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The Motor Road Test No. 29/59 (Continental)

Make: Sunbeam **Type:** Alpine (with overdrive)

Makers: Sunbeam-Talbot Ltd., Ryton-on-Dunsmore, Coventry

Test Data

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CONDITIONS: *Weather: Hot and dry with light breeze. (Temperature 67°-77°F. Barometer 29.9-30.0 in. Hg.) Surface: Dry tarred macadam and concrete. Fuel: Premium grade pump petrol (approx. 96 Research Method Octane Rating).*

INSTRUMENTS

Speedometer at 30 m.p.h.	2% fast
Speedometer at 60 m.p.h.	4% fast
Speedometer at 90 m.p.h.	6% fast
Distance recorder	Accurate

WEIGHT

Kerb weight (unladen, but with oil, coolant and fuel for approx. 50 miles)	19½ cwt.
Front/rear distribution of kerb weight	51/49
Weight laden as tested	23¼ cwt.

MAXIMUM SPEEDS

Flying Quarter Mile. (Overdrive top gear)

Mean of four opposite runs	99.5 m.p.h.
Best one-way time equals	100.6 m.p.h.

"Maximile" Speed (Timed quarter mile after one mile accelerating from rest).

Mean of opposite runs	95.1 m.p.h.
Best one-way time equals	95.7 m.p.h.

Speed in gears (at 5,600 r.p.m.)

Max. speed in direct top gear	91 m.p.h.
Max. speed in overdrive 3rd gear	81 m.p.h.
Max. speed in direct 3rd gear	65 m.p.h.
Max. speed in 2nd gear	42 m.p.h.
Max. speed in 1st gear	27 m.p.h.

FUEL CONSUMPTION

(Overdrive top gear)

46.0 m.p.g. at constant 30 m.p.h. on level.
45.0 m.p.g. at constant 40 m.p.h. on level.
39.5 m.p.g. at constant 50 m.p.h. on level.
35.0 m.p.g. at constant 60 m.p.h. on level.
31.0 m.p.g. at constant 70 m.p.h. on level.
27.5 m.p.g. at constant 80 m.p.h. on level.
24.5 m.p.g. at constant 90 m.p.h. on level.

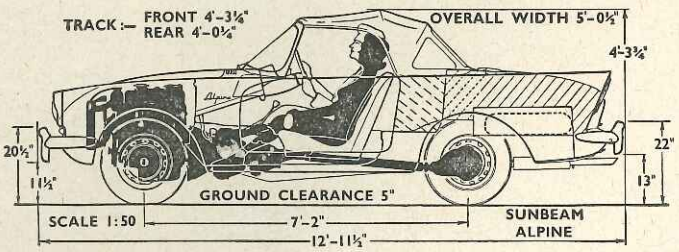
(Direct top gear)

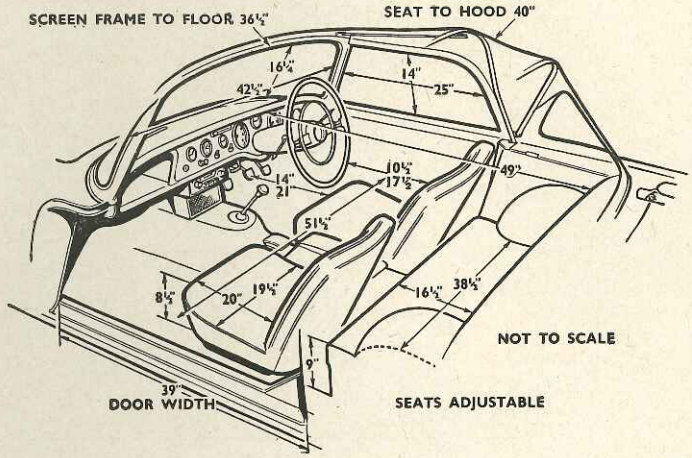
41.5 m.p.g. at constant 30 m.p.h. on level.
40.0 m.p.g. at constant 40 m.p.h. on level.
35.0 m.p.g. at constant 50 m.p.h. on level.
31.0 m.p.g. at constant 60 m.p.h. on level.
28.0 m.p.g. at constant 70 m.p.h. on level.
25.0 m.p.g. at constant 80 m.p.h. on level.

