Alfa Romeo 1300 Junior

Spider/GTA/GT

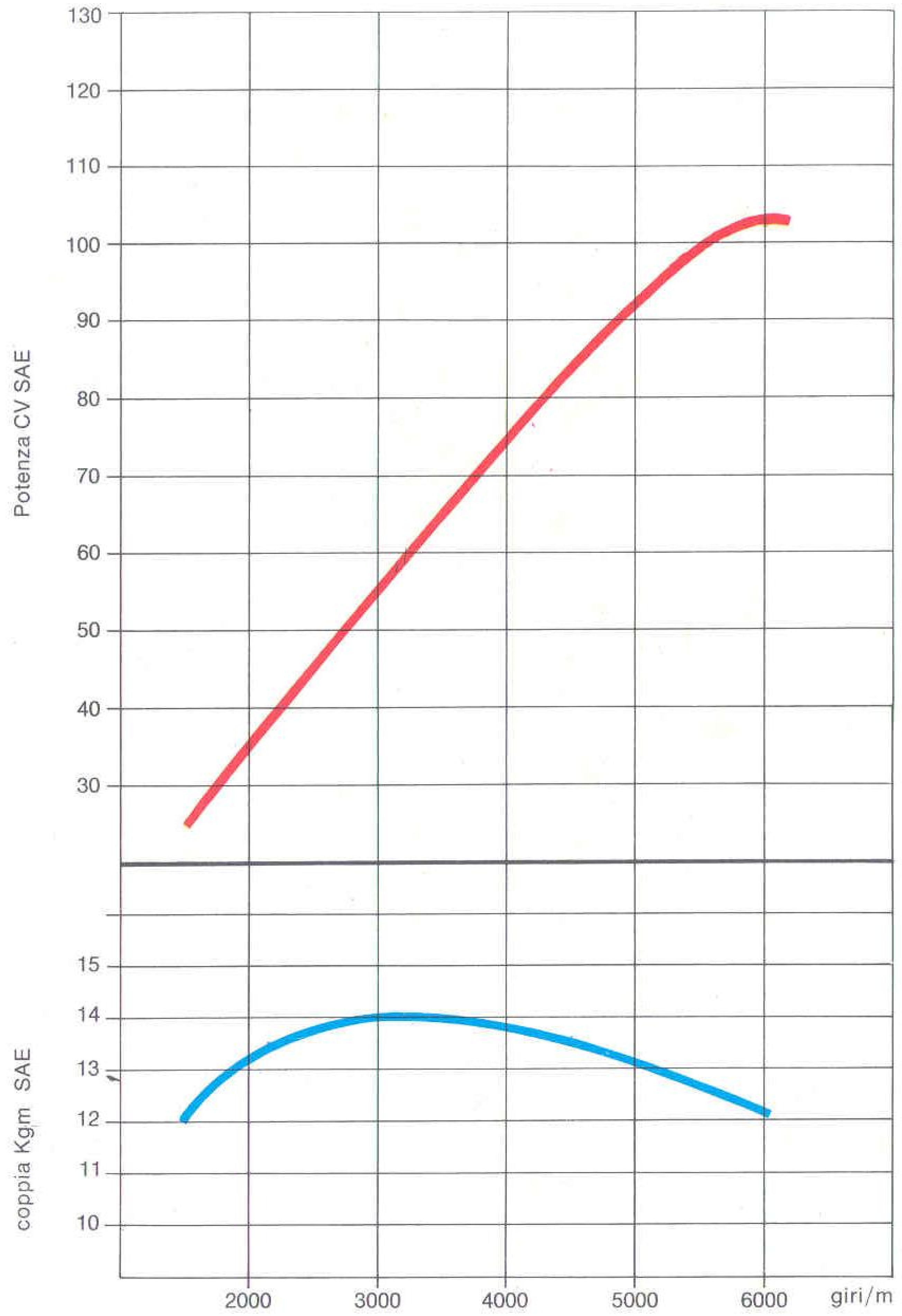
Three sports cars for twenty-year olds of all ages

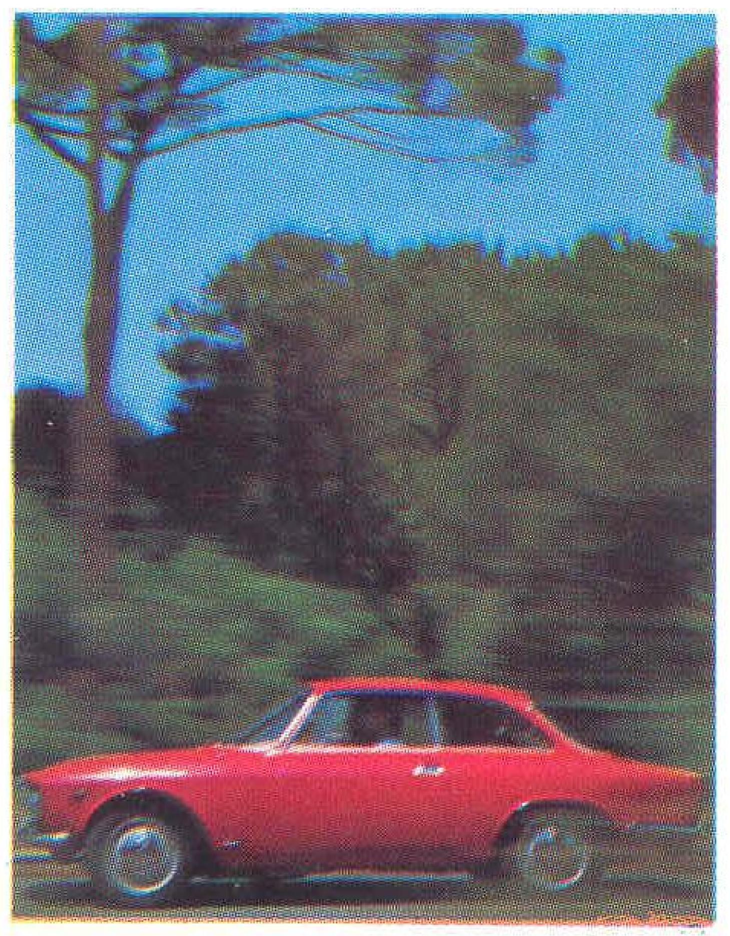
1300 GT Junior, Spider 1300 Junior, GTA 1300 Junior:
three 1300 cc sports cars designed for fast touring, pleasure motoring and competition work. Three new cars with features that distinguish them from others of the same cubic capacity and at the same time giving greater economy and efficiency.
Three cars with fabulous performance but based on Alfa Romeo's indisputable quality: safety. Now the technical innovations that, when first introduced in the 1750's, played so important a role in achieving their success, are built-in to the 1300's too.

