

131 mirafiori

FIAT

***Fiat 131 mirafiori:
the new 1300/1600.
A great car***

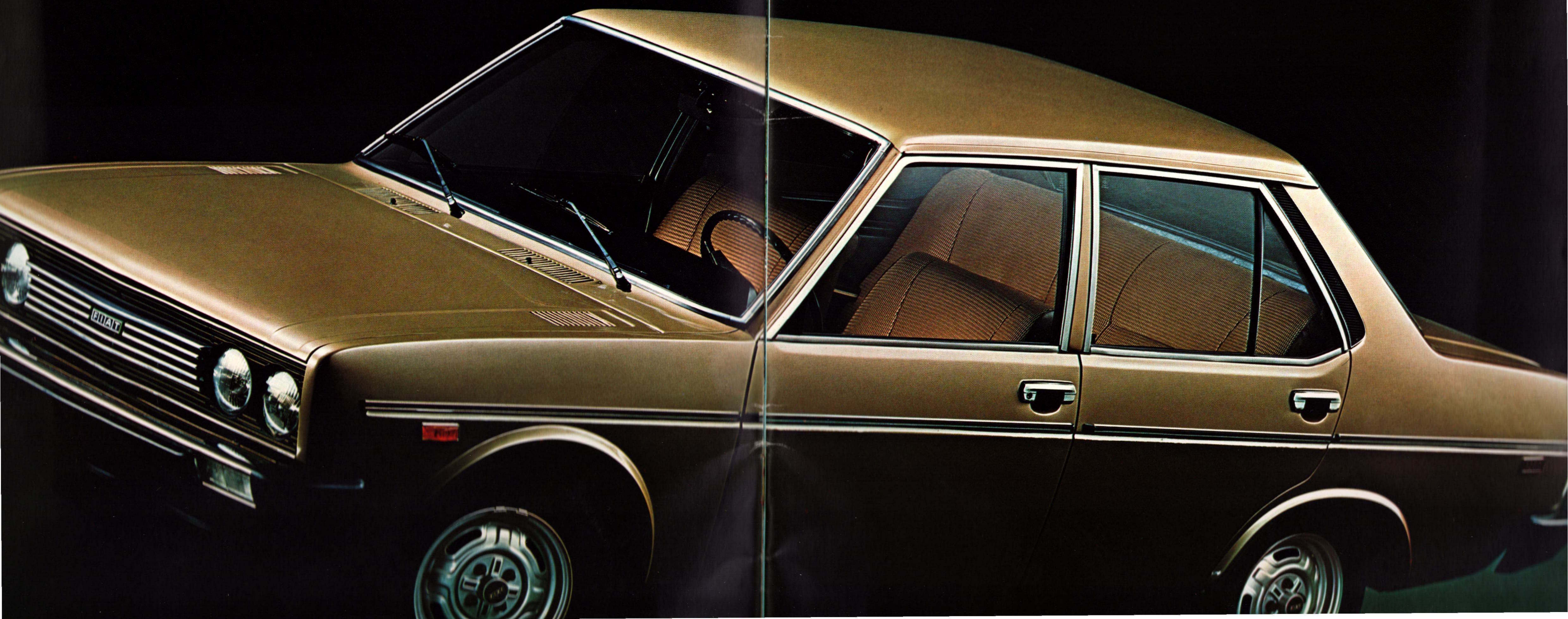
*Produced in 11 versions.
Three types of bodywork: 2-door
saloon, 4-door saloon and 5-door
estate car.
Standard and Special.
Two engine sizes: 1300 and 1600.
Wide choice of optional extras.*



***Reliability
and easy servicing***

Fiat's long experience in the car field dictated the decision to adopt the most tried and tested, the safest and the most appropriate engineering features for a car in this class; front engine, rear wheel drive, disc front and drum rear brakes with servo assistance and braking effort compensator, McPherson front suspension and live axle rear suspension.

