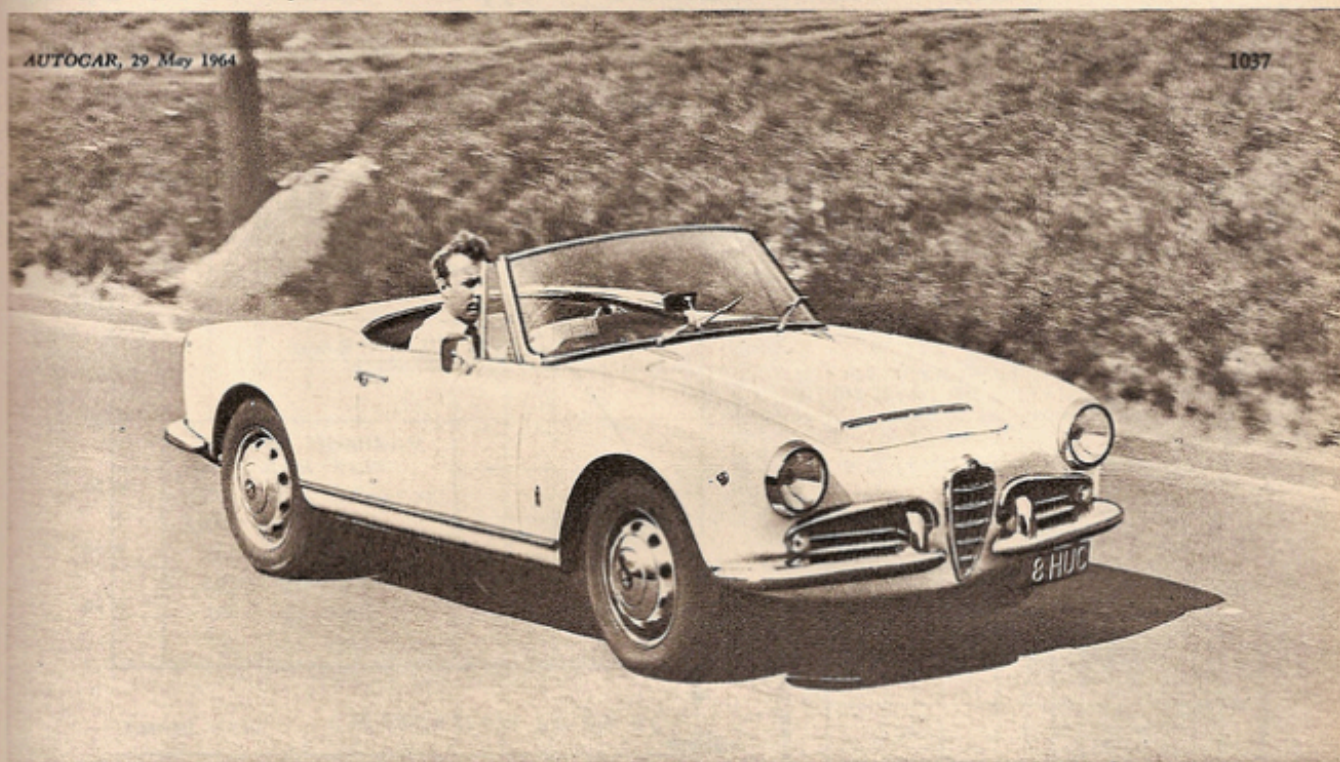


AUTOCAR, 29 May 1964

1037



Alfa Romeo Giulia Spider 1,570 c.c.

EVERY once in a while the motoring journalist finds himself behind the wheel of a car which is very clearly different from the usual gamut of familiar models. Most designers work to a set of criteria often dictated by the hierarchy within their particular organization, and very few have a free hand to create something that will give pleasure above all else to the eventual owner. Almost as soon as one gets in and shuts the door of the little Giulia Spider it is clear that this Alfa Romeo, even more than the other three we have tested, was built for just this purpose.

After the first mile or two, the impression is fully confirmed and surprisingly quickly one feels at-one with the whole car, enjoying every minute on the road. This effect is largely due to the long and distinguished competition background of both the marque and model, plus perhaps a trace of the Italian temperament and knack for having fun.