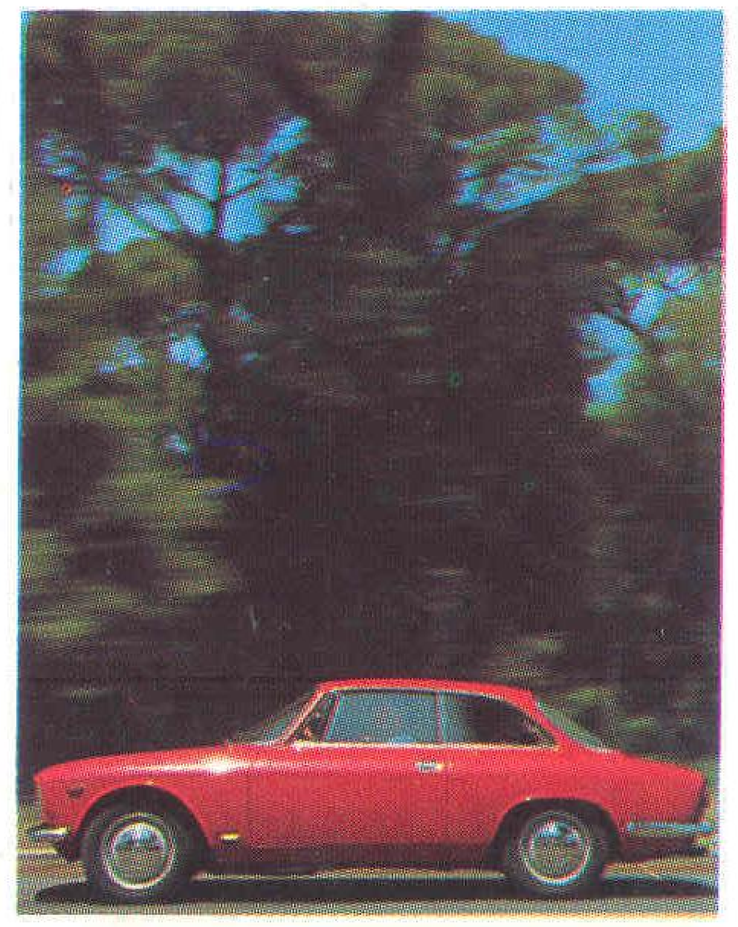

Giri x 100
Kg/cm²
Km/ora
RISCALD.
GENERAT.
START
ACCEL
BENZINA

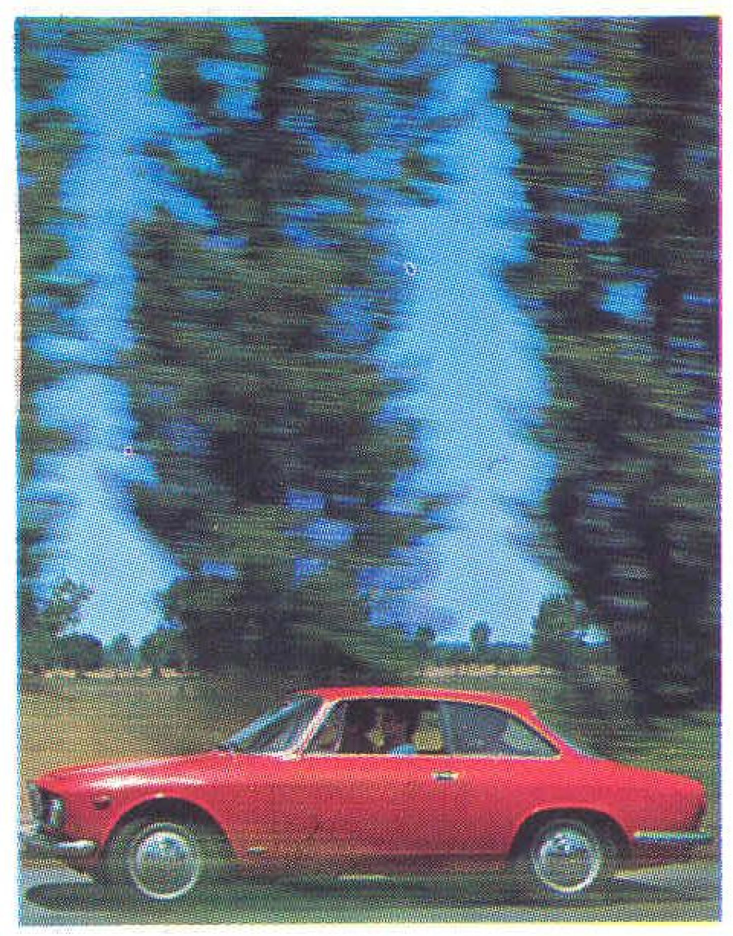
In the GT Junior both the maximum power (103 HP-SAE) and the power achieved at any engine speed are outstanding: see red line. For example, at 4600 rpm the GT Junior travels at 83 mph: an acceptably high cruising speed, and yet, the GT Junior is only using 50% of its engine power, leaving the balance available for acceleration. The blue line gives the changes in torque when compared to the changes in engine speed. At 1800 rpm the engine attains such a high torque that it permits maximum acceleration. This can be maintained up to 6000 rpm.