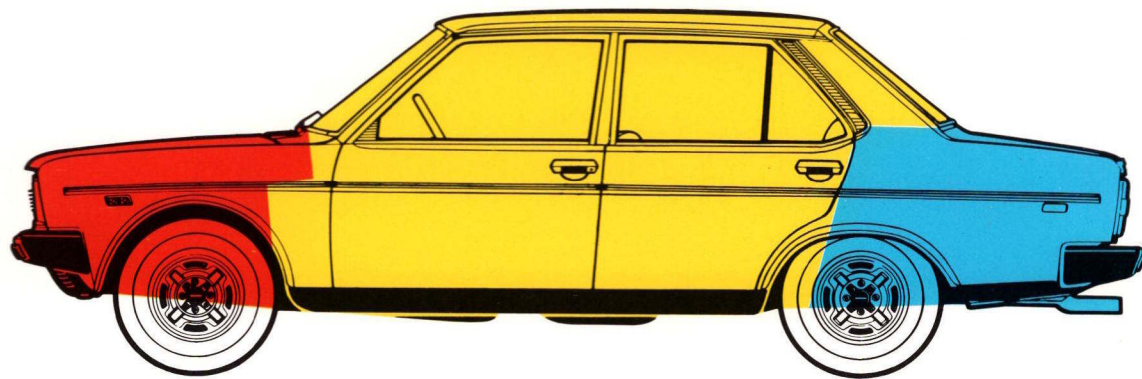
With a car like this, breakdowns are rare and repairs are easy. We'll see why later.



The layout chosen for the 131 mirafiori

Front engine and rear wheel drive

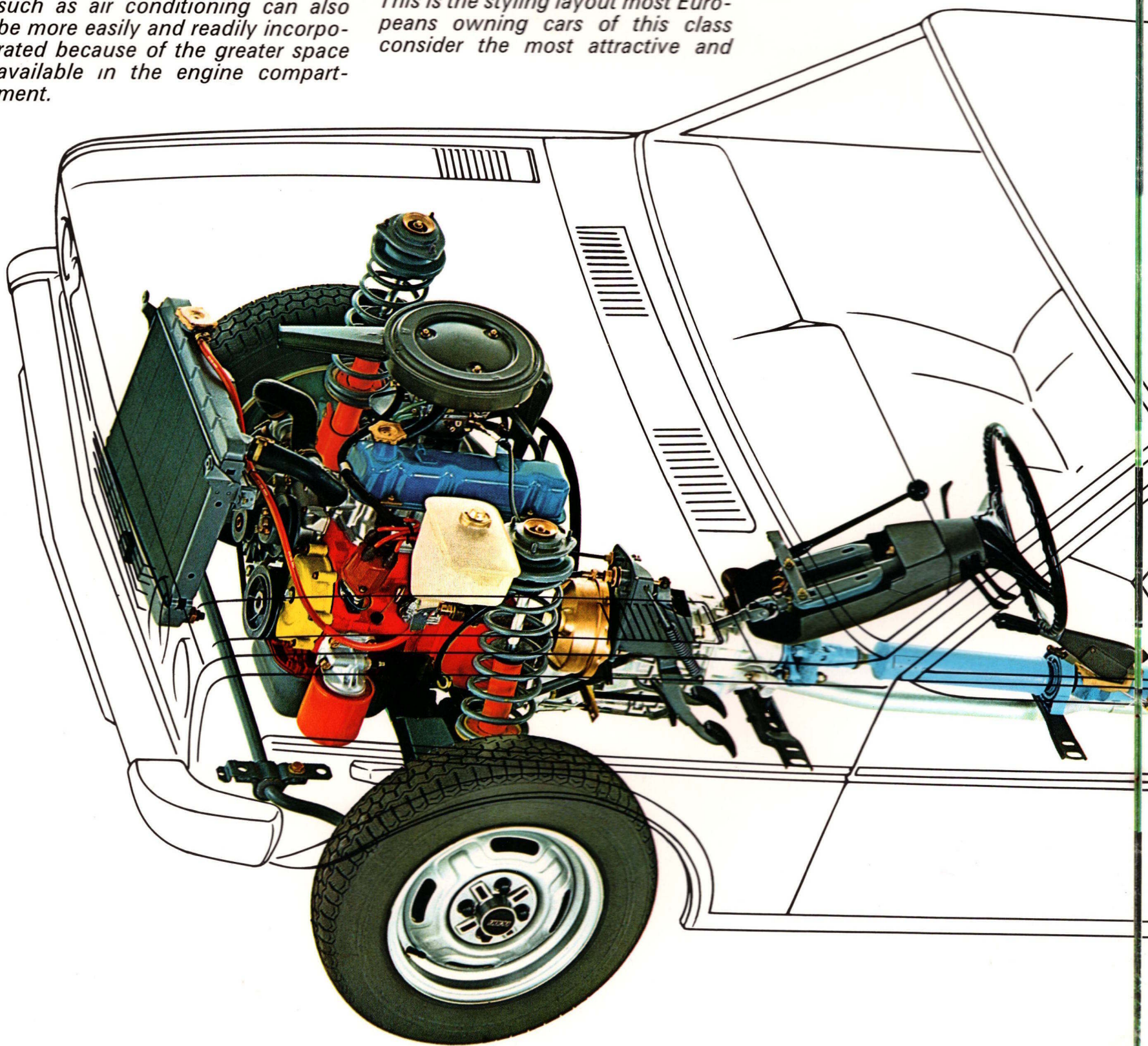
The classic layout was chosen because it is the most appropriate arrangement for the dimensions and weight of the 131 mirafiori. It has the practical advantage of permitting larger power units and quantity-produced automatic transmissions of proven reliability to be fitted. Furthermore, optional equipment such as air conditioning can also be more easily and readily incorporated because of the greater space available in the engine compartment.



