MOTOR ROAD TEST No. 23/68 ● Alfa Romeo 1750 GTV

Flair for speed

Stylish high performance two-door coupé with superb handling and roadholding; economy excellent

TESTING the Alfa Romeo 1750 GT Veloce was rather like meeting an old friend—a friend improved in status and prosperity. This is not so much due to familiarity, although it is the fifth Alfa to come under our scrutiny in four years, but because once more the general excellence of these Italian cars has been brought home to us. The engineers at Arese might be excused for wearing permanently smug I-told-you-so smirks on their faces, for this excellence derives from the far-seeing adoption many years ago of three main design features which several rival manufacturers are still struggling to perfect: a light-alloy twin-overhead-camshaft engine, a five-speed gearbox and a good suspension system which includes a properly located rear axle. From the first feature Alfas get their unusually good performance relative to capacity; from the second the ability to use it under a wider variety of conditions than is possible with other cars; and from the third, handling and roadholding that can only be surpassed by an all-independent suspension layout of exceptional design.

PRICE: £1,758 plus £490 8s 5d purchase tax equals £2,248 8s 5d
INSURANCE: AOA group rating 7: Lloyd's, On application

Having refined the gearbox and suspension almost to perfection, only the power unit remained capable of much further improvement; accordingly, Alfa Romeo announced early this year a bigger and more powerful engine. This new power unit is now the standard fitting for the Spider, and for the sporting 1750 GTV reported on here; it is also available in the new 1750 saloon whose bodyshell is a larger version of the Giulia Super—which remains in production as before.

By increasing the capacity of their existing 1,570 c.c. four-cylinder unit to 1,779 c.c., power output has been raised from 125 (gross) b.h.p. at 6,200 r.p.m. to 132 b.h.p. at 5,500 r.p.m., and maximum torque from 114 lb.ft. at 2,500 r.p.m. to 137 lb.ft. at 2,900 r.p.m. Although the stroke has been increased by a greater amount than the bore (the stroke/bore ratio is up from 1.05 to 1.1) increased wear seems unlikely if the moderate oil consumption is anything to go by, and the ability of the engine to rev freely and smoothly to 6,200 r.p.m. remains unchanged.

Already a fast car in its earlier form, the new engine makes the GTV even faster. Compared with our best available yardstick, the Duetto—which probably has a lower frontal area but a higher drag factor than the GTV—the top speed is 115.5 m.p.h. instead of 111.1 m.p.h. and the 0-60 m.p.h. acceleration time 9.3s. instead of 11.2s. The important points are the quietness with which this

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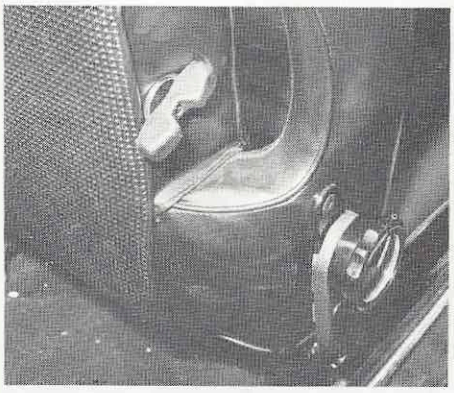
performance is achieved (sound insulation has been improved) and the superb handling and roadholding that go with it. In a week spent on give-and-take Belgian and French roads in company with an American sports car of four times the capacity and over three times the power (Chevrolet Corvette Sting Ray) the Alfa was seldom left far behind, and on rough, twisty roads it could often go faster. A flat spot at around 2,000 r.p.m. and a tendency for the inside rear wheel to lift and spin were the only minor criticisms we could find in what many of our test staff came to regard as their ideal car.

Unfortunately, in this country the 1750 GTV costs £2,248, which means that it competes on more or less level terms with other foreign performance cars like the Peugeot coupe and the Porsche 912, or even our own Lotus Elan +2, but is drastically undercut by such cars as the Lotus Cortina which is almost as fast but costs only £1,162. Alternatively there is the E-type 2 + 2 (not shown in our comparison chart because we have not tested it in manual gearbox form), which is available for about the same price but has considerably superior performance. Nevertheless, the outstanding qualities of the Alfa should still guarantee it a reasonable market.