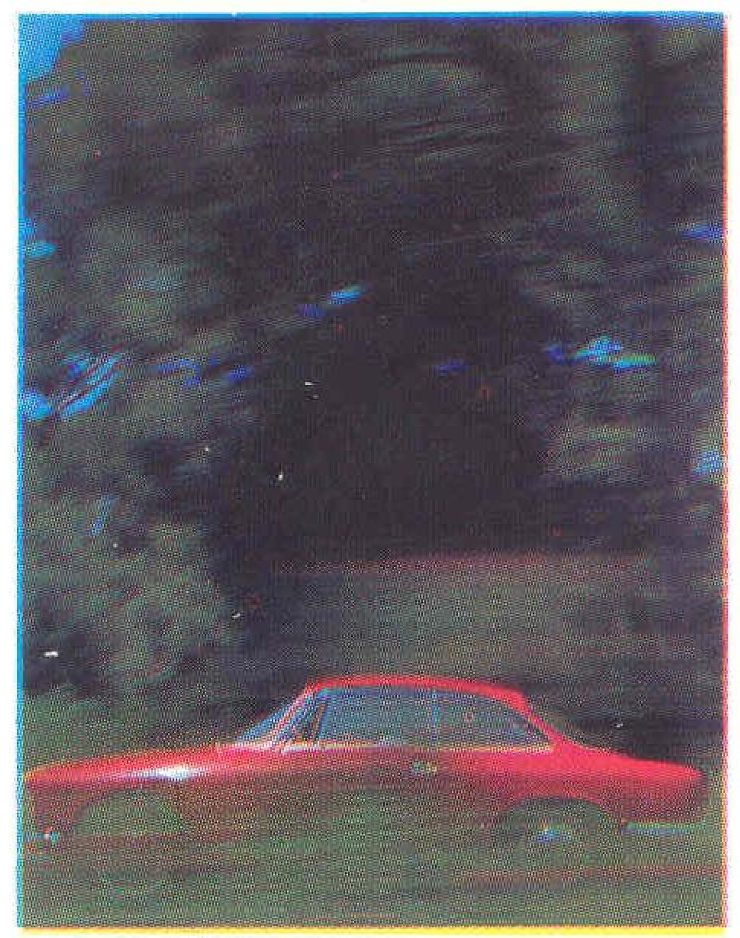
There is something special and unique, in every Alfa Romeo which undoubtedly derives from the con-











tinual and methodic application, to touring cars, of ideas developed from those used in racing cars. The GT Junior, with its 103 HP-SAE and maximum speed of over 105 mph effortlessly obtained from its 1300 cc engine, is the most obvious example: the characteristics of the car are all developed from racing experience:

- Engine designed to develop the maximum specific power (hemi-spherical combustion chambers, valves operated by twin overhead camshafts). Engine unit in light alloy. Sodium-cooled outlet valves.
- Inlet and exhaust systems designed to ensure maximum combustion efficiency.
- Two twin-choke carburettors.
- Layout and characteristics of the steering.
- Gearbox (5 speeds) all synchronised.
- Driving position and layout of controls.

- Body design (in particular the "cut off" rear end).
- Lighter rear axle; differential casing in light alloy.
- Servo assisted disc brake system.
- Optional tyre equipment: 165 SR 14

These features are not displayed only in terms of pure speed, but high performance attained through normal engine speed and under the safest conditions. These are really unique technical facts of the GT Junior as well as all other Alfa Romeos.

Normal engine speed. Among all the cars of the same engine capacity, the GT Junior has, at any speed, the greatest margin between developed and available power.
For example, even at 90 mph the engine speed is the same as an average car: only 4950 rpm. This gives a very high cruising speed with reduced fuel consumption and no worries about engine wear. It also means complete engine relia-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bility, both when driving at slow speed on crowded roads or high speeds during long motorway journeys.

Road-holding is a typical strong point of Alfa Romeo, based on distribution of load, adjustment of suspension, and on a number of other technical details developed through years of sporting activities. The new version has anti-roll bars — previously fitted only to the 1750 GT Veloce — at front and rear. The stability of the car is ensured at any speed and on any type of road. It is easy to handle and quick to respond: it is always ready to correct itself and remain under control in all conditions. This is why Alfa enthusiasts are so keen on their cars.

Braking power is another universally acknowledged Alfa virtue. The new version of the GT Junior has servo-assisted disc brakes plus a braking power regulator acting on the rear wheels, irrespective of the load, and in proportion to the pressure applied at the pedal.
When braking sharply or on a slippery road, the regulator keeps the car on course. Braking power, progressiveness and anti-fade are due to the large diameter discs (10½"). The total effective braking area is 351.6 sq. ins.

Another important safety feature is that the hand-brake is independent and acts on separate drums on the rear wheels.
Naturally, with such power and so many advanced features, the GT Junior has to be of exceptionally sturdy construction.
Mechanical components are of enlarged dimension, the structure of the bodywork is braced with reinforced cross-members, the suspension is designed to resist stress when cornering at high speed or when braking with sudden violence. It is also of interest to know that the passenger compartment is a highly strengthened section differing in its shock absorbing qualities from the engine compartment and boot which are designed to absorb impact, the former being extremely rigid to ensure maximum protection on impact.
The ordeal of sporting events and the "stress" tests carried out in the laboratory and on the Balocco test tracks are a guarantee for every GT Junior leaving the assembly line.