In a way, the Giulia Spider is an amalgam of two models. The body structure is much the same as on the Giulietta Spider for several years, but from July 1962 the larger, Giulia 1600 engine has been fitted; and our test car had the optional disc front brakes. As in all Alfa models the engine is a very sweet unit with twin overhead camshafts, chain driven, and wet cylinder liners in an aluminium block and crankcase, with an aluminium cylinder head as well. The Giulia is a 1,570 c.c. four, with five main bearings, developing 92 b.h.p. net at 6,200 r.p.m. Like the six-cylinder 2600, it is mated to a superb all-synchromesh, five-speed gearbox.

One might expect this recipe to produce something of an intractable competition car—not too suitable for ordinary day-to-day use. The opposite could hardly be more true, for the Giulia will pull away from as low as 15 m.p.h. in its geared up fifth ratio and it never so much as coughed in

disapproval when repeatedly run well into the red zone on the rev counter during performance testing.

As first tested the car could not quite achieve its claimed maximum speed, and had to be returned to the U.K. concessionaires for adjustment before we recorded our mean maximum of 107 m.p.h.—a figure we knew it to be capable of.

In racing tune, what is basically the same engine can develop as much as 160 b.h.p., so in production form the components are far from highly stressed. It idles so quietly that one may sometimes think the engine has stalled—something the Alfa people thought of, because there is a lock to prevent the starter solenoid being operated a second time unless the ignition is first switched off. Even the exhaust is extremely restrained, so one can use high revs in towns without any fear of attracting attention.

On the open road the car really comes into its own. With very little impression of being hurried, and without much effort from the driver, the miles can be gobbled up—as many as 45 or 50 in each hour on British trunk roads. At first, with such a flexible engine, one wonders what to do

PRICES	£	s	d
Giulia 1600 Spider	1,155	0	0
Purchase Tax	241	3	9
Total (in G.B.)	1,396	3	9

Extras (inc. P.T.)			
Hard Top	(approx.)	75	0 0
Disc brakes in front			optional—no extra cost

Autocar road test • No. 1976

Make • ALFA ROMEO Type • Giulia 1600 Spider

(Front engine, rear wheel-drive)

Manufacturer: Alfa Romeo, Milan, Italy: Alfa Romeo (Great Britain) Ltd., 164, Sloane Street, London, S.W.1.

Test Conditions

Weather Dry, overcast with 15-20 m.p.h. wind
 Temperature 12 deg. C. (54 deg. F.)
 Barometer 29.25in. Hg.
 Dry tarmac and concrete surfaces.

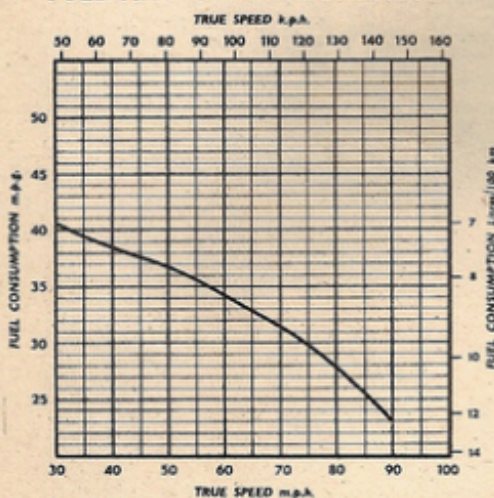
Weight

Kerb weight (with oil, water and half-full fuel tank)
 18.5cwt (2,065lb-938.6kg)
 Front-rear distribution, per cent F. 57; R. 43
 Laden as tested 21.5cwt (2,401lb-1,090.9kg)

Turning Circles

Between kerbs L. 34ft 5in.; R. 32ft 11in.
 Between walls L. 36ft 1in.; R. 34ft 7in.
 Turns of steering wheel lock to lock 2-6

FUEL AND OIL CONSUMPTION



FUEL Super Premium Grade (101 octane RM)

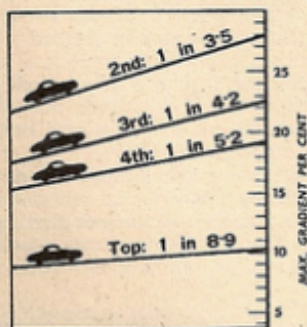
Test Distance 1,497 miles

Overall Consumption 28.5 m.p.g. (9.9 litres/100 km.)