Performance and economy

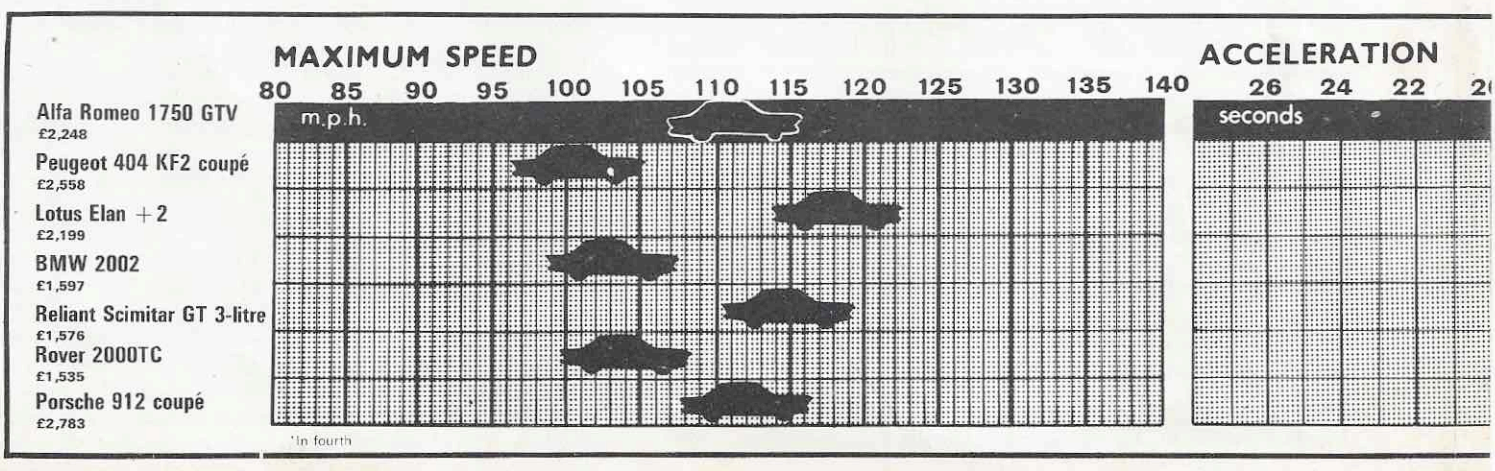
High performance car though the Alfa undoubtedly is, it does not give this impression to the driver (although driving pleasure is in no way diminished in consequence) because of the smoothness and reticence of the engine. Were it not for the flat spot around 2,000 r.p.m.—which we suspect could be cured without much reduction in economy by attention to the accelerator pump or fitting slightly richer jets—the engine would pull cleanly, albeit a little weakly at first, all the way from around 1,500 r.p.m. up to the maximum of 6,200. There is, however, a slight resonant period at around 4,800 r.p.m. which is noticeable in third and fourth. At these high r.p.m. there is a muffled bellow of pleasing tone from the exhaust. During the start-up period there is a little mechanical clatter before the aluminium block has expanded to its working dimensions.

The rear seats are well shaped but there is little legroom.



Wing nut adjusts headrest height. Lower knob is for rake adjustment.

The front seats—grooved and cut away for ventilation—can be reclined and have a good range of fore and aft adjustment. The front passenger's seat has a built-in headrest.



It would take a very keen eye to distinguish between the GT 1300 and the road test Alfa shown here.

Performance

Performance tests carried out by *Motor's* staff in Belgium.

Conditions

Weather: Warm and dry, wind 5 m.p.h.
Temperature approx. 65°F.
Surface: Dry tarmacadam.
Fuel: 98 octane (RM). 4-star rating.