Comfort. In this respect the GT Junior is a completely new car mainly due to the extensive sound-deadening. The passenger compartment in the new version is insulated with a sound-absorbing pad


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enveloping it from instrument panel to boot. It is ¾" thick at the vital points. Engine noise is excluded at gearbox level by the use of new flexible mounts. At the level of the clutch a new hydraulical control has been adopted.
Finally any movement in the rear suspension is now absorbed by the new flexible anchorages. In total these improvements produce a 70% reduction in noise transmission compared with the preceding version. Listening to the radio or talking is usually easy in a saloon — but a difficult problem in a sports car. The problem has been solved.
The front seats are fully adjustable and the height of the driver's seat can be modified by placing or removing shims under the seat slides. It permits driving with both arms fully extended and natural action on the pedals and the gear lever. The adjustable back-rest is of the same bucket - type design as the seat and supports the driver completely when cornering even at high speeds.
The rear seats in the GT Junior are of exceptional size for a 1300 cc coupé. The finish completely matches the elegance of the car. The recessed dashboard contains all the instruments in easy-to-read and easy-to-reach positions: an important safety factor at high speed. The two speed windscreen wipers are operated by a hand or foot control; the steering wheel is of ultra-modern and very simple design and incorporates, in the spokes, buttons for operating the horn.

The new GT Junior has a anti-thief steering lock and a cigar lighter. The heating and ventilation equipment has been improved by the fitment of a new air mixing system and a two-speed fan.


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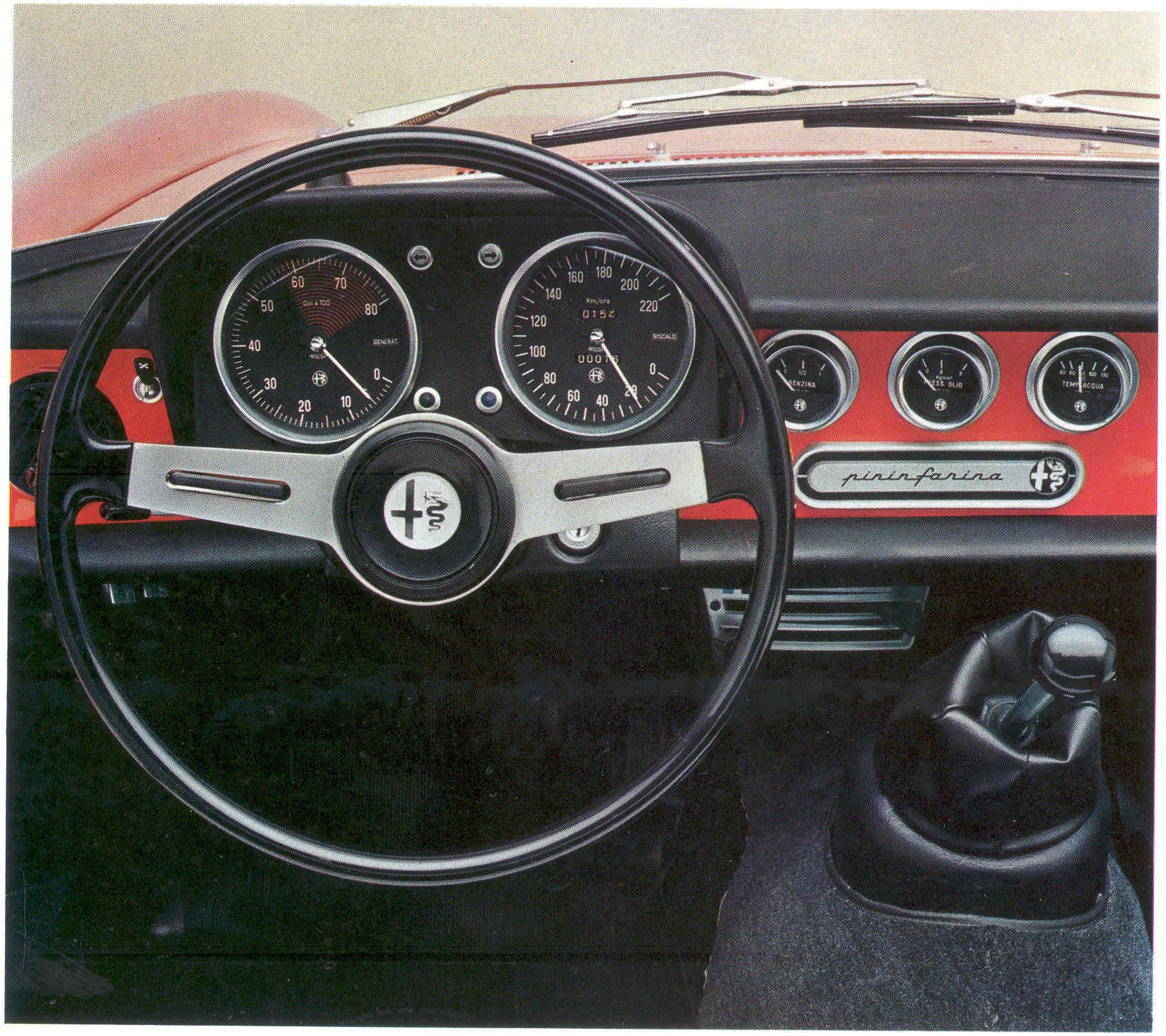
Spider 1300 Junior

Looks. The Spider 1300 Junior has the same line already set by the Spider 1600 and followed by the Spider 1750. It is an « Italian » design, restrained and perfect: a miracle of elegance, aerodynamics and roominess. The exterior is one continuous series of curves reducing wind resistance and contributing to improved road-holding especially at high speeds.



