



Road Test No. 9/60

Make: Fiat

Type: 2100

Makers: S.A. Fiat, Turin, Italy:

Concessionaires: Fiat (England) Ltd., Water Road, Wembley, Middlesex.

Test Data

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CONDITIONS: Weather: Cold and dry, with low barometer and wind rising to 15 m.p.h. during tests. (Temperature 33°-37°F., Barometer 29.3 in. Hg.) Surface: Dry tar macadam and concrete. Fuel: Premium grade pump petrol (approx. 96 Research Method Octane Rating).

INSTRUMENTS

Speedometer at 30 m.p.h. 15% fast
 Speedometer at 60 m.p.h. 8% fast
 Speedometer at 90 m.p.h. 4% fast
 Distance recorder 1% fast

WEIGHT

Kerb weight (unladen, but with oil, coolant and fuel for approx. 50 miles) 23½ cwt.
 Front/rear distribution of kerb weight 56/44
 Weight laden as tested 27½ cwt.

MAXIMUM SPEEDS

Mean lap speed around banked circuit 90.7 m.p.h.
 Best one-way quarter-mile on straight 91.8 m.p.h.

"Maximile" Speed. (Timed quarter mile after one mile accelerating from rest.)
 Mean of opposite runs 88.2 m.p.h.
 Best one-way time equals 90.9 m.p.h.

Speed in Gears

Max. speed in 3rd gear 71 m.p.h.
 Max. speed in 2nd gear 52 m.p.h.
 Max. speed in 1st gear 31 m.p.h.

FUEL CONSUMPTION

31.5 m.p.g. at constant 30 m.p.h. on level.
 29.5 m.p.g. at constant 40 m.p.h. on level.
 26.0 m.p.g. at constant 50 m.p.h. on level.
 23.5 m.p.g. at constant 60 m.p.h. on level.
 20.5 m.p.g. at constant 70 m.p.h. on level.
 18.0 m.p.g. at constant 80 m.p.h. on level.
 15.25 m.p.g. at maximum speed of approx. 91 m.p.h. on level.

Overall Fuel Consumption for 1,066 miles, 52.3 gallons, equals 20.4 m.p.g. (13.9 litres/100 km.).

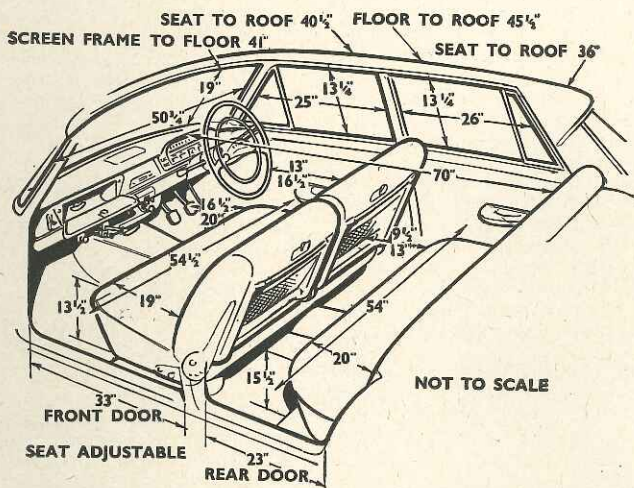
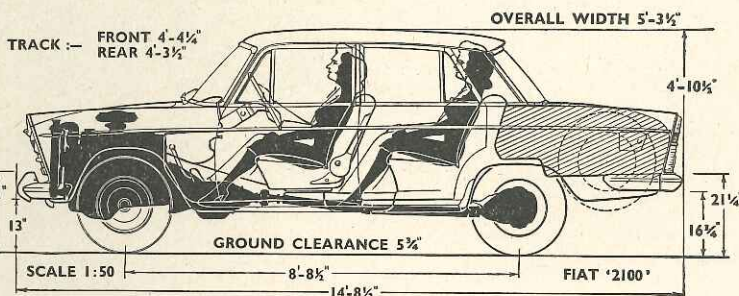
Touring Fuel Consumption (m.p.g. at steady speed midway between 30 m.p.h. and maximum, less 5% allowance for acceleration) 22.2 m.p.g. Fuel tank capacity (maker's figure) 13½ gallons.