Maximum speeds

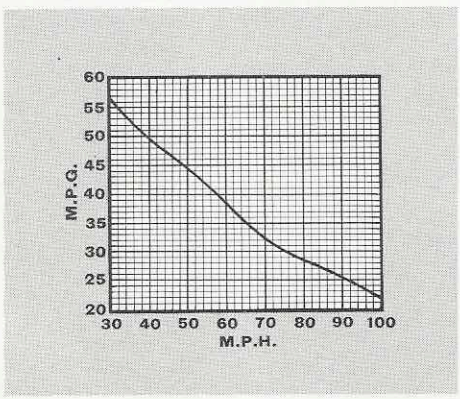
	m.p.h.	k.p.h.
Mean opposite runs	115.5	185.5
Best one-way kilometre	118.0	189.9
4th gear	107.0	172.0
3rd gear	80.0	129.0
2nd gear	54.0	87.0
1st gear	33.0	53.0

"Maximile" speed: (Timed quarter mile after 1 mile accelerating from rest)
Mean . . . . . 109.7 m.p.h.
Best . . . . . 112.3 m.p.h.

Acceleration times

m.p.h.	sec.
0-30	3.0
0-40	4.8
0-50	6.8
0-60	9.3
0-70	12.7
0-80	16.7
0-90	22.3
0-100	29.7

m.p.h.	5th sec.	4th sec.	3rd sec.
10-30	—	—	6.8
20-40	13.6	8.6	5.7
30-50	13.2	8.1	5.8
40-60	11.1	7.5	5.5
50-70	11.5	8.0	6.1
60-80	13.3	9.0	6.8
70-90	17.0	10.0	—



Fuel consumption

Touring (consumption midway between 30 m.p.h. and maximum less 5% allowance for acceleration) . . . . . 29.5 m.p.g.
Overall . . . . . 23.4 m.p.g. (=12.1 litres/100km)
Total test distance . . . . . 1,713 miles

Brakes

Pedal pressure, deceleration and equivalent stopping distance from 30 m.p.h.

lb.	g	ft.
25	0.48	62½
50	1.02	29
Handbrake	0.30	100

Fade test

20 stops at ½g deceleration at 1 min. intervals from a speed midway between 40 m.p.h. and maximum speed (=78 m.p.h.)

	lb.
Pedal force at beginning	25
Pedal force at 10th stop	25
Pedal force at 20th stop	25

Steering

Turning circle between kerbs:	ft.
Left	36¾
Right	34½
Turns of steering wheel from lock to lock	3½
Steering wheel deflection for 50 ft. diameter circle	1 turn

Clutch

Free pedal movement . . . . . = 1 in.
Additional movement to disengage clutch completely . . . . . = 4 in.
Maximum pedal load . . . . . =42 lb.

Speedometer

Indicated	30	40	50	60	70
True	27½	37	47½	57½	67
Indicated		80	90	100	110
True		76	85	93	102