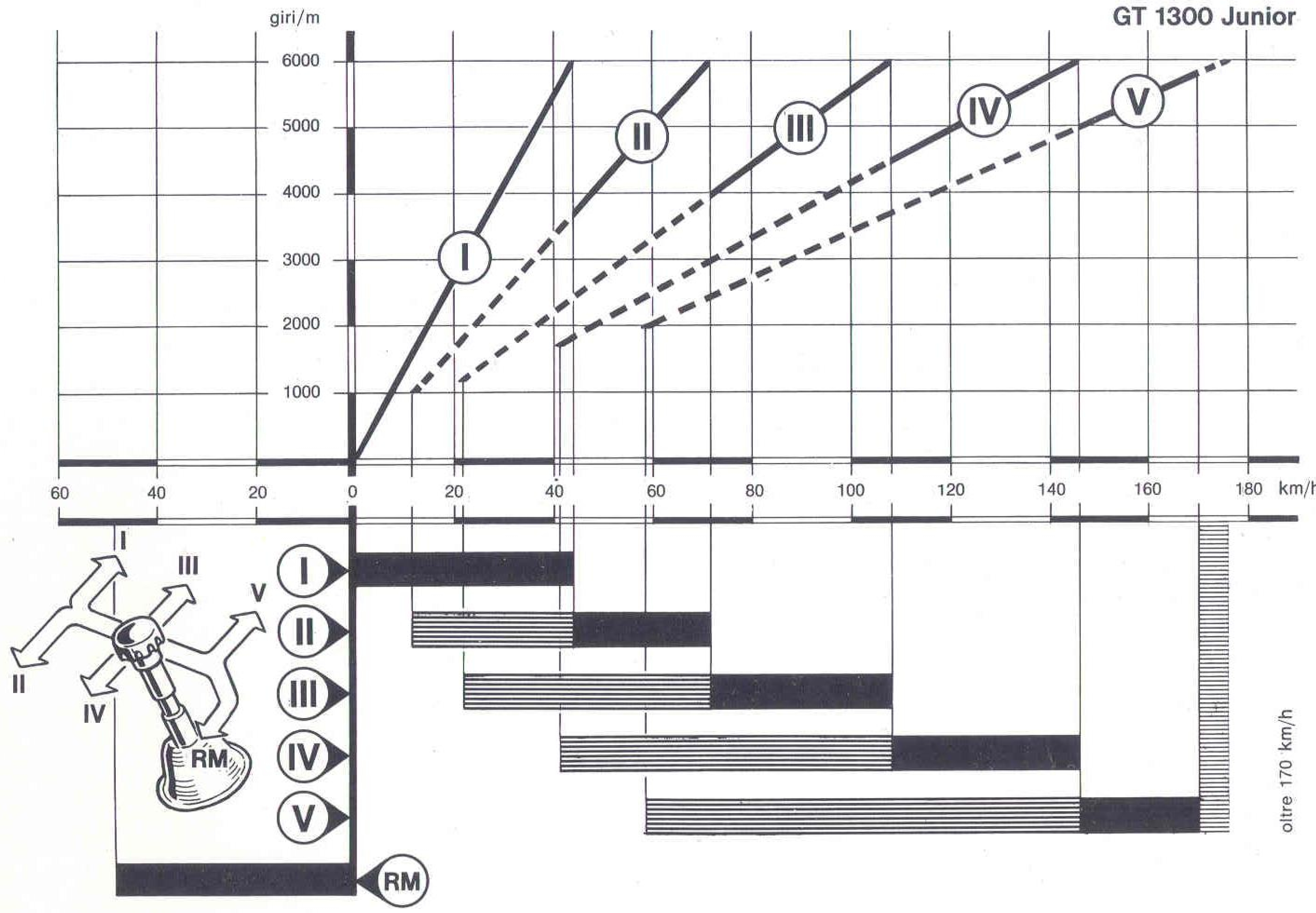
The wide track and low centre of gravity are those required by a performance car. Yet the interior allows driving and easeful passenger positions unaffected by the highest speeds. The seats are deep, sliding and the back-rests are adjustable. Comfort is perfect not only because of the way the seats are modelled to fit the body but also because of the precise setting of the suspension and the quality of the upholstery.
As in all Alfas there is a full set of driving instruments well-designed for visibility and also particularly elegant.
The boot - a sore point in practically all open sports cars - is a problem no longer. The space - 10.6 cub. ft. - is really designed to take luggage - as much as you need for a long journey. The soft top folds away completely and can be replaced in winter by a hard top planned for in the car's basic design and therefore functional and highly elegant.

Performance. The Spider's performance figures are those of the GT Junior, those, in other words, of a 105 m.p.h. car and holder of a formidable series of competition honours. Its power provides vivid acceleration combined with the

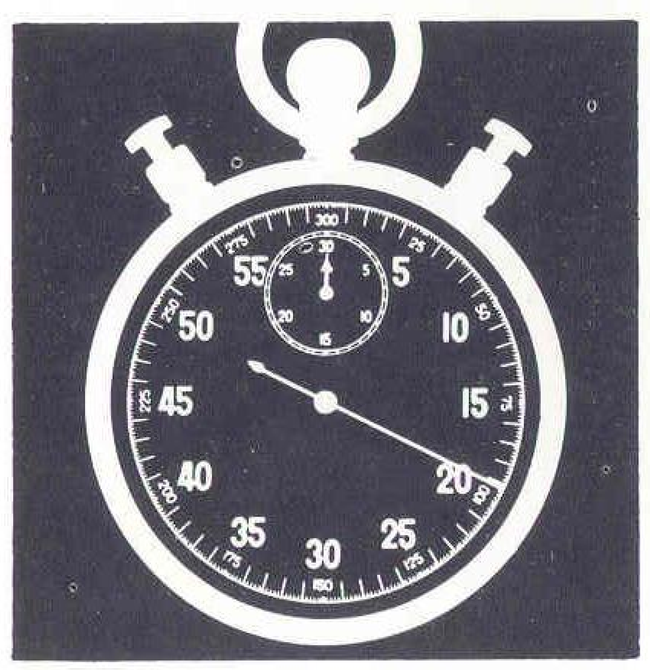
sort of flexibility that easily copes with both town traffic and motorway driving.