STEERING

Turning circle between kerbs:
 Left 33½ feet
 Right 32½ feet
 Turns of steering wheel from lock to lock 3½

BRAKES from 30 m.p.h.

0.95 g retardation (equivalent to 31½ ft. stopping distance) with 55 lb. pedal pressure.
 0.90 g retardation (equivalent to 33½ ft. stopping distance) with 50 lb. pedal pressure.
 0.23 g retardation (equivalent to 131 ft. stopping distance) with 25 lb. pedal pressure.



ACCELERATION TIMES from standstill

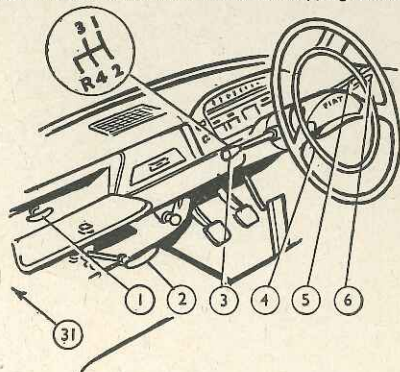
0-30 m.p.h.	4.9 sec.
0-40 m.p.h.	7.2 sec.
0-50 m.p.h.	10.6 sec.
0-60 m.p.h.	15.9 sec.
0-70 m.p.h.	23.6 sec.
0-80 m.p.h.	38.7 sec.
Standing quarter mile	20.0 sec.

ACCELERATION TIMES on Upper Ratios

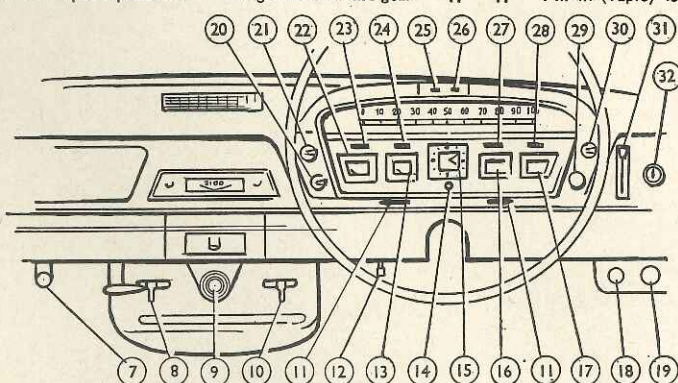
10-30 m.p.h.	Top gear	3rd gear
20-40 m.p.h.	9.9 sec.	6.6 sec.
30-50 m.p.h.	9.3 sec.	6.4 sec.
40-60 m.p.h.	9.2 sec.	6.5 sec.
50-70 m.p.h.	10.1 sec.	8.0 sec.
60-80 m.p.h.	13.8 sec.	13.2 sec.
	23.6 sec.	—

HILL CLIMBING at sustained steady speeds

Max. gradient on top gear	1 in 9.7 (Tapley 230 lb./ton)
Max. gradient on 2nd gear	1 in 6.5 (Tapley 340 lb./ton)
Max. gradient on 3rd gear	1 in 4.9 (Tapley 450 lb./ton)



1, Bonnet catch release. 2, Handbrake. 3, Gear lever. 4, Horn ring. 5, Headlamp switch, dipper and flasher. 6, Direction indicator switch. 7, Hand throttle. 8, Heater and demister air control. 9, Cigar lighter. 10, Heater temperature control. 11, Direction indicator warning lights. 12, Trip resetting knob. 13, Water thermometer. 14,



15, Clock adjuster. 16, Clock. 17, Dynamo charge, headlamp main beam, and rear demister warning lights. 18, Fuel contents gauge. 19, Windscreen wipers switch. 20, Windscreen washer button. 21, Rear window demister control. 22, Heater fan switch. 23, Oil pressure gauge. 24, Trip recorder. 25,

Sidelamp warning light. 26, Handbrake "on" warning light. 27, Distance recorder. 28, Petrol warning light. 29, Panel light rheostat switch. 30, Lights master switch. 31, Cold air control. 32, Ignition and starter switch.