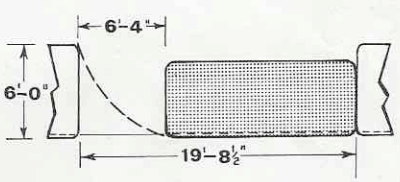
Distance recorder . . . . . 3.5% fast

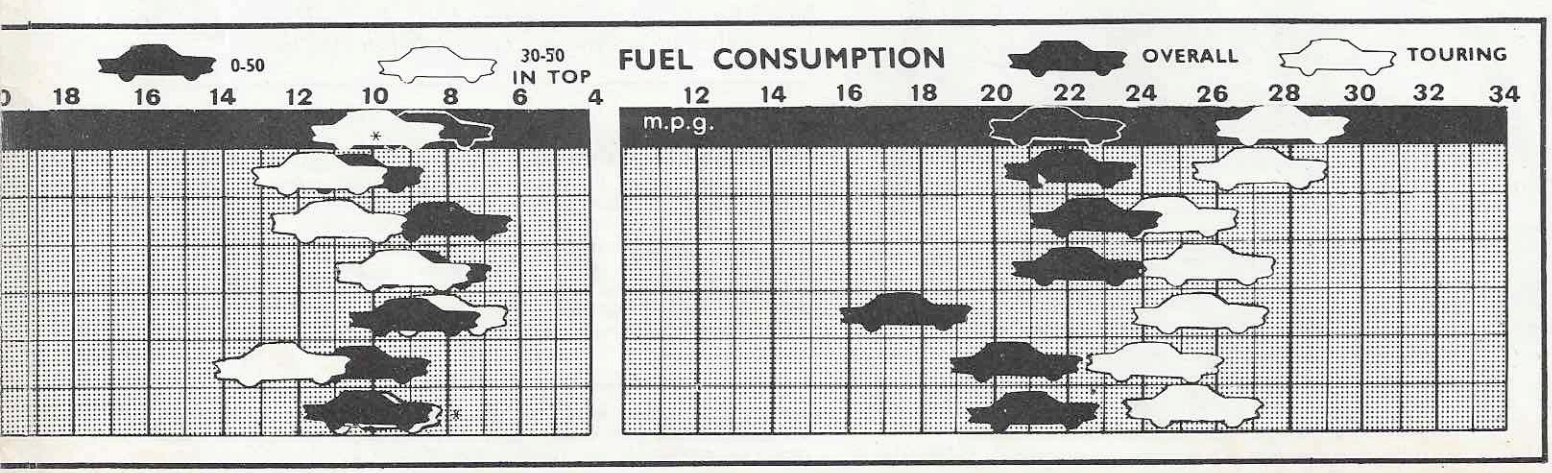
Weight

Kerb weight (unladen with fuel for approximately 50 miles) . . . . . 20.0 cwt.
Front/rear distribution 57/43
Weight laden as tested . . . . . 23.8 cwt.

Parkability

Gap needed to clear 6ft wide obstruction parked in front:





The elegant Bertone body is identical to the one used for the less powerful GT 1300, the main external differences being a badge at the rear, fatter wheels and four headlamps instead of two in a slightly different frontal treatment.

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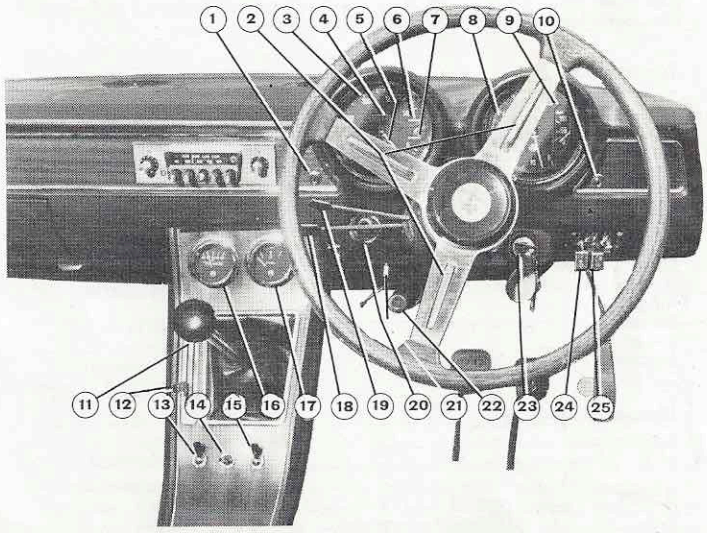
Despite the exceptionally hard driving of our road test in France and Belgium, the overall fuel consumption was as good as 23.4 m.p.g., and like most Continental fast cars the Alfa runs well on second best fuel. The constant-speed consumption figures are also excellent, more than 20 m.p.g. (22 m.p.g. in fact) being obtained at a steady 100 m.p.h., while the touring fuel consumption which is calculated from these values is at 29.5 m.p.g. better than all the other cars in the comparison chart including the aerodynamic Elan +2 and the fuel-injected Peugeot. British driving gave a consumption of 26-27 m.p.g., and thus a range of more than 250 miles from the 10-gallon tank.

Transmission

Decades of participation in racing and other forms of motor sport are apparent in such details as the smooth, progressive action of the throttle and clutch. And the clutch did not slip on our test car as has happened on several Alfas tested previously. By ordinary standards the gearchange was light, precise and a pleasure to use, but compared to those of other Alfas we have tried it was a little stiff and sometimes obstructive, particularly when selecting bottom.

The five ratios offered by the gearbox provide for almost every conceivable contingency. Apart from those lucky enough to do their motoring in such places as the Scottish Highlands or the Welsh mountains, the rest of us in Britain mainly require of a gearbox that it should have a ratio well chosen for overtaking on main roads. This requirement is completely satisfied by third gear

The fair-sized boot accepted 6.8 cu.ft. of our test boxes.