Overall Fuel Consumption for 2,721 miles, 99.4 gallons, equals 27.4 m.p.g. (10.3 litres/100 km.).
Touring Fuel Consumption (m.p.g. at steady speed midway between 30 m.p.h. and maximum, less 5% allowance for acceleration). 31.4 m.p.g.
Fuel tank capacity (maker's figure) 9 gallons.

STEERING

Turning circle between kerbs: Left	33½ feet
Right	34½ feet
Turns of steering wheel from lock to lock	3½





ACCELERATION TIMES from standstill

0-30 m.p.h.	4.9 sec.
0-40 m.p.h.	7.0 sec.
0-50 m.p.h.	10.2 sec.
0-60 m.p.h.	13.6 sec.
0-70 m.p.h.	17.9 sec.
0-80 m.p.h.	24.7 sec.
0-90 m.p.h.	35.0 sec.
Standing ¼-mile	19.7 sec.

ACCELERATION TIMES on upper ratios

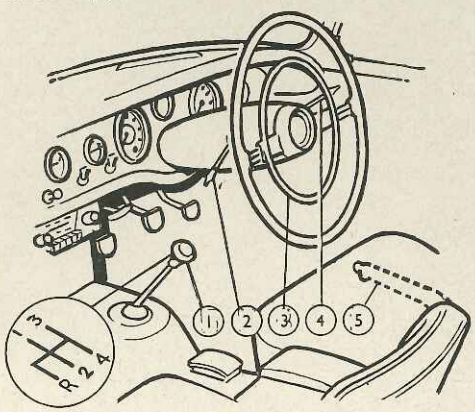
	Overdrive top gear	Direct top gear	Overdrive 3rd gear	Direct 3rd gear
10-30 m.p.h.	—	10.8 sec.	9.6 sec.	7.7 sec.
20-40 m.p.h.	14.6 sec.	10.2 sec.	9.6 sec.	6.8 sec.
30-50 m.p.h.	14.9 sec.	9.9 sec.	8.3 sec.	6.2 sec.
40-60 m.p.h.	15.8 sec.	10.3 sec.	8.6 sec.	6.9 sec.
50-70 m.p.h.	17.3 sec.	10.9 sec.	9.5 sec.	8.8 sec.
60-80 m.p.h.	21.0 sec.	13.5 sec.	12.2 sec.	
70-90 m.p.h.	29.5 sec.	17.1 sec.	—	—

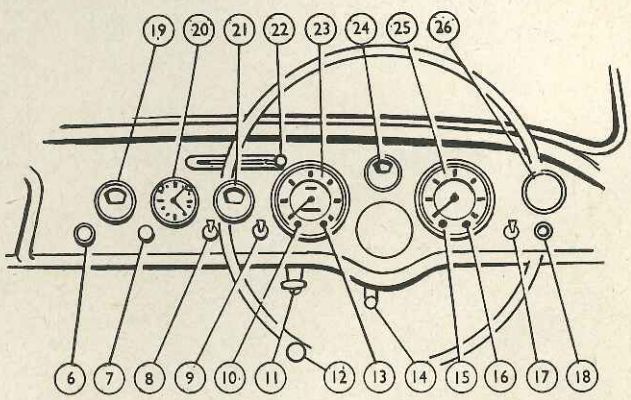
BRAKES from 30 m.p.h.

0.91g retardation (equivalent to 33 ft. stopping distance) with 70 lb. pedal pressure
0.60g retardation (equivalent to 50 ft. stopping distance) with 50 lb. pedal pressure
0.30g retardation (equivalent to 100 ft. stopping distance) with 25 lb. pedal pressure

HILL CLIMBING at sustained steady speeds

Max. gradient on Overdrive top gear	1 in 13.5 (Tapley 165 lb./ton)
Max. gradient on Direct top gear	1 in 9.5 (Tapley 235 lb./ton)
Max. gradient on Overdrive 3rd gear	1 in 8.7 (Tapley 255 lb./ton)
Max. gradient on Direct 3rd gear	1 in 6.4 (Tapley 345 lb./ton)
Max. gradient on 2nd gear	1 in 4.1 (Tapley 535 lb./ton)





1, Gear lever. 2, Direction indicator switch. 3, Horn ring. 4, Overdrive switch. 5, Handbrake. 6, Ignition and starter switch. 7, Choke control. 8, Panel light switch. 9, Lights switch. 10, 16, Direction indicator warning lights. 11. Bonnet catch release. 12, Headlamp dip switch. 13, Dynamo charge warning light. 14, Trip re-setting knob. 15, Main beam indicator. 16,—see 10. 17, Windscreen wipers switch. 18, Windscreen washer button. 19, Fuel contents gauge. 20, Clock. 21, Water thermometer. 22, Ventilator control. 23, Speedometer and distance recorder. 24, Oil pressure gauge. 25, Rev. counter. 26, Blank (for optional ammeter).