Safety. Applying the « differentiated » chassis, exclusive to Alfa Romeo, to a Spider required especially skilled development work. But the result has passed, with a wide margin, the tests recently imposed by the American safety standards.
In the Spider 1300 the « differentiated » chassis is the most important — but not the only — measure of protective safety employed. There is also the set-back steering box, short steering column, seatbelt anchorages, two driving mirrors, absence of any dangerous projections and padding around every single part that might cause personal injury. And last but by no means least there is the thoughtful layout of driving controls.
Preventive safety, however, is in the safe hands, not only of the braking system, but also the traditional and highly-reputed Alfa qualities; acceleration, manoeuverability and road-holding. The careful and precise combination of these features in a throughly well-balanced overall design makes the Spider 1300 yet another truly complete Alfa Romeo with the most lively and exciting driving possibilities at a constant and very high safety level.

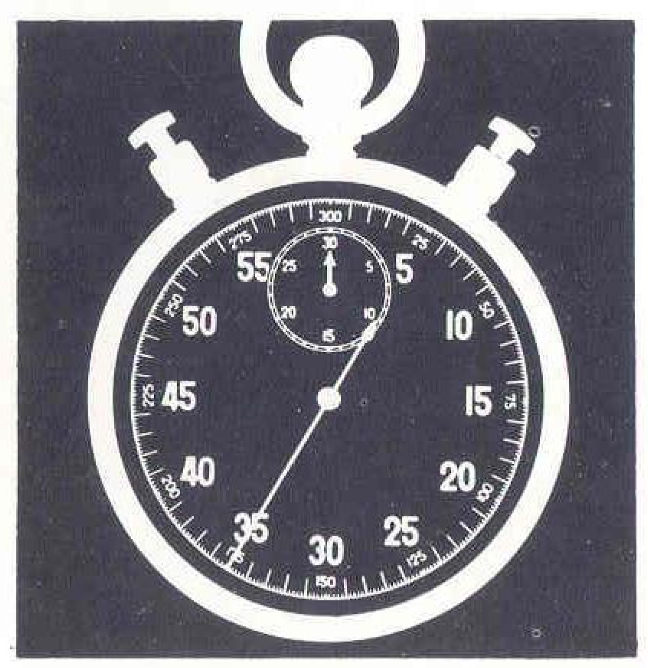
Only an engine of exceptional design as that fitted to the GT Junior could allow the use of a 5 speed gearbox. In fact, the GT Junior is the only car in its engine class capable of taking this gearbox with obvious advantages of acceleration and adaptability to every type of road condition. It contributes fundamentally to the durability of the engine and to the economical fuel consumption. Above all it makes driving a pleasure because this 5 speed gearbox complements the liveliness of the engine and is perfectly synchronised and smooth to operate.



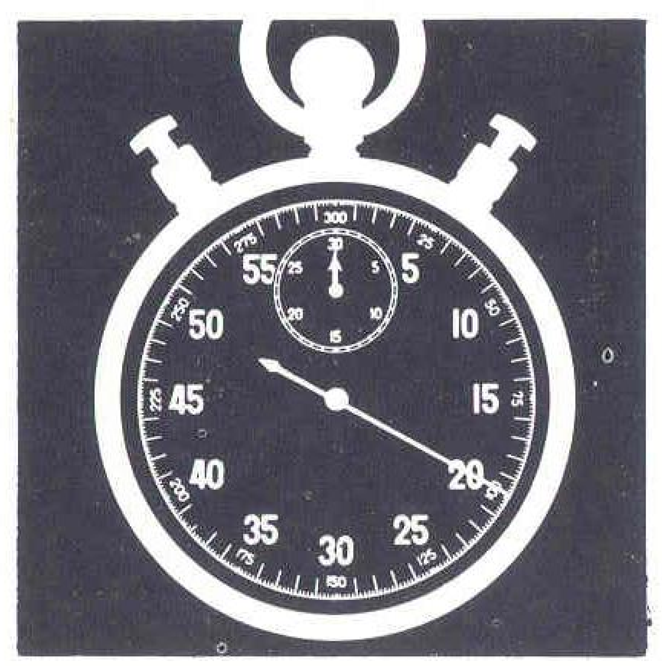
¼ mile from a standing start in 19" 1/10



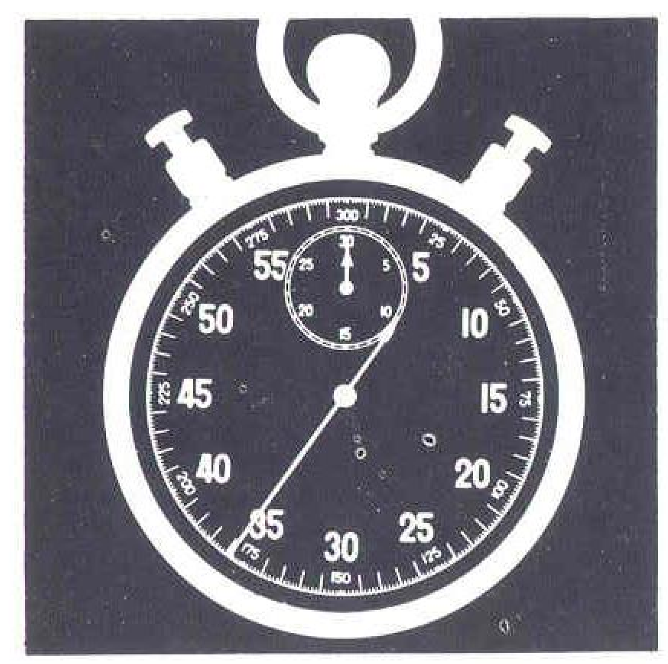
1 km from a standing start in 35"