1, main beam warning light. 2, horn buttons. 3, speedometer. 4, mileometer. 5, trip mileometer. 6, heater fan warning light. 7, charge warning light. 8, rev counter. 9, oil pressure gauge. 10, lights tell-tale. 11, air distribution control. 12, heater volume control. 13, wiper switch. 14, panel light switch. 15, heater fan switch. 16, water temperature gauge. 17, fuel gauge. 18, headlamp control switch. 19, indicator stalk. 20, cigarette lighter. 21, trip reset. 22, washer button (foot-operated). 23, ignition/starter lock. 24, choke. 25, hand throttle.

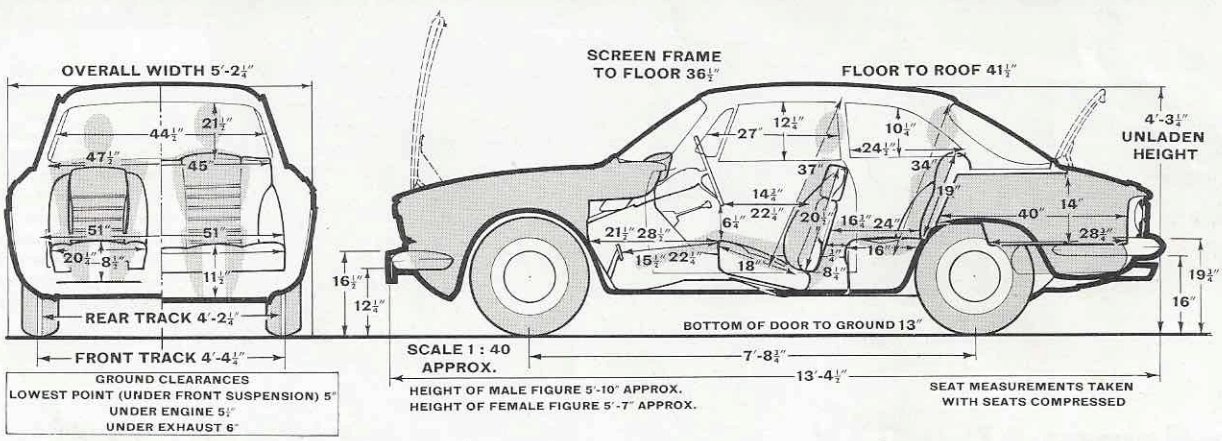
in which the engine will pull very strongly from, say, 40 m.p.h., yet maintain good acceleration right up to nearly 80. Equally, the gearbox is well equipped to fulfil the generally more complex demands of Continental driving. Thus, first gives a quick getaway without being too low; second is for the very twisty sort of mountain road, negotiated in the 30-50 m.p.h. speed range; third is for the less twisty bits, mountainous but with longish straights between the corners; fourth is for fastish main roads; and fifth is for the motorway or very fast and open ordinary roads. Even in fifth, however, there is enough acceleration for a fairly rapid return to a 100 m.p.h. cruising speed after an autostrada baulking.

Handling and brakes

Although the new GTV retains the classic Alfa suspension layout, some detail changes go with the bigger engine. At the front the geometry of the wishbones has been altered to raise the roll centre height, the resultant tendency towards reduced roll and increased front-end weight transfer being partly counteracted by the use of softer front springs to improve the ride. The remainder of the tendency is balanced out by the addition of an anti-roll bar at the rear where, as usual, the live axle is suspended on coil springs and located by lower trailing arms and an upper A-bracket. Wider wheels with 5½J rims instead of 4½J, are fitted all round.

The net result of these changes has been to leave the handling characteristics of the Alfa unchanged in essentials: as before, it has superb—perhaps better—roadholding and takes corners in a stable, mild understeer. There is less roll than on the earlier cars, but the Michelin XAS tyres squealed rather easily, though with a thin, cage-of-mice cheeping rather than a full-blooded howl. The curious Alfa lurching movements when near the limit have also been diminished.