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The SUNBEAM ALPINE (with overdrive)

AT HOME in the mountains, the Sunbeam Alpine corners on a Swiss pass during our five-country test.

Sports-car Fun in Armchair Comfort

INTRODUCED during the summer as a completely new model, the Sunbeam Alpine which we have been able to test in England, Belgium, France, Germany and Switzerland, combines in a single competitively-priced car some of the best of two worlds. Eye-catching sports car lines are matched by the brisk acceleration, the maximum speed of virtually 100 m.p.h., highly responsive steering and reassuringly powerful disc brakes. But, if this is a sports car, it belongs to the new generation of sports cars which is not merely weatherproof when required, but offers two people greater comfort than they would enjoy in many quite expensive touring cars.

It is no secret that the competitive price of this model (including purchase tax, it only exceeds £1,000 when extras such as the overdrive are added to its basic specification) is possible because the design takes advantage of tooling which has been laid down for other Rootes Group models: the power unit has a basic similarity to Hillman and Singer units, and the chassis uses some Husky estate car pressings in its make-up. Consequently, it is pleasing to be able to record at the end of an extended trial that certain characteristics which have recently been noted almost as "family failings" seem to have been eradicated. Oil consumption on this car was so small, for example, that the Alpine ran nearly 2,000 miles in our hands before any excuse could be found for topping up the engine sump with a single pint. Gearbox ratios which used to earn almost automatic criticism have given place to ratios whose spacing should please anyone who is not actually allergic to gear levers. Handling qualities far more sensitive and responsive than might have been expected have been built into this model. Despite a higher compression ratio than has been used on any former Rootes engine, this car with its new aluminium cylinder head (in which no two exhaust valves adjoin one another) is happy even on the not-very-good petrol of France.

Scaling not very far short of one ton in convertible form (it is easy to add a rigid "hardtop" without removing the folded hood) this 1½-litre car has too much strength and comfort built into it to offer "racing" acceleration, but it will perform well for two different kinds of driver. In sporting mood, and using the overdrive and the four gearbox ratios freely to let the engine get up to and beyond 5,000 r.p.m. quite frequently, a keen driver gets over the ground very fast indeed to the tune of a hearty bark from the exhaust. More sedately drivers and perhaps with the overdrive switch used as a lazy-man's substitute for the gear lever, the Alpine still gets over the ground quite quickly and with a lot less exhaust noise, the engine being perfectly willing to pull away from 1,000 r.p.m. in one of the higher gears, but its torque rising gradually over much of the speed range at a rate which in top gear roughly matches the car's rise in air resistance, so that top gear acceleration remains remarkably constant in rate from 10 m.p.h. right up to 70 m.p.h.

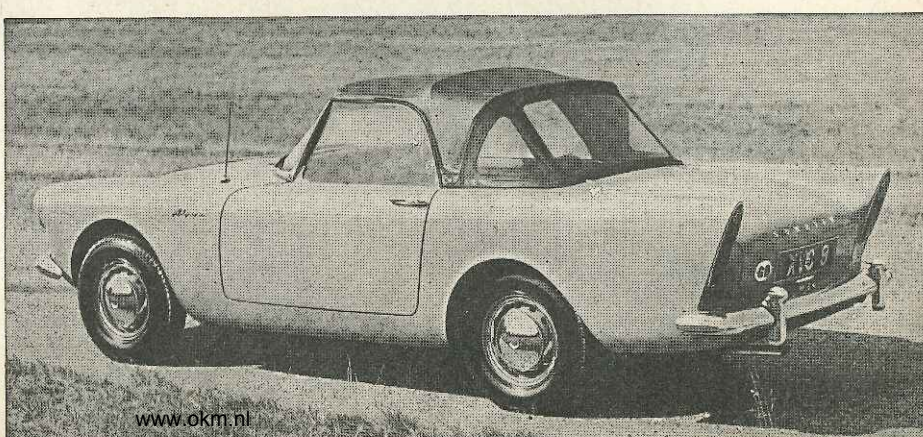
With such a versatile engine, there were naturally wide variations in fuel consumption according to where and how the Alpine was driven, our worst figure over a substantial distance being 19.4 m.p.g. when hard-driving members of the staff sampled the car in and near to London, our best reading 32.2 m.p.g. during fairly leisurely exploration of Black Forest mountain roads. The fuel tank capacity of this model is nominally 9 gallons, but a gauge which indicated an emphatic zero when 7 gallons had been used out of a brim-full tank discouraged long drives without refuelling.