Classic three box styling (engine, passenger and luggage compartments)

This is the styling layout most Europeans owning cars of this class consider the most attractive and

practical. Thanks to the 131's dimensions, our designers have been able to provide spaciousness in generous proportions, a lot of room to spare in the engine compartment, a big luggage compartment and a harmonious, slender, overall line.



McPherson front suspension and live axle rear suspension

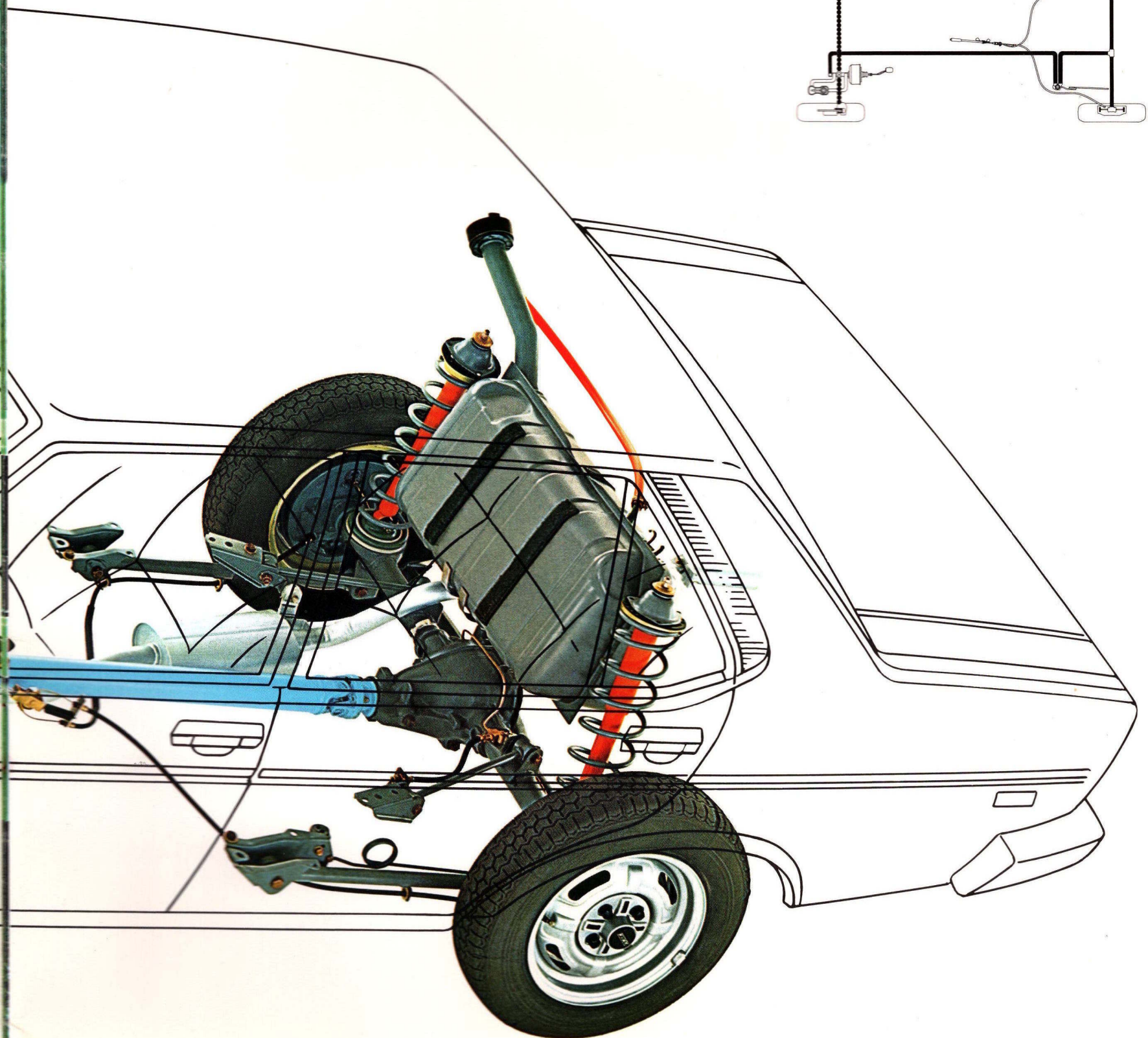
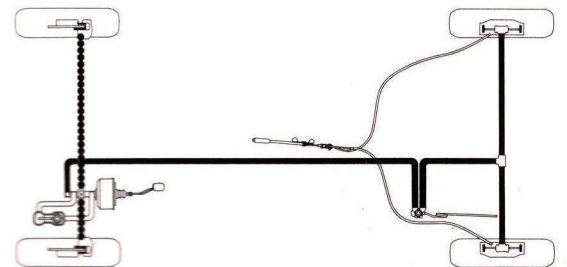
The criteria of maximum strength and simplicity of maintenance underlying the entire 131 mirafiori project made this arrangement the natural choice. It is one that has been tested and proved on millions of Fiat cars.

The McPherson type front suspension is not only structurally simple but by eliminating a number of joints, it transmits less stress through the body mountings. Thus durability and insulation from vibration and road noise both benefit.

The live axle rear suspension is also desirable in a car like the 131 mirafiori because it requires practically no maintenance at all, vastly prolongs tyre life and prevents much of the final drive and transmission noise from reaching the passenger compartment.

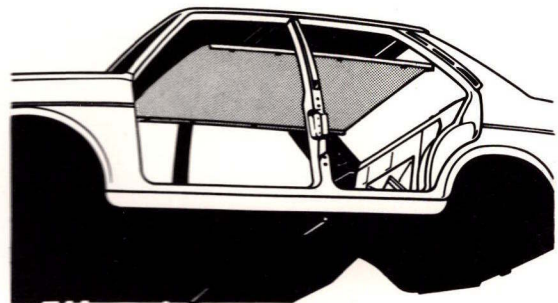
Disc front and rear drum brakes

The braking system is of mixed type: disc front brakes and drum rear brakes with dual independent circuits. Even in the event of a failure in one circuit, braking action is available on one of the two axles. The system is supplemented by a vacuum servo and a braking effort compensator in the rear wheel circuit. In the interest of easy maintenance the owner himself can adjust the hand brake from inside the car, and the clutch from the engine compartment.