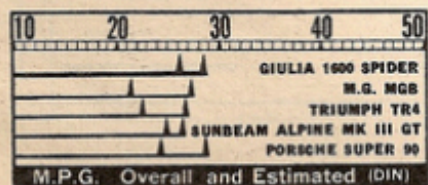
Estimated Consumption (DIN) 28.7 m.p.g. (9.8 litres/100 km.)

OIL: SAE 40 Consumption 3,000 m.p.g.

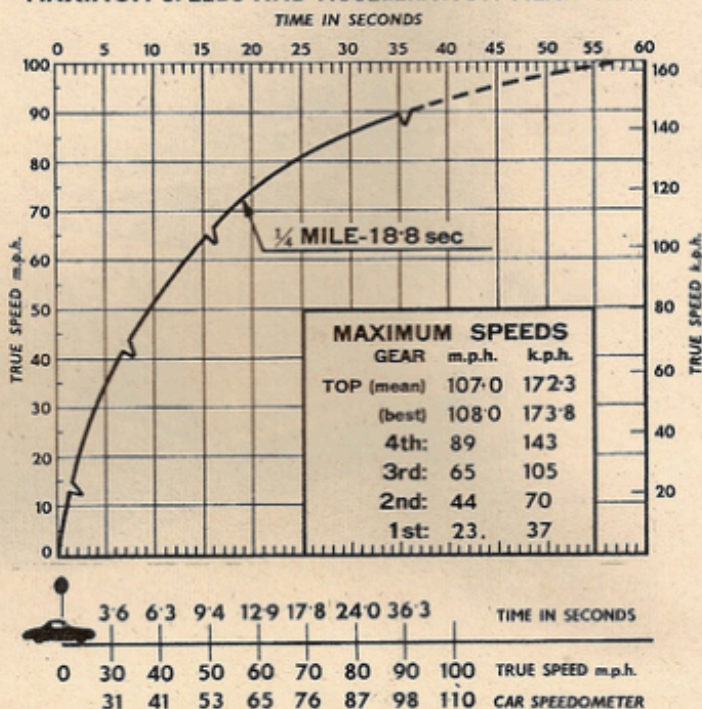
HILL CLIMBING AT STEADY SPEEDS



GEAR PULL (lb per ton)	Top	4th	3rd	2nd
	250	420	510	625



MAXIMUM SPEEDS AND ACCELERATION MEAN TIMES



GEAR	m.p.h.	k.p.h.
TOP (mean)	107.0	172.3
(best)	108.0	173.8
4th:	89	143
3rd:	65	105
2nd:	44	70
1st:	23	37

Speed range, overall gear ratios and time in seconds

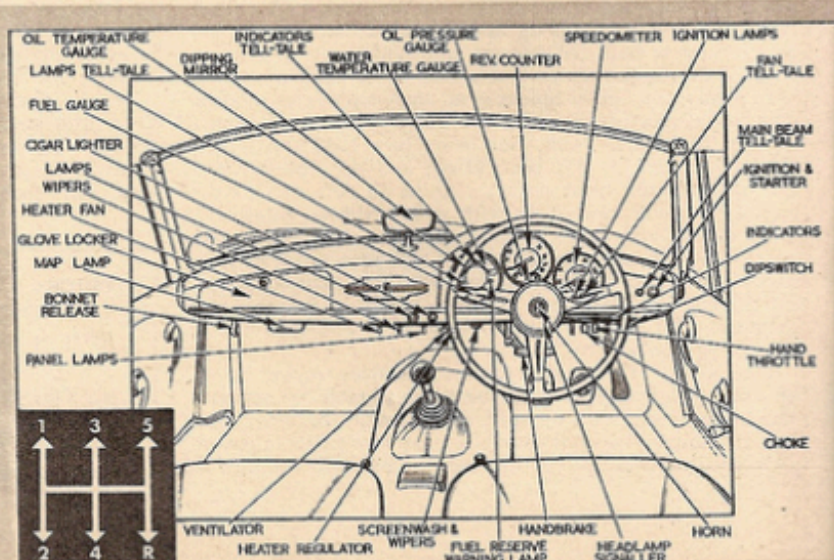
m.p.h.	Top (4.05)	Fourth (5.12)	Third (6.94)	Second (10.19)	First (16.93)
10-30	—	8.8	5.7	3.8	—
20-40	10.6	7.5	5.5	4.0	—
30-50	11.7	7.7	5.6	—	—
40-60	11.6	8.1	6.6	—	—
50-70	13.2	9.5	—	—	—
60-80	14.4	12.1	—	—	—
70-90	21.0	—	—	—	—