The FIAT 2100

NIMBLE and compact, the Fiat 2100 is also an extremely smart motor-car with crisp but unostentatious styling.



A Lively and Luxuriously Equipped Italian 2-litre Car at a Competitive Price

IN Britain, most imported cars are rather expensive on account of the import duty which is included in their price, but sell because they offer distinctive characteristics of their own. No such bounds can be set to the appeal of the Fiat 2100 which we have recently been sampling on English roads, and which as a smart, roomy and very well equipped 90-m.p.h. car, now retailing at a tax-paid price below £1,400, can be judged on its own all-round merits. In the showroom a lot of value for money can be seen, and road experience does not disappoint.

Primarily, this is quite a large four-seat car which can carry five or six people when need arises, rather than a true six-seater. There is a steering-column gear control and a bench-type front seat, but this seat has its backrest split into two equal halves which are separately adjustable for rake. In the back, adequate knee-room behind a tall driver has been secured by hollowing out the two halves of the front-seat backrest. Neither of these design features encourages one to regard three-abreast seating as the normal way of using this model, even though sufficient interior width is available. Luggage locker capacity is generous, on a flat and easy-to-load rubber covered floor.

Crisp in outline and in detail design, the

four-door saloon body is amongst the most elegant examples of the current Turin vogue, and the Fiat 2100 attracted admiring glances even in the very sober dark-blue paintwork used on our test model. Whilst there is little sign that aerodynamic considerations have influenced its shape, the Fiat's ability to exceed 90 m.p.h. in neutral test conditions (although just over 2,000 miles of running-in had probably not loosened up the engine sufficiently for it to develop its full power) suggests very reasonable efficiency. What can be put on record is that the amount of wind noise inside the car when cruising at motorway speeds is exceptionally and pleasantly small.

Opening any of the four front-hinged doors switches on an interior light, to reveal practical and good-looking furnishing, imitation leather and plastic fabric being used in a very pleasing manner. Although rather firmly cushioned, the two-tone seats

are quite comfortably shaped, there is ample headroom and there are armrests on all four doors and in the centre of the rear compartment. The smart facia has an unusual and rather good décor involving fine horizontal stripes of black and chrome, a hood above it eliminating nocturnal reflections in the windscreen. Opposite the passenger there is a lockable glove box, inside which a lamp lights automatically when the lid is opened. A horizontal strip-type speedometer with effective variable-brightness lighting is easy to read but, on the test car, indicated 5 m.p.h. at a standstill and exaggerated by almost the same amount throughout the speed range. Other instruments comprise a clock, oil-pressure gauge, coolant temperature indicator and fuel contents gauge, as well as trip and total distance recorders. A plethora of warning lights includes one which operates when the handbrake is applied, as well as warnings of inadequate oil pressure or low fuel level which supplement the gauge readings.

There are a lot more "luxury" fittings to be noted, such as a horn ring, an interior mirror of dimming pattern, windscreen washing sprays, a cigar lighter, map pockets

ACCESSIBILITY under the bonnet is good. A useful feature is the variable-temperature air intake to the carburetter, a simple butterfly valve enabling either cold air to be drawn through a forward-facing pipe or heated air from above the six-branch exhaust manifold.

In Brief

Price £987 plus purchase tax £412 7s. 6d.
equals £1,399 7s. 6d.

Price with 1,795 c.c. engine (including purchase tax), £1,346 19s. 2d.

Capacity 2,054 c.c.

Unladen kerb weight ... 23½ cwt.

Acceleration:

20-40 m.p.h. in top gear ... 9.3 sec.

0-50 m.p.h. through gears 10.6 sec.