Specification



Front engine (1,779 c.c.) with rear wheel drive; independent front suspension and live rear axle.

Engine

Block material	Aluminium
Head material	Aluminium
Cylinders	4 in line
Cooling system	Water
Bore and stroke	80 mm. (3.15 in.) x 88.5 mm. (3.48 in.)
Cubic capacity	1,779 c.c. (108.4 cu. in.)
Main bearings	5
Valves	Twin overhead camshafts
Compression ratio	9.5 : 1
Carburetters	Two twin-choke Weber 40 DCOE 32
Fuel pump	Fispa mechanical
Oil filter	Full-flow
Max. power (gross)	132 b.h.p. at 5,500 r.p.m.
Max. torque (gross)	137.4 lb. ft. at 2,900 r.p.m.

Transmission

Clutch	Fichtel and Sachs s.d.p. diaphragm
Top gear	0.79 : 1
4th gear	1.00 : 1
3rd gear	1.35 : 1
2nd gear	1.99 : 1
1st gear	3.30 : 1
Reverse	3.01 : 1
Synchromesh	On all forward ratios
Final drive	Hypoid bevel 4.1:1
M.p.h. at 1,000 r.p.m. in:—	
Top gear	21.9
4th gear	17.3
3rd gear	12.8
2nd gear	8.7
1st gear	5.3

Chassis and body

Construction	Unitary

Brakes

Type	ATE discs, servo-assisted
Dimensions	10.7 in. dia. front; 10.5 in. dia. rear.

Suspension and steering

Front	Independent by double wishbones and coil springs with an anti-roll bar
Rear	Live axle on coil springs located by lower trailing arms and an upper A-bracket. Anti-roll bar fitted
Shock absorbers: Front, Rear	Telescopic
Steering type	Recirculating ball
Tyres	165 x 14 Michelin XAS
Wheels	Steel 14 in.
Rim size	5½J

Coachwork and equipment

Starting handle	None
Tool kit contents	Wheelbrace, plug-spanner, screwdriver, Philips screwdriver, pliers
Jack	Screw pillar
Jacking points	Two each side under sills
Battery	12-volt negative earth, 60 amp hour capacity
Number of electrical fuses	10
Headlamps	Four Carello 45/40W
Indicators	Self-cancelling flashers
Reversing lamp	Yes
Screen wipers	Electric two-speed self-parking
Screen washers	Foot-operated electric
Sun visors	Two
Locks:	
With ignition key	Ignition only
With other key	Doors, boot, glove compartment
Interior heater	Fresh air
Upholstery	PVC
Floor covering	Carpet
Alternative body styles	Saloon and Spider

Maintenance

Fuel tank capacity	10.1 galls
Sump	12 pints SAE 20W/40
Gearbox	3 pints SAE 90 EP
Rear axle	2½ pints SAE 90 EP
Steering gear	½ pint SAE 90EP
Coolant	17 pints (2 drain taps)
Chassis lubrication	Every 3,750 miles to 3 points
Minimum service interval	3,750 miles
Ignition timing	3° ± 1° b.t.d.c.
Contact breaker gap	0.014-0.016 in.
Sparking plug gap	Preset
Sparking plug type	Lodge 2HL
Tappet clearances (cold)	Inlet 0.0187-0.0197 in.; Exhaust 0.206 -0.216 in.
Valve timing:	
Inlet opens	37° b.t.d.c.
Inlet closes	61° a.b.d.c.
Exhaust opens	55° b.b.d.c.
Exhaust closes	30° a.t.d.c.
Rear wheel toe-in	None
Front wheel toe-in	3 mm.
Camber angle	0° 20' ± 30'
Castor angle	1° ± 30'
Tyre pressures:	
Front	20 p.s.i.
Rear	24 p.s.i.