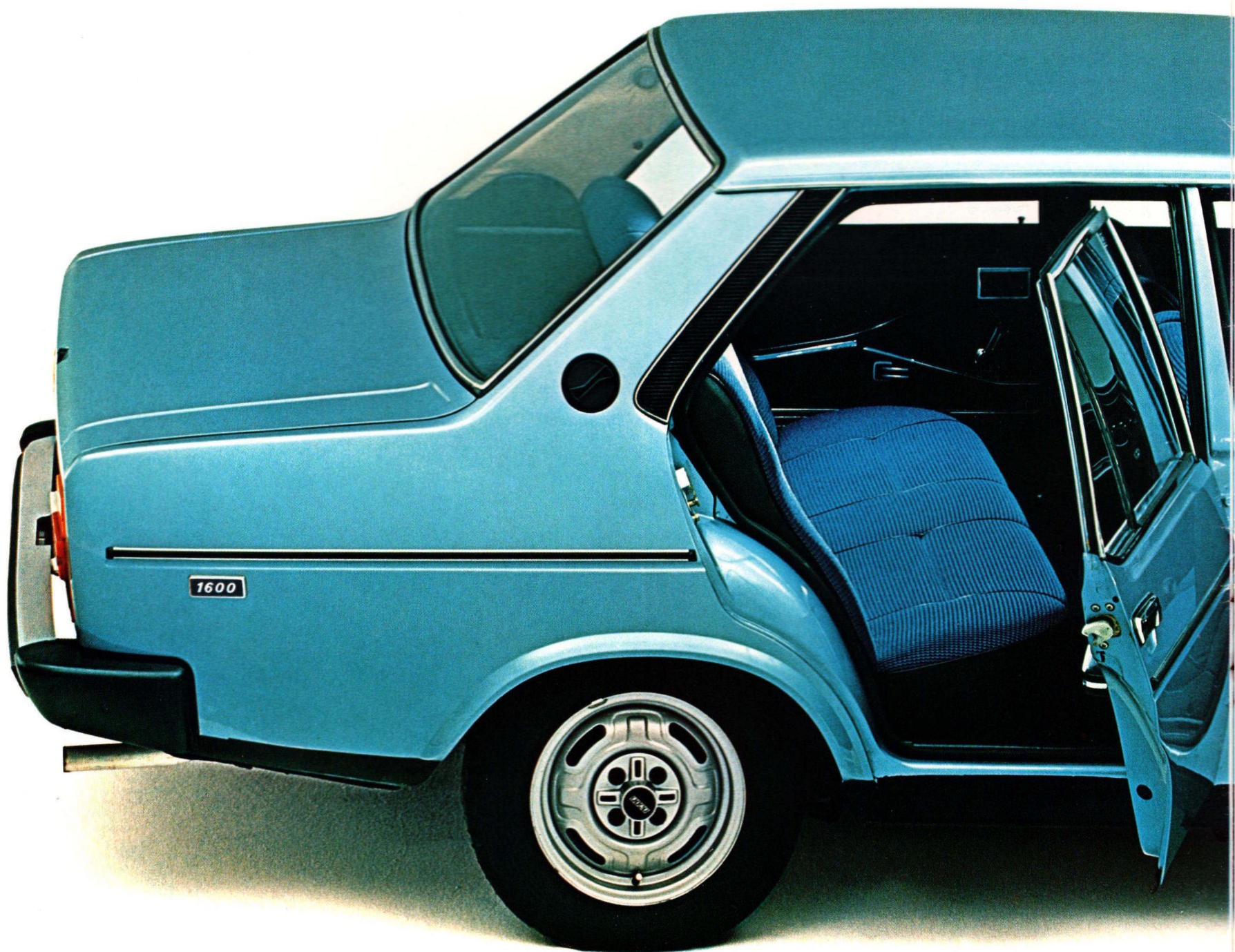


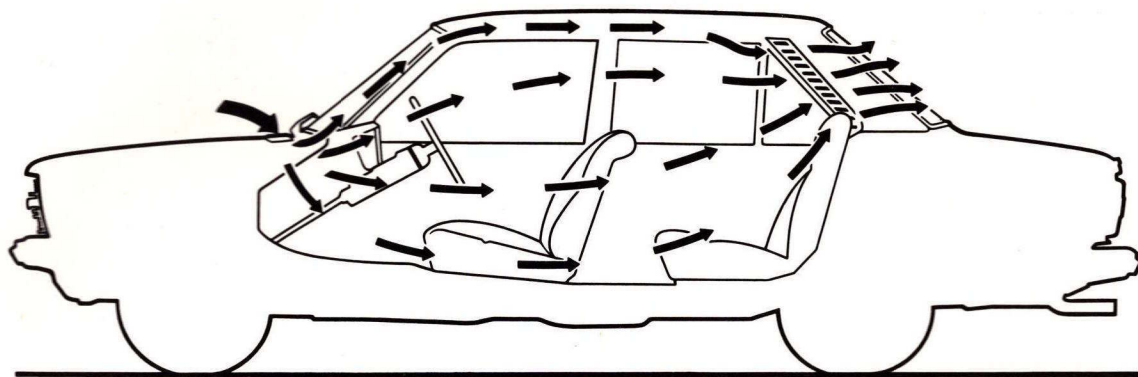
**A generously
spacious, quiet
and stable car**

The 131 mirafiori seats 5 comfortably. By curving the doors and side windows, exceptional interior width has been obtained for the seats. The widest in this class of car. Thorough sound-proofing of the passenger compartment, the flexibility of the engines, which work efficiently at relatively low revs, and the choice of the most appropriate type of suspension and shock-absorber settings guarantee superior ride comfort and road-holding.



To improve insulation, sound-proofing and passenger safety, the whole roof area is covered with a 2 cm ($\frac{3}{4}$ in) thick panel of impact absorbing expanded polyurethane within which all the ribbing and framework are recessed.