¼ mile from 25 mph in 4th gear in 19" 7/10



1 km from 40 km/h in 4th gear in 35" 9/10



	GT 1300 JUNIOR	SPIDER 1300 JUNIOR
Cylinders	4 in line	4 in line
Bore	74 mm	74 mm
Stroke	75 mm	75 mm
Capacity	1290 cc	1290 cc
BHP at 6000 rpm	103 SAE	103 SAE
Wheelbase	2350 mm (7'8½")	2250 mm (7'4½")
Front track	1324 mm (4' 4¹/₈")	1324 mm (4' 4¹/₈")
Rear track	1274 mm (4' 2¹/₈")	1274 mm (4' 2¹/₈")
Overall length	4080 mm (13'4½")	4250 mm (13'11¼")
Overall width	1580 mm (5'2")	1630 mm (5'4")
Overall height (unladen)	1315 mm (4'4")	1290 mm (4'3")
Kerb weight	990 kg (2180 lbs)	990 kg (2180 lbs)
Maximum sped	over 170 km/h (over 105 mph)	over 170 km/h (over 105 mph)
Tyres	155 SR 15	155 SR 15
Tyres (Optional)	165 SR 14	165 SR 14
Seats	2 + 2	2
Electricial System	12 volt	12 volt
Petrol tank capacity	46 liters (10.1 imp. galls)	46 liters (10.1 imp. galls)

Carburation: two horizontal twin-choke carburettors.

Valves: V-overhead valves, directly operated by two camshafts acting through oil bath cups. Sodium-cooled exhaust valves.

Ignition: Golden Lodge sparking-plugs.

Clutch: single dry plate with progressive engagement. Diaphragm spring. Hydraulically operated.

Gearbox: Five synchromesh forward gears and reverse. Floor mounted gear shift lever.

Rear axle: anchored to body structure by two trailing arms and upper -A- bracket for transverse anchorage all with rubber bushes on the frame and axle; hypoid-type final drive.

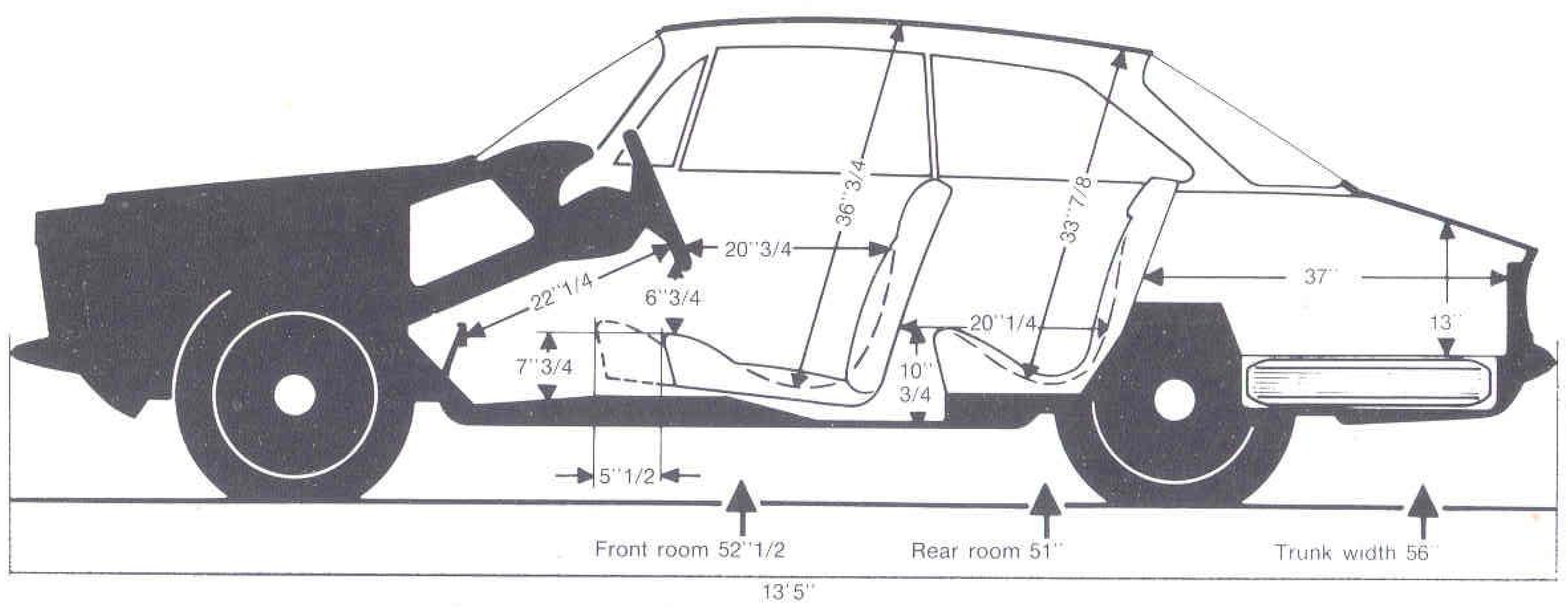
Front suspension: independent front wheel secured to the frame by transverse wishbones; coil springs and telescopic, hydraulic, double-acting shock-absorbers; transverse anti-roll bar.

Rear suspension: coil springs and coaxially mounted telescopic, hydraulic, double-acting shock-absorbers; transverse anti-roll bar.