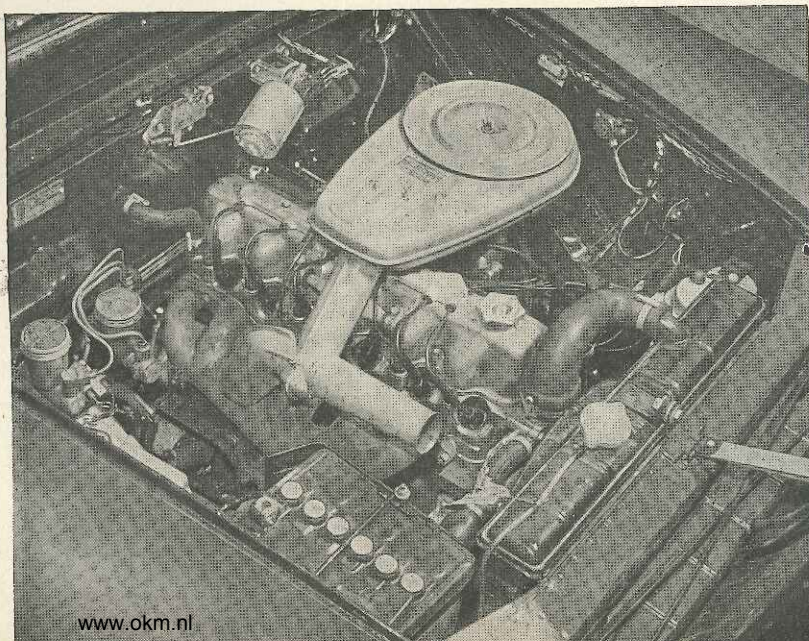
Maximum direct top gear gradient 1 in 9.7

Maximum speed 90.7 m.p.h.

"Maximile" speed 88.2 m.p.h.

Touring fuel consumption ... 22.2 m.p.g.

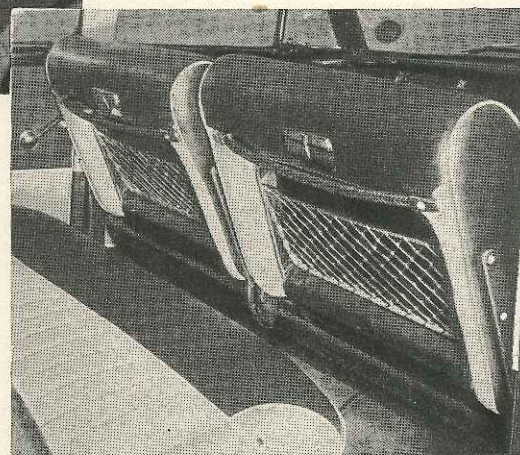
Gearing: 16.6 m.p.h. in top gear at 1,000 r.p.m.; 34.4 m.p.h. at 1,000 ft./min. piston speed.





THE FIAT 2100

CONSIDERABLE comfort for four, or reasonable room for six, is provided on the Fiat's two bench seats, the front seats having individually adjustable squabs which can be lowered to a reclining position. The finish and fit of upholstery, trim and "hardware" is extremely good for a quantity-produced car and all give the impression of being hard-wearing and long-lasting. Pull-straps, ashtrays and parcel nets are provided on the recessed backs of the front seats, and elsewhere.



and nets, an automatic under-bonnet light and a reversing lamp. Interior heating equipment of fresh-air pattern (with the air intake just below the windscreen) is provided as standard, and although a rather noisy fan (needed only at low car speeds) and slowness of the heater in taking effect on a frosty morning can be criticized, the heater is both powerful and controllable to provide only gentle warmth in temperate weather. A rare and sensible refinement is the provision of ducts through which fan-recirculated air can be blown to de-mist the rear window.