Our test car had the Laycock-de Normanville switch-controlled overdrive as a very welcome supplement to the four-speed gearbox, operative in conjunction with top or third gears, and smooth in engagement yet free from slip at all times; in conjunction with the overdrive a 4.222 axle ratio gives livelier top gear acceleration than the 3.889 ratio otherwise specified. For sheer maximum speed, the combination used for our test may not be ideal, 5,600 r.p.m. (the red mark on the tachometer dial, and a speed beyond which the valvegear becomes suddenly very noisy)

In Brief

Price (including overdrive, as tested)	£727 10s., plus purchase tax £304 5s., equals £1,031 15s. 0d.
Price without overdrive (including purchase tax),	£971 10s. 10d.
Capacity	1,494 c.c.
Unladen kerb weight ...	19½ cwt.
Acceleration:	
20-40 m.p.h. in top gear ...	10.2 sec.
0-50 m.p.h. through gears	10.2 sec.
Maximum direct top gear gradient	1 in 9.5
Maximum speed	99.5 m.p.h.
"Maximile" speed	95.1 m.p.h.
Touring fuel consumption ...	31.4 m.p.g.
Gearing (with 5.90—13 tyres):	16.2 m.p.h. in top gear at 1,000 r.p.m. (overdrive, 20.2 m.p.h.); 32.4 m.p.h. at 1,000 ft./min. piston speed (overdrive, 40.4 m.p.h.)

WEATHER PROTECTION which does not destroy vision is provided by a folding hood with broad three-piece rear window, and by winding glass windows which are firmly braced to the curved glass windscreen.



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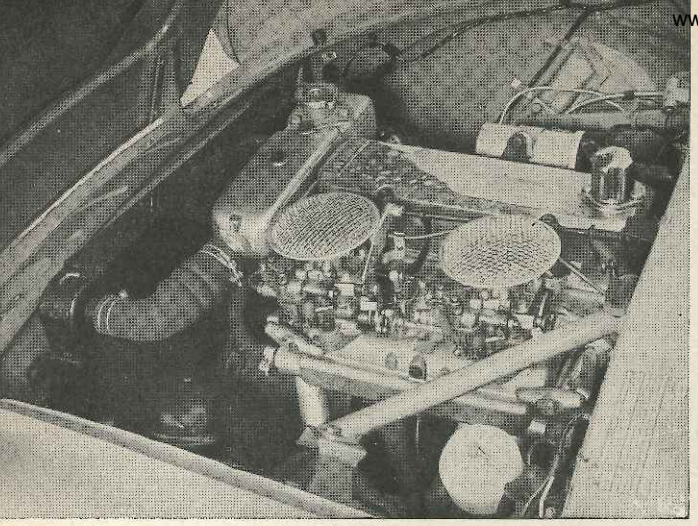


TWIN downdraught carburetters on a water-jacketed inlet manifold, a divided exhaust system and a new light-alloy cylinder head allow the 1½-litre engine to provide a maximum speed of around 100 m.p.h.

The SUNBEAM

representing 91 m.p.h. in direct top gear but the timed maximum of 99.5 m.p.h. in overdrive top gear being short of the 5,300 r.p.m. at which maximum power is developed. For anything other than level-road maximum speed, however, the overdrive obviously much improves the car, there being a "right" ratio available for acceleration over any possible speed range, and a sustained 80 m.p.h. on day-long Autobahn drives seeming effortless and quite economical at only 4,000 r.p.m.