BRAKES

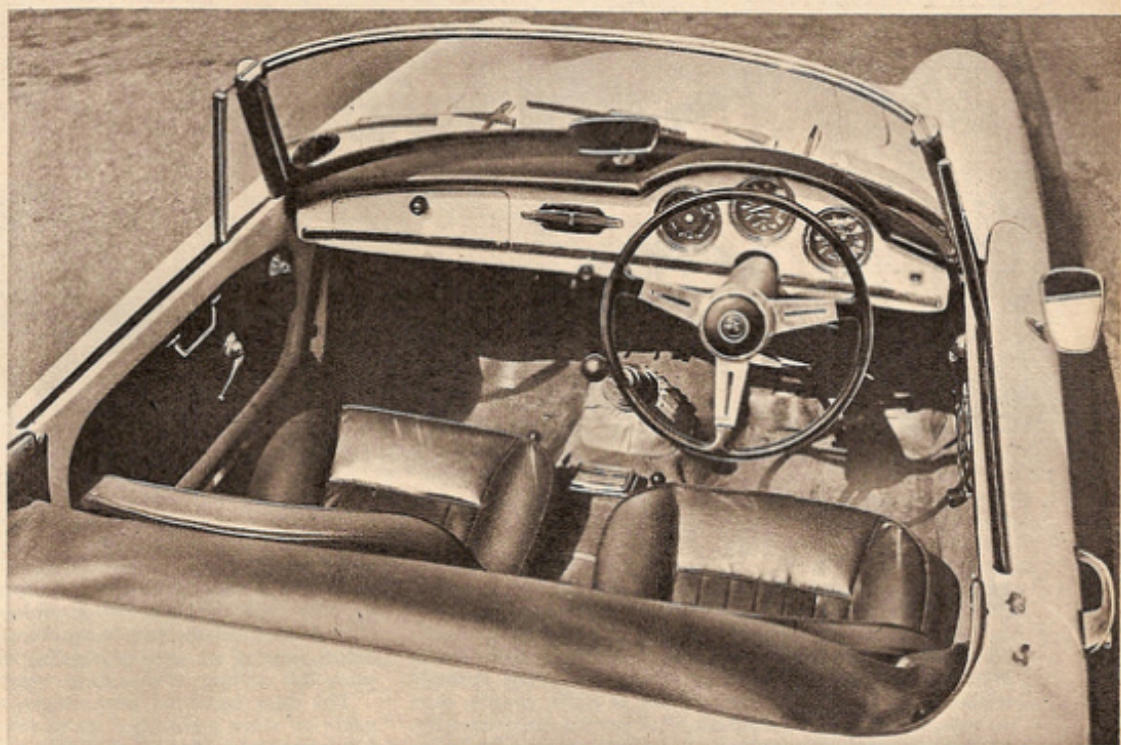
	Pedal Load	Retardation	Equiv. distance
(from 30 m.p.h. in neutral)	25lb	0.17g	176ft
	50lb	0.46g	65ft
	75lb	0.86g	35ft
	100lb	0.89g	33.8ft
	110lb	0.93g	32.4ft
Handbrake		0.25g	120ft

CLUTCH

Pedal load and travel—33lb and 5in.