Trimmings such as these will certainly attract buyers to the Fiat 2100, but they do not by any means represent its sole attractions. In particular, the 2,054-c.c. six-cylinder engine proves itself a notably versatile performer. The automatic choke on a twin-barrel Weber downdraught carburetter was set to give only a limited degree of mixture enrichment, and after standing out of doors through a night of hard frost the car started best if (contrary to instruction manual advice) it was primed with one or two "shots" of petrol from the accelerating pump before the starter was operated: once running, the engine had a 100% reliable tick-over at any time or temperature.

Although this engine is of quite modest dimensions, good torque and the car's kerb weight of less than 24 cwt. together make for remarkably good performance. Acceleration from rest to 50 m.p.h. in only 10.6 sec. is a measure of the Fiat's notable liveliness when the gears are used to best

advantage. Almost more impressive is the rapid top-gear acceleration which is on call over a wide range of speeds, instanced by 10 to 30 m.p.h. pick-up in 9.9 sec. or 50 to 70 m.p.h. overtaking acceleration in only 13.8 sec.

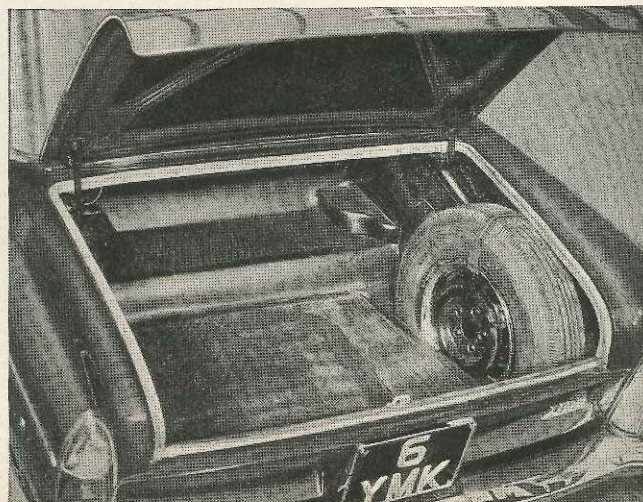
Despite this lively top-gear performance, which contributes a great deal to briskly effortless travel on give-and-take roads, the Fiat never becomes fussy. At its maximum speed of over 90 m.p.h. the engine is running at around 5,500 r.p.m., yet this is a quiet pace at or very close to which one is tempted to cruise on a modern highway. At the opposite end of the range, flexibility down to 15 m.p.h. in top gear is provided by the silkily smooth engine, and although late in the test some hesitancy at low r.p.m. developed, this was probably due only to dirt getting into the carburetter when consumption testing equipment was fitted.

Mated to the Fiat engine is a four-speed gearbox with synchromesh on all the forward ratios. Some drivers found the steering column control rather clumsy to use, but the synchromesh was of completely clashproof effectiveness. At low speeds, the indirect gears are not silent, but the amount of noise which they make does not increase markedly with speed and 60-65 m.p.h. in third gear is a much quieter pace in the Fiat than in most other cars. With rather delicate use of the clutch, a start from rest on a 1-in-3 test hill is just pos-

sible, and the handbrake holds the car on this altogether exceptional slope. During our acceleration tests, we repeatedly ran up to 70 m.p.h. in third gear (virtually 6,000 r.p.m.) which is beyond the rev. limit indicated on the speedometer dial and beyond the speed at which it is quicker to use top gear, but despite such treatment the engine used no measurable quantity of oil whilst we were driving the Fiat.

An unconventional layout of suspension has been chosen for the 2100, using torsion bars at the front, and at the rear coil springs in conjunction with a rigid axle located by what are in effect laminated flexible torque arms. In extreme conditions, this suspension works well, giving smooth travel on a good modern highway

EXCELLENT rearward visibility is provided by the very deep rear window; the neat, angular tail houses a truly cavernous boot which has a flat, rubber-carpeted floor that is "stepped" to clear the axle.



EAGER, rakish lines, good proportions and a fine sense of balance in the design make the four-door Fiat 2100 one of the most attractive modern cars.

and also quite effective insulation against severe shocks on very bad surfaces indeed. On the surfaces of mediocre quality which are frequently encountered however, as when motoring briskly along an English secondary road, there is a disappointingly large amount of up-and-down motion of the car, evident particularly but not only to rear seat passengers.