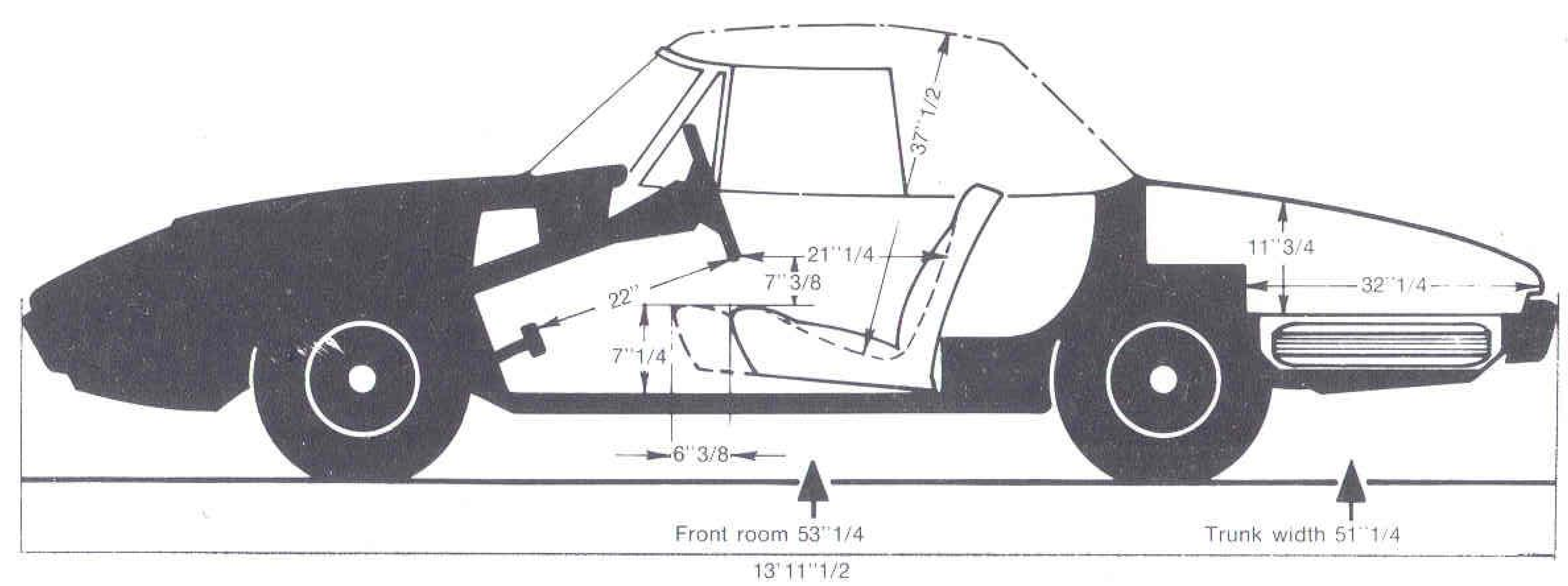
Steering: re-circulating ball or worm and roller.

Brakes: four discs. Vacuum operated servo. Handbrake operating independently of service brake through special drums on rear wheels.

GT 1300 JUNIOR



SPIDER 1300 JUNIOR



GTA 1300 Junior

This is a car with competition characteristics: and it is proper that, apart from the two lines of colour and the quadrifoglio on either side of the car and the Alfa insignia, the Visconti Serpent, symbol of a noble tradition, should appear on the bonnet.
Only three months from the official presentation, its victories enabled the achievement of supremacy in its class.
This car's lines are the same as those of the GTA 1600, of which it has the same racy jowl.
Like the GTA 1600 its main feature is its lightweight high-strength alloy (Peraluman 25) body. This and other measures adopted in the fittings - seats, interior panelling and accessories - make for considerable weight savings.

The engineering. The engine is new with a 1290 cc capacity like the GT Junior. But the whole power unit has been changed in proportions to make it oversquare, i.e. cylinder diameter larger than piston stroke.
In addition a double-ignition head is fitted (two plugs per cylinder) with larger, sodium type, inlet and exhaust valves improving the speed and completeness of combustion and volumetric efficiency. The power output is thus extremely high. Above all an engine of this design allows for a very throughgoing « conversion » and the Autodelta system, in cars prepared for competition driving, produces a considerable increase in power.

The high-performance characteristics of the engine are supplemented by new input and exhaust manifolds, two oversize twin-choke carburettors, two electric fuel pumps and a whole set of special engineering features improving engine operation and efficiency and ranging from the large capacity magnesium alloy oil sump to the 5-speed close-ratio gearbox.

The differential can be fitted with a limited system for even better road-holding on bends taken while accelerating and gear-ratios can be changed for competition purposes.

GTA 1300 JUNIOR

Cylinders	4 in line
Bore	78 mm
Stroke	67.5 mm
Capacity	1290 cc
BHP at 6000 rpm	SAE 110 (*)
Wheelbase	2350 mm (7'8½")
Front track	1324 mm (4' 4 1/8")
Rear track	1274 mm (4' 2 1/8")
Overall length	4080 mm (13'4½")
Overall width	1580 mm (5'2")
Overall height (unladen)	1315 mm (4'4")
Maximum speed over	175 km/h (108 mph)
Tyres	165 HR 14
Seats	2 + 2
Electrical system	12 volt
Petrol tank capacity	46 liters (10.1 imp. galls.)

Carburation: two horizontal twin-choke carburettors.

Valves: V-overhead valves, directly operated by two camshafts acting through oil bath cups. Sodium-cooled exhaust valves.

Ignition: two sparkings per cylinder.

Clutch: single dry plate with progressive engagement. Diaphragm spring. Hydraulically operated.

Gearbox: Five synchromesh forward gears and reverse. Floor mounted gear shift lever.

Rear axle: anchored to body structure by two trailing arms and upper -A- bracket for transverse anchorage all with rubber bushes on the frame and axle; hypoid-type final drive.

Front suspension: independent front wheel secured to the frame by transverse wishbones; coil springs and telescopic, hydraulic, double-acting shock-absorbers; transverse anti-roll bar.

Rear suspension: coil springs and coaxially mounted telescopic, hydraulic, double-acting shock-absorbers; transverse anti-roll bar.

Steering: worm and roller.

Brakes: four discs. Vacuum operated servo. Handbrake operating indipendently of service brake through special drums on rear wheels.

(*) In Autodelta version 160 BHP (SAE) at 7800 rpm.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