Open air motoring with rigid, wind-up side windows to keep out draughts and a cockpit layout inherited from generations of competition cars. Though the wheel is slightly offset to the left, one is unaware of it



with so many gears, but the spacing is such that there is always one which seems just right for any road situation.

First is very low; low enough to move the car off from a 1-in-3 gradient with hardly any clutch slip, and for the clutch normally to be let in smoothly with no increase in revs from idling speed. Second and third, too, are rather low, leaving a wide gap before fourth (direct) with its 90-m.p.h. maximum, but this spacing seems well suited to European road conditions, at least. During our performance testing in the dry, we were able to spin the wheels during fierce getaways in first, with enough clutch "bite" when changing to second for the tyres again to howl momentarily. We found it best to use 6,800 r.p.m. as a maximum against the stopwatch, but for everyday use the makers suggest a more modest limit of 6,000.

Alfa Tradition

Faultless synchromesh stood up well to the most demanding snatch changes, and offered no heavy resistance to lever movements. Characteristically Alfa, the very robust lever looks long for a sports car, but it comes handily close to the wheel and works with a positive and very smooth short movement. The first four gears are in the conventional H-pattern gate, with fifth and reverse in an extra plane to the right. There is strong spring-loading towards the central, third-fourth position which helps considerably when trying to find the appropriate "slot" in a hurry. In fact, one learns to master the layout very quickly although the idea of moving across the gate again from fourth to fifth feels strange initially. Reverse is very positively guarded by a telescopic-spring catch in the lever itself. Trying to back up a slight gradient caused the axle to "wind up" with a judder.

In terms of handling and suspension, this Alfa was if anything better than the other models we have driven in

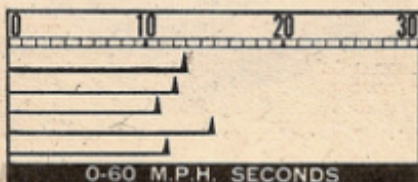
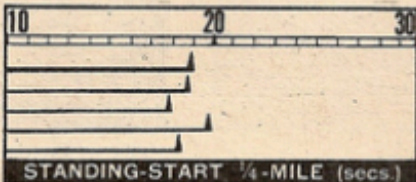
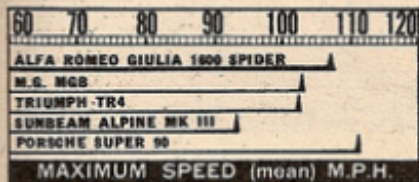
their range. The springing is soft, with large wheel movements and therefore a good deal of roll on corners. Over rough road patches or even long-pitch undulations the little car rides level, with a kind of gentle galloping action vaguely discernible somewhere underneath. There is some of the usual harshness associated with braced-tread tyres from the Pirelli Cinturatos at slow speeds, but their excellent gripping powers, particularly in the wet, and their quiet running more than make up for this.