Fast cornering in the Fiat is apt to be accompanied by a certain amount of audible protest from the front tyres, but does not cause much body roll or any instability. First impressions of the steering are that it is an almost frictionless and silkily smooth mechanism, but freedom from road shock has been obtained at the expense of some loss of precision. Whilst it proved viceless at all times, this is not by any means a "sports" type of chassis. Despite the use of a good deal of rubber insulation at key points, a fair amount of road noise enters the body over cobbles and certain other road surfaces. Commendable is the solid way in which the doors close, although at times it was difficult to wheedle a key into their external locks.

Built within sight of the Alps, any Fiat is expected to have powerful and fade-resistant brakes, the 2100 model being no exception. An unusual feature of the system is that a Baldwin booster is used in the hydraulic pipeline to the two-leading-shoe front brakes, giving a quick take-up of clearance and gentle initial application before full front braking effort is applied. Very moderate pedal pressures suffice to lock the wheels on a dry road, as witness the best retardation of 0.95g with only 55 lb. pedal pressure. The rather rapid build-up of brake response as the booster takes effect on the self-wrapping front brakes needs getting used to however, and



the test car's brakes were at times apt to pull sideways slightly, our impression being that perhaps exaggerated emphasis had been put on low pedal pressures in the design of this system.

Sitting up where he has a commanding view forwards over the low bonnet, and looking through a broad curved-glass windscreen which is flanked by sensibly thin pillars, the driver has excellent all-round vision in fine weather: on a wet or muddy day, the windscreen wiper arcs allow a large area in the centre of the glass to remain obscured. The control layout has some unusual features which are soon found to be highly practical, notably a fingertip lever which when a master-switch on the fascia is turned on controls sidelamps, dipped or main headlamps or which can be squeezed at any instant to flash a dipped-headlamp warning of approach. When the ignition is switched off, the parking lamps go out unless the key is turned to a separate "parking" position before being removed. In an age

when electrical wiring on cars is often rather skimpy and sometimes completely unfused, it is reassuring to know that, amongst the eight fuses used in this system, four fuses protect the main and dip filament of each headlamp separately from one another. Looking at inconspicuous details of this nature, at under-bonnet control linkages or at door-stops or such-like pieces of mechanism, one gains a strong impression that this Fiat perpetuates an engineering tradition into an era when most companies make roughly stamped pieces of sheet metal perform near-miracles. Detail quality, useful size, and the smoothly rapid performance given by a six-cylinder engine (which showed nearly 20 m.p.g. hustling along M1 or around London, and 23-24 m.p.g. on country roads) make the Fiat 2100 an attractive proposition for many British motorists, and a very serious rival for our own medium-sized cars in export markets.

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Specification

Engine	
Cylinders	6
Bore	77 mm.
Stroke	73.5 mm.
Cubic capacity	2,054 c.c.
Piston area	43.26 sq. in.
Valves	Inclined o.h.v. operated by pushrods and rockers
Compression ratio	8.8/1
Carburetter: Weber 34 DAS 1 twin-choke downdraught with automatic choke.	
Fuel pump	Mechanical
Ignition timing control	Centrifugal and vacuum
Oil filter	Centrifugal and by-pass (paper cartridge) units
Max. power (gross)	95 b.h.p. (net, 82 b.h.p.)
at	5,000 r.p.m.
Piston speed at max. b.h.p.	2,400 ft./min.
Transmission	
Clutch	Single dry plate (hydraulic actuation)
Top gear (s/m)	4.30
3rd gear (s/m)	6.03
2nd gear (s/m)	8.15
1st gear (s/m)	13.82
Reverse	12.90
Propeller shaft	Divided open
Final drive	10/43 hypoid bevel
Top gear m.p.h. at 1,000 r.p.m.	16.6
Top gear m.p.h. at 1,000 ft./min. piston speed	34.4
Chassis	
Brakes	Hydraulic, 2 l.s. at front
Brake diameters	10 in.
Friction lining area	194.6 sq. in.
Suspension:	
Front: Torsion bars, ball jointed transverse wishbones and anti-roll torsion bar.	
Rear: Rigid axle, coil springs, Panhard rod, and laminated springs acting as torque arms.	
Shock absorbers	Telescopic
Steering gear	Worm and roller
Tyres	5.90-14