An extremely pleasant central remote control is provided for this model's silent new four-speed gearbox, which has quite good synchromesh on gears other than 1st. Overdrive 3rd is a ratio only slightly lower than direct top gear (at 5,000 r.p.m. one gives 72 m.p.h. and the other 81 m.p.h.) and is used very frequently, in town for quiet progress at 30 m.p.h. or on the open road when regaining cruising speed.

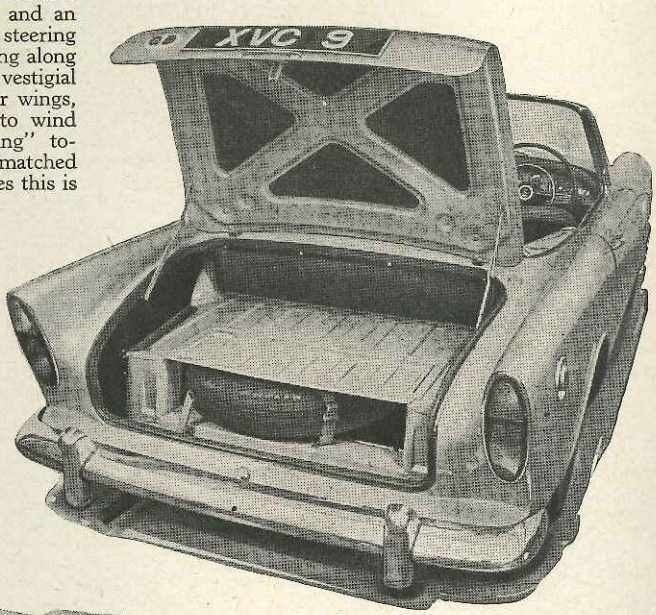
X-braced amidships and with the scuttle structure linked to the i.f.s. anchorages by tubular struts, the Alpine's integral body-chassis structure appears notably rigid, cobbled Flanders by-ways causing no evident distortion—something which it is rarely possible to say about an open car with wide doors. The springing is soft enough for *pavé* to cause no discomfort whatever, even with the Dunlop "Road Speed" tyres at the higher inflation pressures advised for fast motorway cruising, and some buyers might actually prefer rather firmer damping of the springs. It is low build and reasonable track width which let this car corner quickly with very little body roll, and not the use of harsh springs. Really pushed towards the limit on a bumpy corner, the Alpine's rear axle can begin to hop somewhat under its semi-elliptic springs, but general standards of road holding are high.

In respect of steering this car invites judgment by far higher standards than any other recent Rootes car, a driver soon learning that he can relax physically and guide the car with finger pressures on the wheel rim at most times. There is feel in the steering but not any tiring amount of reaction from bumpy roads, the further improvement which might be welcome being closer harmony between fairly strong castor and understeer when the car is cornering and an almost excessive degree of steering sensitivity during fast driving along a straight road. Despite the vestigial tail fins formed by the rear wings, the car yields noticeably to wind rather than "weathercocking" towards it, but with correctly matched front and rear tyre pressures this is a car which makes fast progress along reasonably traffic-free roads a real joy.