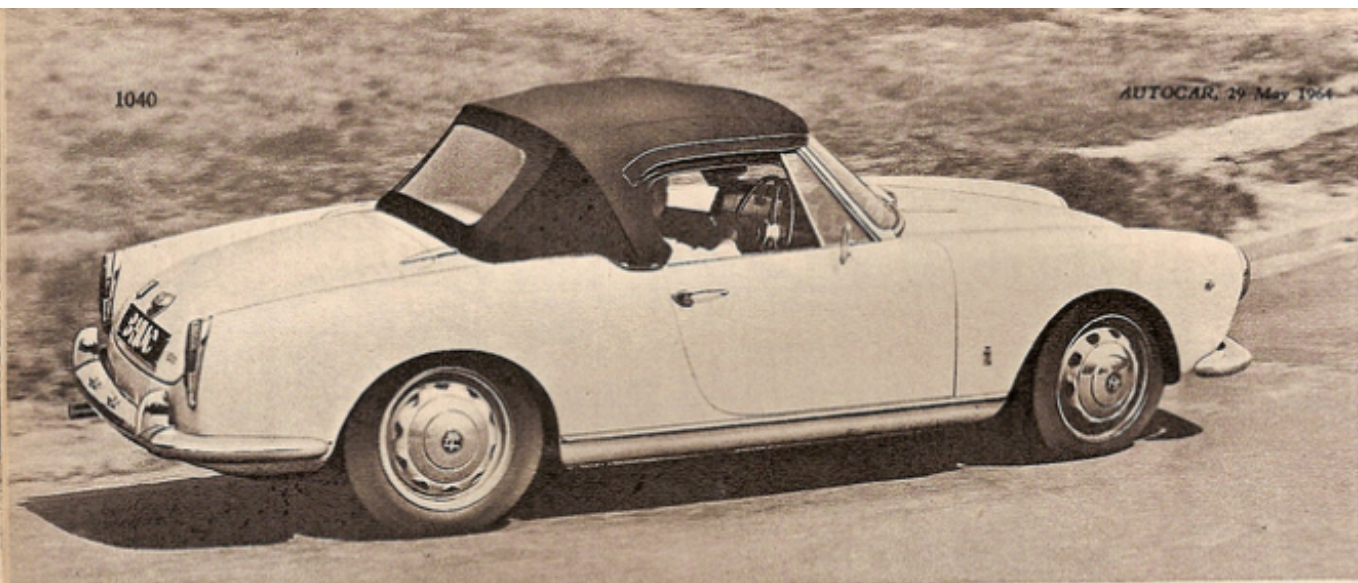
Cornered fast, the Giulia Spider is a driver's dream. One can set the car up for a corner early with a positive degree of roll oversteer, and then sit back and let it hold its chosen line all the way through. Even the supreme test of a sudden change in direction halfway through—a *chicane* type of bend—caused no instability, and at all times the car felt well balanced and fully under control. When the limit of adhesion is reached the tail slides out with a deep howl from the tyres, but this is not sudden and can be corrected quickly with opposite lock. Although normally the body roll gives good feel of the cornering forces, one needs to push well back into the seat to avoid being thrown about, and more curvature of the backrests would be preferred.

Directional stability of the car is quite outstanding at speed. Even in a strong blustery cross-wind at about 100 m.p.h. one could take one's hands off the wheel—the car itself correcting any slight deviations from the straight, and keeping a dead true course. Although the steering is high-geared—2½ turns lock-to-lock on a very compact turning circle—it is light even when manoeuvring in the car park. At speed it is beautifully accurate and one can place the car to a hair's breadth.

The traditional Alfa brake drums, of huge dimensions and with aluminium helical finning, are retained only on

How the Alfa Romeo Giulia Spider compares :





The hood fits beautifully and produces closed-car comfort. A hard top is also available

Alfa Romeo Giulia Spider . . .

the back of the road test car, large diameter discs being fitted at the front. This is an option we would strongly advocate, for they had plenty of feel at traffic speeds, gave no indications of fade (although after several hundred miles of hard use the front wheel rims were covered in lining dust), and were completely unaffected by torrential down-pours. In contrast the handbrake has an awkwardly placed umbrella-type handle under the dashboard, and was only just able to meet the Ministry of Transport test requirement of 0.25g—when pulled very hard with both hands. It would not hold the car facing up or down a 1-in-4 test gradient.

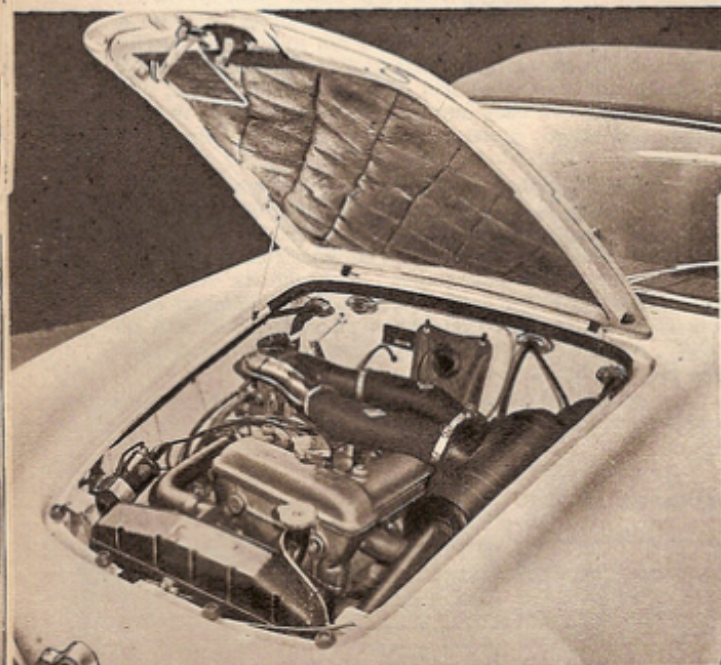
As one has come to expect of a Pininfarina-built body the quality of finish is high, and for an open two-seater it is surprisingly rigid over Belgian-type *pavé*. We had a little trouble with the boot catch, and had to remove some of the rubber sealing before it could be opened without