Safety Check List

Steering Assembly

Steering box position	Well back
Steering column collapsible	No
Steering wheel boss padded	No
Steering wheel dished	Yes

Instrument panel

Projecting switches	Some on central console
Sharp cowls	No
Padding	Above and below facia

Windscreen and visibility

Screen type	Laminated
Pillars padded	Yes
Standard driving mirrors	Interior
Interior mirror framed	Yes
Interior mirror collapsible	No
Sun visors	Crushable

Seats and harness

Attachment to floor	On slides
Do they tip forward?	Backrests only
Head rest attachment points	Headrest built-in on passenger's seat
Back of front seats	Unpadded
Safety harness	Lap and diagonal
Harness anchors at back	Yes

Doors

Projecting handles	Yes
Anti-burst latches	Yes
Child-proof locks	No, but only two doors

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When trying really hard, however, as on a circuit, the inside wheel will lift and spin at speeds up to 70 m.p.h., producing a mildly disconcerting oversteer. This very seldom occurs during normal driving on the public roads except at low speeds or when accelerating round a corner from a standstill: the tail is then easily provoked but as easily corrected. Such action is facilitated by the light, precise steering which gives good feel as became apparent during our brief period of wet-road running. Over the years this has become a little more direct, now being 3.5 turns for a rather poor lock.

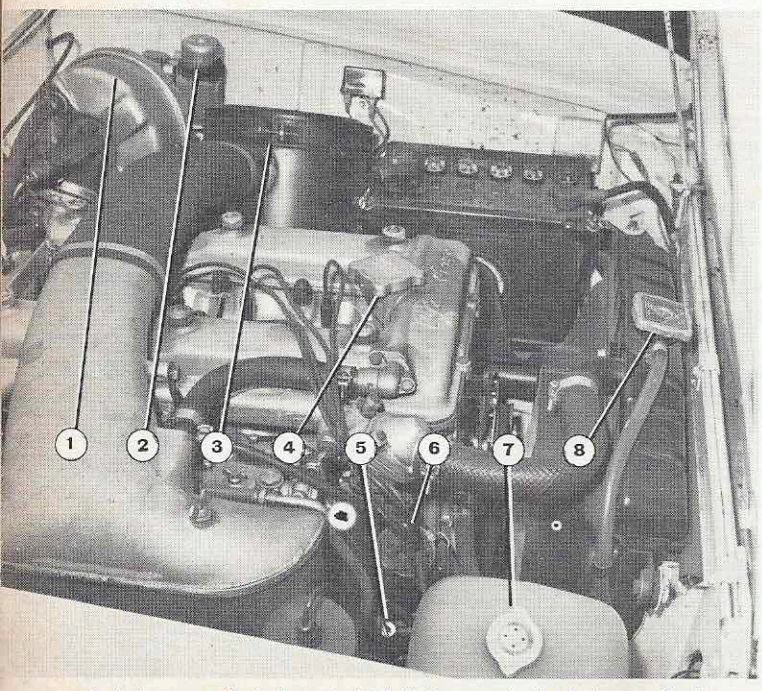
A ball-and-ramp pressure-limiting valve is fitted to the rear brake circuit with the result that the maximum retardation achieved was over 1g. Strong servo assistance allows this to be attained with a pedal pressure of only 50lb., and a little practice is needed to get used to the lightness of the brakes, especially for heeling and toeing. The already adequate margin of fade resistance has been further improved by increasing the diameter of the front brakes slightly; certainly the most rapid driving along Continental roads failed to produce any loss of efficiency.

Comfort and controls

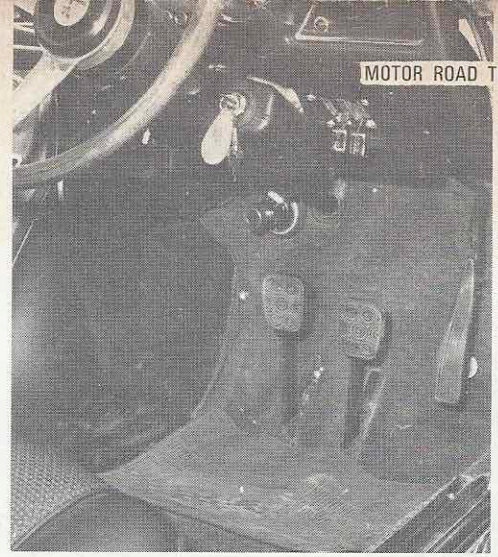
A remarkable feature was the comfortable ride provided even on some of the worst roads to be found in Belgium: concave in cross-section and covered with ruptured pavé, these make the roughest surfaced British roads seem as flat as plate glass by comparison. Nor was much effort ever needed to hold the nearside wheels of the car accurately in the gutter to clear the oncoming camion, even when travelling at 90-100 m.p.h.

