless changes in between as fast as the hand can snatch the lever.

And all the time there's that smooth scream of a tuned six in the cars, rising and falling, but always →

Above: Works Reliant Sabre painted dark blue with non-standard grille bars and lightened bodywork

Below: The Zephyr engine has three Webers, an oil cooler up front and a cross-flow radiator. The brake servo can be seen behind the near-side suspension