perilously bending the key. A similar car tried in Italy recently had the opposite trouble—difficulty in shutting the lid. The test car was finished in brilliant white cellulose which showed no signs of staining when washed clean after some fast driving in very dirty weather.

The duck hood fits very snugly, and there was no flap, rattle or water leaks right up to the car's maximum speed. Lowering the roof is a little fiddly, since it involves releasing spring catches each side, and insinuating the rigid frame into the well behind the seats, but it does stow away completely out of sight. Luckily it can be put up more quickly (about a minute) and the latest examples are said to have a neater and simpler mechanism.

Apart from the need for more sideways location already mentioned, the seats are extremely comfortable—a lot softer than they look. Even after a day at the wheel, one can climb out with no trace of stiffness or aching muscles. The windscreen is curved round to bring the slim pillars well back out of the driver's field of view. Both front wings can be seen, despite the low-mounted mirror on top of the

Left: The twin-o.h.c. engine is smartly finished in "hammered" silver enamel and was completely free of oil leaks during the test period. Air is ducted from an intake at the front, via a silencer and cleaner across the engine to the Solex carburettor—two pipes being used merely to keep down the height. Right: The boot is reasonably large for the needs of two people. Spare wheel stowage is behind the seats, so that luggage does not have to be disturbed if a wheel change is necessary. Tools stow to the left, opposite the battery



scuttle, so that one soon gets used to judging the car's width accurately in traffic.

With the roof up, tall drivers find themselves a bit short of head room, and rearward vision is not all it might be—the framed interior mirror being a bit too small. An additional outside mirror is standard, mounted well back on the driver's door, and this gives a wrap-round view behind the car.

The seats slide downhill as they move back on their runners, and the angle of the tilting backrests can be altered with a screwdriver. Clutch and brake pedals are pivoted below the sloping floor, and move upwards as they are pressed, so that one's feet tend to ride up the pads, especially in the case of the clutch; this needed to be thrown right out for a silent gear change. The passenger has a rubber-covered cross-bar to brace his feet against.

Tucked away high up to the driver's left is a toe-operated pedal which squirts the washers and starts the wipers independently of the main switch. Generally this works well, but it can be difficult sometimes to get sufficient water on to the glass when it is not raining to prevent the wipers scratching through the dirt. Even at top speed the blades stayed in close contact with the screen.

Standard Alfa practice (in common with Lancia, too) is to arrange for two concentric buttons in the steering-wheel boss to sound the horns and flash the headlamps. In a real emergency one can simply cover the boss with the palm of either hand to sound and signal a double warning. There are the extra Italian tell-tales for sidelamps and

heater fan, which is inaudible. Flaps for directing all the air on to the screen for maximum demisting, or to the occupants' feet, are out of reach of the driver under the left of the dashboard. Temperature and air flow controls match the twin tab levers for slow running and choke each side of the steering column. Once the right degree of choke and throttle are determined, cold starts are instant and the engine will deliver smooth pulling power right away.

At night, the headlamps have ample reach and spread for fast driving on open roads, but the dipped beams are somewhat restrictive by comparison. The instrument lighting seems a trifle too bright and there is no rheostat for dimming. Over the passenger's knees is a little map-reading lamp with an eyelid shutter that switches it on as it is opened. The cubby-hole can be locked, a welcome security measure for an open car.