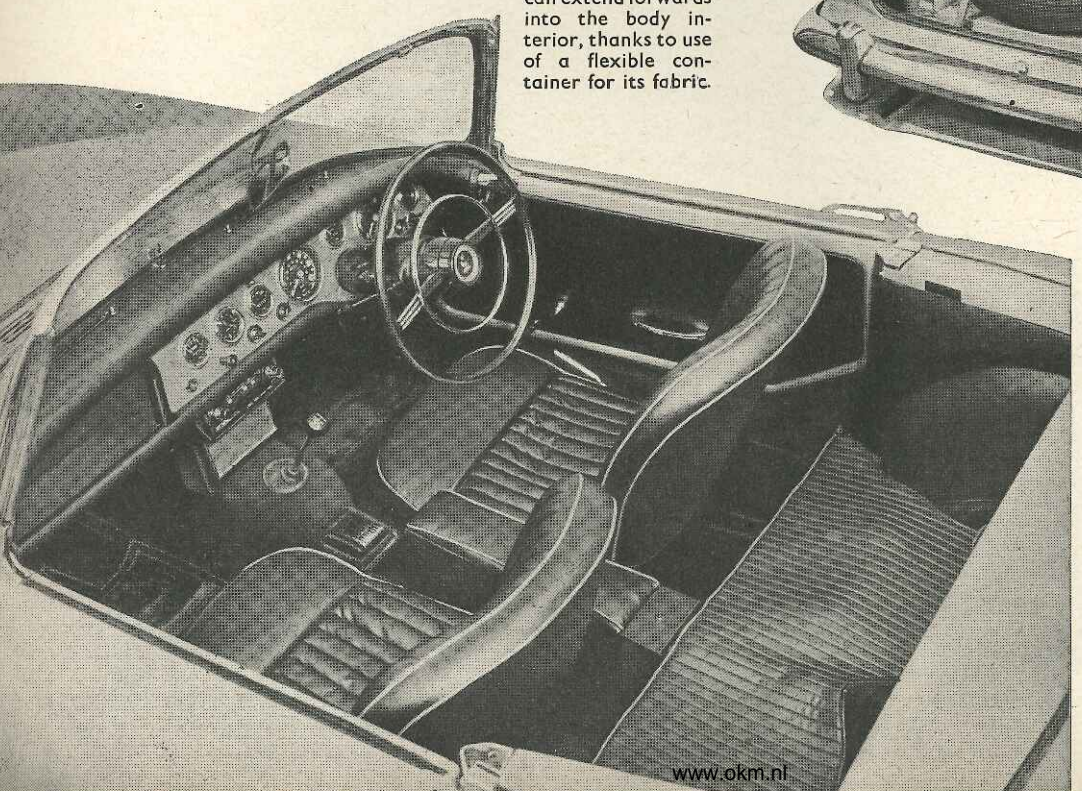
In making notes about the Alpine, it was afterwards realised that all reference to the brakes had been completely omitted, which for a rapid and hard-driven car is a silent testimony to their excellence. Disc brakes behind the bolt-on front wheels work with the drum-type rear brakes to give all the braking which is required or which road adhesion permits, quietly and in response to a comfortably moderate pedal pressure, whilst the hand-brake can hold the car on a 1 in 3 gradient.

Amenities for the driver and passenger in the Alpine are centred on two bucket seats; their upholstery is reasonably firm but the standard of comfort provided on a long journey is far higher than on the superficially soft cushions (providing little or no lateral support) of most family saloons. Since the first batch of Alpines went into showrooms, the steering column has been raised to bring the steering wheel rim clear of a driver's thighs, and the driving position of our test model made people of very varied shapes and sizes comfortable. At first acquaintance, head-room when the hood is erect seems limited and a piece of hood-frame is rather near to a tall driver's head, but the car is so sprung that proximity never becomes contact.

Whereas most sporting cars which can



LOCK-UP accommodation for a certain amount of luggage is provided on this flat shelf above the spare wheel. When the hood is raised, bulky loads can extend forwards into the body interior, thanks to use of a flexible container for its fabric.



TWO seats which are thoroughly comfortable are divided by a central armrest, which serves also as a locked glove-box. The space behind these seats can accommodate a good deal of luggage or if necessary an adult passenger or two small children.