Coachwork and Equipment

Starting handle	No
Battery mounting	Alongside engine on right
Jack	Bevel geared pillar type
Jacking points	4 external sockets in body sides
Standard tool kit: Jack, wheel chock, wheel nut spanner, screwdriver, Phillips screwdriver, 4 double-ended spanners, carburetter spanner, sparking plug spanner, punch, pliers two bags for large and small tools.	
Exterior lights: 2 headlamps, 2 sidelamps/flashers, 2 stop/tail/reversing lamp clusters, 2 number plate lamps.	
Number of electrical fuses	8
Direction indicators: Self-cancelling flashers, white at front, amber at rear, amber repeaters on body sides.	
Windscreen wipers	Electrical two-blade, self parking
Windscreen washers	Manual pump type
Sun visors	Two, universally pivoted
Instruments: Speedometer with total and decimal trip distance recorders, oil pressure gauge, coolant thermometer, fuel contents gauge, clock.	

Warning lights: Dynamo charge, oil pressure, low fuel level, handbrake on, parking lights on, rear de-mister fan on, turn indicators, headlamp main beam.

Locks:
With ignition key ... Ignition/starter switch
With other keys ... Either front door, glove box, luggage locker, petrol filler

Glove lockers ... One on fascia, with lock
Map pockets ... One in each front door
Parcel shelves ... One behind rear seat
Ashtrays ... One on fascia, two behind front seats
Cigar lighters ... One on fascia
Interior lights: One combined with driving mirror, two in rear compartment, with courtesy switches on all doors.

Interior heater: Fresh air type with screen demisters; also separate rear window demisting fan.

Car radio Optional extra
Upholstery material: Two-colour plastic fabric
Floor covering ... Carpet with rubber insets
Exterior colours standardized: Two single colours, nine duotones.

Alternative body styles: Four-door station wagon, four-door "special sedan".

Maintenance

Sump: 7½ pints, plus 1½ pints in filter, S.A.E. 30. (Use S.A.E. 50 for average temperatures above 90° F., or S.A.E. 20 for average temperatures below freezing.)	
Gearbox	3½ pints, S.A.E. 90 E.P. gear oil
Rear axle	2½ pints, S.A.E. 90 E.P. gear oil
Steering gear lubricant	S.A.E. 90 E.P. gear oil
Cooling system capacity	15 pints (2 drain taps)
Chassis lubrication	By grease gun every 1,500 miles to 12 points
Ignition timing: 5° b.t.d.c., static for petrol of 92 R.M. octane rating (variable to suit fuel quality)	
Contact-breaker gap	0.015—0.017 in.
Spark plug type	14 mm. Marelli CW 230 A or Champion L7
Spark plug gap: Marelli, 0.020—0.024 in. Champion, 0.024—0.028 in.	

Valve timing: (set with 0.018 in. tappet clearance) Inlet opens 20° b.t.d.c. and closes 60° a.b.d.c.; Exhaust opens 60° b.b.d.c. and closes 20° a.t.d.c.

Tappet clearances (cold):
Inlet and exhaust, 0.008 in.
Front wheel toe-in (fully laden):
0.178 in.—0.357 in.

Camber angle 1°
Castor angle 1° 30'
Steering swivel pin inclination 6° 30'

Tyre pressures (according to speed and load):
Front 22—23½ lb.
Rear 24—27 lb.

Brake fluid: Fiat blue, or equivalent heavy-duty non-mineral brake fluid.

Battery type and capacity 12-v., 40 amp. hr.