Like all Alfas, this Giulia Spider is particularly a driver's car. The satisfaction of owning a piece of quality machinery that always responds to its master's touch in just the way he wants, as and when he wants, is a rare enjoyment. These characteristics are so strong in the Giulia that they can be sensed even by a passenger without mechanical knowledge or driving experience, who may embark on the feeling of security and relaxation that the car imparts. Every mile endears one more to this little "toy"; yet it is a very serious motor car that is above average in its finish and detail equipment, and functions so efficiently that only a stopwatch shows up just how good the performance really is.

Specification: Alfa Romeo Giulia Spider

PERFORMANCE DATA

Top gear m.p.h. per 1,000 r.p.m.	16.9
Mean piston speed at max. power.....	3,335ft./min.
Engine revs. at mean max. speed.....	5,850 r.p.m.
B.h.p. per ton laden	86

ENGINE (front mounted, water cooled)

Cylinders ...	4-in-line
Bore ...	78mm (3.07in.)
Stroke ...	82mm (3.23in.)
Displacement ...	1,570 c.c. (95.7 cu. in.)
Valve gear ...	Twin-overhead camshafts
Compression ratio ...	9.0 to 1
Carburettor ...	Solex 32PAIAS
Fuel pump ...	Mechanical diaphragm-type
Oil filter ...	Full-flow, renewable element, with by-pass
Max. power ...	92 b.h.p. (net) at 6,200 r.p.m.
Max. torque ...	108 lb. ft. at 3,700 r.p.m.

TRANSMISSION

Clutch ...	Single dry plate 8in. dia.
Gearbox ...	5-speed, all synchromesh, central control
Overall ratios ...	Top 4-05, Fourth 5-12, Third 6-94, Second 10-19, First 16-93, Reverse 15-43
Final drive ...	Hypoid bevel 5-12 to 1

CHASSIS

Construction ... Integral, steel body

SUSPENSION

Front ...	Independent, wishbones and coil springs, telescopic dampers, anti-roll bar
Rear ...	Live axle, coil springs, trailing arms, telescopic dampers, A-bracket
Steering ...	Worm and roller
Wheel dia. ...	15.5in.

BRAKES

Type ...	Girling hydraulic; finned aluminium drums with leading-and-trailing shoes rear; three-leading shoe front, with discs optional
Dimensions ...	F, 10.65in. dia. disc, R, 10.5in. dia., 1.75in. wide shoes.
Swept area ...	F, 232 sq. in.; R, 116 sq. in. Total: 348 sq. in. (325 sq. in. per ton laden)

WHEELS

Type ...	Pressed steel disc, 4 studs. 4.5in. wide rim
Tyres ...	155-15in.

EQUIPMENT

Battery ...	12-volt 50-amp. hr.
Headlamps ...	40-45 watt
Reversing lamp ...	2 standard
Electric fuses ...	8
Screen wipers ...	Single speed, self-parking
Screen washer ...	Standard, pedal plunger
Interior heater ...	Standard, fresh air
Safety belts ...	Extra; anchorage provided

Interior trim ...	P.v.c.
Floor covering ...	Pile carpets and rubber mats
Starting handle ...	No provision
Jack ...	Pillar type
Jacking points ...	Two each side
Other bodies ...	None

MAINTENANCE

Fuel tank ...	11.7 imp. gallons (no reserve)
Cooling system ...	13 pints (including heater)
Engine sump ...	11 pints SAE 40. Change oil every 2,500 miles; change filter element every 2,500 miles

Gearbox and over-drive ...	32 pints SAE 90. Change oil every 7,500 miles
Final drive ...	2.5 pints SAE 90 EP. Change oil every 7,500 miles
Grease ...	16 points every 2,500 miles
Tyre pressures ...	F, 22.7; R, 24.1 p.s.i. (normal driving). F, 24.1; R, 25.6 p.s.i. (fast driving). F, 28.4; R, 29.8 p.s.i. (competition driving)

▼ Scale: 0.3in. to 1ft. Cushions uncompressed.