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ALPINE

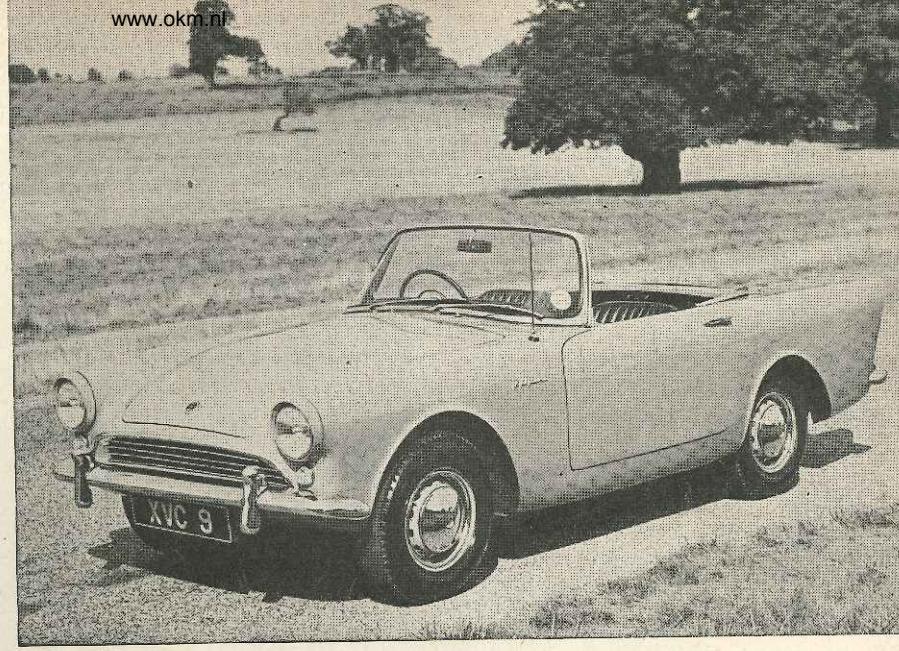
be compared in price with the Alpine use removable sidescreens, and can gain elbow width by having hollowed-out or cutaway doors, this model has wind-down glass windows. In respect of weather-proofness, clear vision and general convenience this is obviously an advantageous arrangement. At first acquaintance, a bulky driver is conscious that his shoulder readily contacts the door, but tumble-home on the body sides provides extra width at elbow level, even more width at floor level so that a very convenient pull-up handbrake lever can be accommodated on the driver's off side. Erect, the side windows seal against rubber strips on the windscreen frame, and lowered they disappear completely from view, but a tendency for the hood sides to suck outwards at speeds over 60 m.p.h. can interfere with the complete closing of an opened window.

Separate from the spare wheel stowage, the lockable rear luggage compartment has a flat floor which will not harm cases, but is too shallow to be very capacious. A large well behind the front seats provides a great deal more carrying capacity, and a passenger sitting sideways can travel here. Extra accommodation under lock and key is provided inside what appears to be only an armrest (and a very useful one) between the front seats.

As an open car, the Alpine has no visible trace of any hood, three hinged metal covers painted to match the rest of the coachwork concealing both fabric and framework. As a closed car, there is full protection against draughts and rain, but a fair amount of "wind whistle" which builds up as the cruising speed goes beyond 70 m.p.h. and, on a motorway, demands rather a high volume from the loud speaker if a radio programme is to be enjoyed. As always, practice allows the job to be done more quickly and more neatly, but neither erection of the hood nor its neat stowage in the wells provided are particularly rapid though both jobs are entirely practicable single-handed. A further nuisance for well-laden holiday-makers is that the hood covers will not hinge open fully unless the rear "seat" is cleared of luggage. A parcel compartment of substantial size on the facia, with a lip which holds maps and guide-books in position, helps tourists to keep their car reasonably tidy.

Equipment on this car lets both the sporting motorist and the sybarite enjoy it. The former has a neat and legible set of instruments, including oil pressure gauge, coolant thermometer, trip speedometer, rev. counter and provision for an ammeter if desired; a good all-round view kept clear by windscreen washing sprays, and convenient controls which include a horn ring. The latter can have a heater to supplement the fresh-air ventilation system, will appreciate doors wide enough to make this amongst the easiest of low-built cars to enter, and can relax thanks to the vibration-free engine and shock-free springing.

A dual appeal is, in fact, the essence of the Alpine. For young people who want a sports car but need accommodation for one or two small children, it can satisfy both the wish and the need at reasonable cost. Anyone of an older generation whose family have grown up and bought their own cars, and who is getting bored with driving on crowded roads, should consider whether perhaps a comfortable yet nimble car such as the Alpine is not perhaps the "prescription" for putting pleasure back into motoring.



FALLING bonnet line to provide good driving vision, full-width bumpers, and doors wide enough to make entry to a low-built car easy, are practical details shown in this view of the Alpine.

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Specification

Engine

Cylinders	4
Bore	79 mm.
Stroke	76.2 mm.
Cubic capacity	1,494 c.c.
Piston area	30.4 sq. in.
Valves	Pushrod o.h.v.
Compression ratio	9.2/1
Carburetter	Two Zenith W.I.P. 36 downdraught
Fuel pump	AC mechanical
Ignition timing control	Centrifugal and vacuum
Oil filter	Fram or Tecalemit full-flow
Max. power (gross)	83.5 b.h.p. (net, 78 b.h.p.)
at	5,300 r.p.m.
Piston speed at max. b.h.p.	2,650 ft./min.