Although the driving position is a trifle Italian in layout, the steering wheel being a little too far away and the pedals too close, there is an excellent range of fore-and-aft seat adjustment, the backrest can be reclined and most drivers were able to find a comfortable compromise position. Both lumbar and lateral support are good, but the side supports could be a little closer together. The rear seats are well shaped, but legroom is very limited—almost non-existent on the driver's side when the front seat is pushed most of the way back.

Pedals that are perfectly laid out for heeling and toeing match the well located gearlever, steering wheel and handbrake. Most of the minor functions are controlled by separate indicator and lights control stalks, augmented by a wiper switch at the base of the central console and a wash/wipe button on the floor. Forward visibility is good, and the wipers clear right to the edge of the heavily curved windscreen; but the boot is not visible, even to a tall driver. The four headlamps provide a good blaze of light.



1, brake servo. 2, brake and clutch fluid reservoir. 3, air cleaner. 4, oil filler cap. 5, dipstick. 6, distributor. 7, overflow reservoir cap. 8, radiator cap.



Brake and accelerator are well located for heeling and toeing.

As in our recently tested Lancia, the front seats have cut-outs between the backrest and the side-support rolls, with additional deep transverse grooves to promote the circulation of air round the driver. Unfortunately these features did not eliminate perspiration of the lower back in the hot weather of our test, perhaps because the flow of air into the car is poor: there are no face-level vents and the flow through the heater ducts is moderate even at high speeds. Adequate cooling requires the front windows to be opened a little to let air in, with the rear quarterlights also open to let it out. This increases the already considerable wind noise. Engine noise is very moderate, but some thump and buzz from the tyres is transmitted to the interior.

Fittings and furniture

The matching speedometer and tachometer fitted to the Alfa are probably the best set of instruments fitted to any modern car: they are well located, pleasant to look at and of such a splendid size that the driver can read them out of the corner of his eye when looking straight through the windscreen. They are spoilt by a pair of stops which, with an infuriating disregard for the science of measurement, stick out of their dials at 10 m.p.h. and 500 r.p.m., preventing the needles from reaching zero. The fuel and water temperature gauges at the top of the console are difficult to see when on the move and would be better located on either side of the speedometer and rev-counter.

Oddments can be stowed in a lockable front glove compartment, and on a rear parcel shelf, while the boot will take 6.8 cu.ft. of our test boxes—good for a car of this kind. A cigarette lighter is provided, and there is a single ashtray on the front console with two others at the rear. A particularly ingenious and useful fitting is the wind-up headrest which forms part of the front passenger's seat and allows the occupant to doze comfortably with supported head when the backrest is reclined.

Servicing and accessibility

Servicing is required every 3,750 miles (6,000 km.) at which the main job is a change of engine oil; chassis lubrication is required only for the propeller shaft. Despite a rather crowded bonnet, most of the important service points are easy to get at. Since there were, in 1968, 100 dealers throughout the country, few owners should have difficulty in getting such work done. The pillar type jack is easy to use, but the spare wheel lives under the floor of the boot and could be tedious to remove when fully loaded. **M**

Maintenance summary

Every 3,750 miles (6,000 km.): Change engine oil, check fan belt and timing chain tensions, check sparking plugs, check distributor and crankcase ventilation valve, clean carburetter gauzes and jets; Check level of gearbox, differential and steering box oils, grease propeller shaft.

Every 11,250 miles (18,000 km.): Change gearbox and differential oils, change brake fluid, replace air filter element, check steering geometry.

Every 30,000 miles: Adjust front wheel bearings and repack with grease.

MAKE: Alfa Romeo. MODEL: 1750 GTV. MAKERS: Alfa Romeo S.p.A., via Gattamelata 45, Milan, Italy. CONCESSIONAIRES: Alfa Romeo (GB) Ltd., 164 Sloane St., London, S.W.1.