Transmission

Clutch	Borg & Beck 8 in. s.d.p.
Top gear (s/m)	4.22 (overdrive, 3.39)
3rd gear (s/m)	5.88 (overdrive, 4.72)
2nd gear (s/m)	9.04
1st gear	14.13
Reverse	17.9
Overdrive	Laycock-de Normanville
Propeller shaft	Hardy Spicer open
Final drive	Hypoid bevel
Top gear m.p.h. at 1,000 r.p.m.	16.2 (overdrive, 20.2)
Top gear m.p.h. at 1,000 ft./min. piston speed	32.4 (overdrive, 40.4)

Chassis

Brakes	Girling hydraulic, disc front and drum rear
Brake disc diameter	9½ in.
Brake drum internal diameter	9 in.
Friction lining area	80.6 sq. in.

Suspension:
Front: Independent by coil springs, transverse wishbones and anti-roll torsion bar.
Rear: Semi-elliptic springs and rigid axle.

Shock absorbers: Front	Armstrong telescopic
Rear	Armstrong lever arm
Steering gear	Burman re-circulating ball
Tyres	Dunlop 5.90—13 Road Speed on test car (or Dunlop 5.60—13 tubeless)

Coachwork and Equipment

Starting handle	Yes
Battery mounting	Under occasional rear seat
Jack	Pillar type
Jacking points	Four external on bumper brackets

Standard tool kit: Jack, wheelbrace, tool roll, sparking plug spanner and tommy bar, adjustable spanner, pliers, screwdriver, distributor key, tyre valve key, nave plate removal key, four open-ended spanners, grease gun.

Exterior lights	2 headlamps, 2 sidelamps/flashers, 2 stop/tail lamps, number plate lamp.
Number of electrical fuses	Two
Direction indicators	Self-cancelling flashers (white front, amber rear)
Windscreen wipers	Electrical two-blade, self-parking
Windscreen washers	Optional extra
Sun visors	None

Instruments: Speedometer with decimal-trip and total distance recorder, rev. counter, oil pressure gauge, coolant thermometer, fuel contents gauge.
Warning lights: Dynamo charge, headlamp main beam, direction indicators.

Locks: With ignition key	Ignition/starter switch and either door
With other key	Glove locker and luggage locker

Glove lockers: Open cubbyhole on facia and lockable compartment in central arm-rest.

Map pockets	None
Parcel shelves	None
Ashtrays	None
Cigar lighters	None
Interior lights	None
Interior heater	Optional extra fresh-air heater and screen de-mister
Car radio	Optional extra, Radiomobile or Ekco

Extras available: Centre lock wire wheels, Road Speed or white-wall tyres, laminated glass windscreen, tonneau cover, oversize battery, oil cooler, air filter, radio, heater, removable hard top, reversing lights, etc.

Upholstery material	Vynide
Floor covering	Rubber mats
Exterior colours standardized	Five colours
Alternative body styles	None (Removable hard-top optional on open body)

Maintenance

Sump (10° F. to 90° F.)	7 pints, S.A.E. 20 or 10W/30
Gearbox	2¾ pints plus 1¼ pints in overdrive S.A.E. 30
Rear axle	1¾ pints S.A.E. 90 E.P.
Steering gear lubricant	S.A.E. 160 gear oil
Cooling system capacity	14 pints (2 drain taps)
Chassis lubrication	By oil gun every 1,000 miles to 23 points
Ignition timing	5°-7° before t.d.c. static
Contact-breaker gap	0-014-0.016 in.
Sparking plug type	14 mm. Champion N5
Sparking plug gap	0.025 in.

Valve timing: Inlet opens 14° before t.d.c. and closes 52° after b.d.c.; exhaust opens 56° before b.d.c. and closes 10° after t.d.c.

Tappet clearances (cold): Inlet	0.012 in.
Exhaust	0.014 in.
Front wheel toe-in	⅛ in. at tyres
Camber angle	½°-1°
Castor angle	4° 41′
Steering swivel pin inclination	5°-5½°
Tyre pressures: Front	22-25 lb.
Rear	23-27 lb. according to speed
Brake fluid	Lockheed or Girling to S.A.E. specification 70 R.3
Battery type and capacity	Lucas BT.7A 12 volt 38 amp./hr.

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