A car that combines dash with low fuel consumption

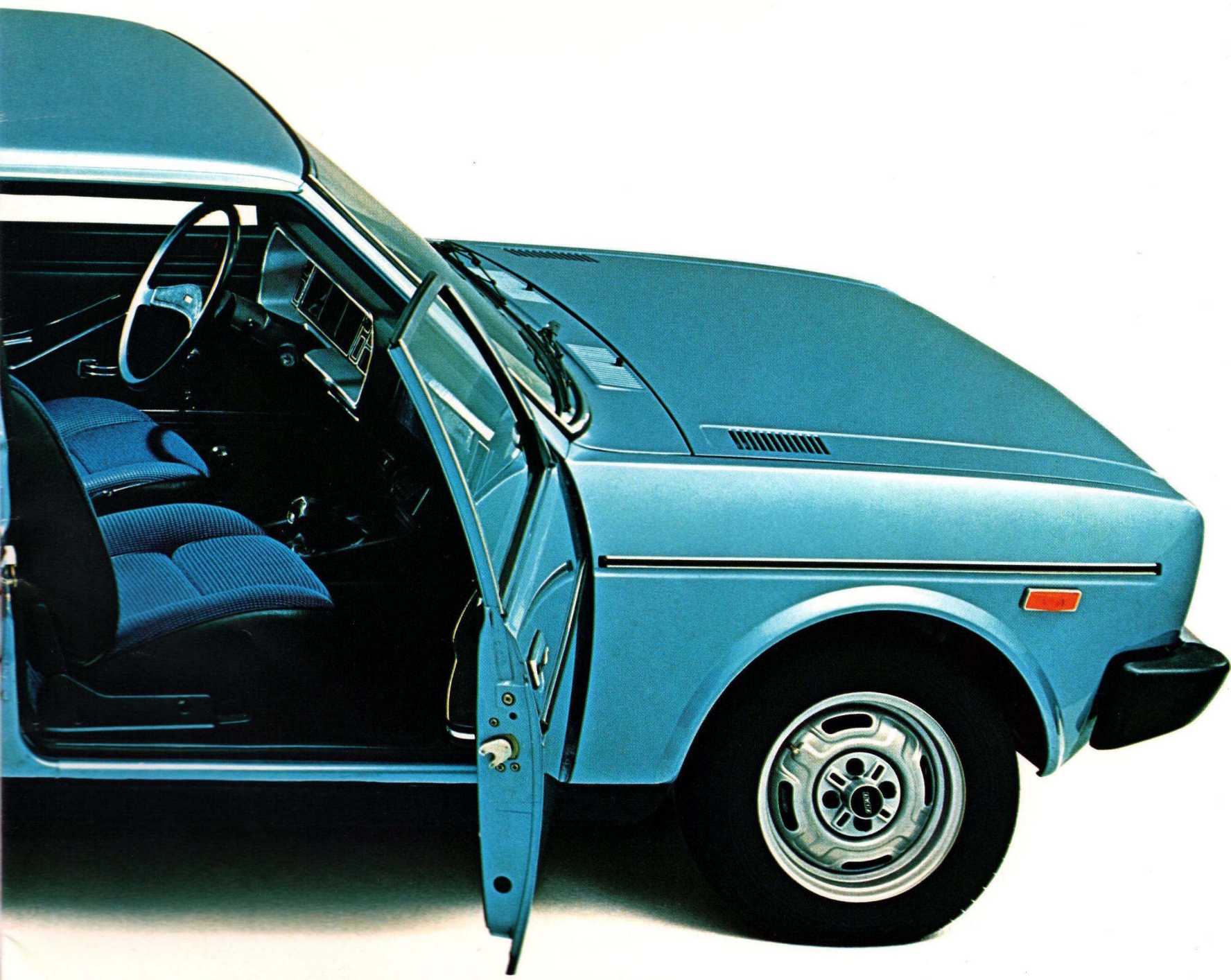
To provide those qualities of acceleration which make the car agile in heavy traffic or when overtaking, and pleasant to drive at all times, the 131 mirafiori is fitted with engines which produce their maximum torque at low revs.

The exceptional flexibility of these engines helps keep fuel consumption low, because frequent gear changing is unnecessary, and the less you change gear, the less fuel you use.

Fuel economy is also helped by the low drag characteristics of the 131 mirafiori, the aerodynamics of which were wind tunnel tested.

The rear pillars contain large matt black finned grilles incorporating the outlet vents through which air circulating in the passenger compartment is exhausted: the through-

put of air has been so skilfully calculated that a long journey can be completed in comfort with all the windows tightly closed.





131 mirafiori interior:
Special versions

A high standard of finish and fittings characterizes the interior of the 131.

The large wrap-round seats are

deeply padded, with stain-proof cloth and leathercloth upholstery. Alternatively, quality leathercloth upholstery is available. Oddments

tray on transmission tunnel. Loop-ed pile carpeting.



**131 mirafiori interior:
standard versions**

Only by direct comparison with the Special can the differences be seen, for the standard version offers a level of finish to satisfy the most exacting demands. The seats are

similar to those on the Special as regards padding and wrap-round design; they are upholstered in leathercloth with the central working surfaces in stain-proof fabric.



Leathercloth upholstery is also available on this version. Looped pile carpeting.

In the Special versions, the front seats have reclining back rests. Note the location of the central electrical control box below the dashboard for easy circuit testing

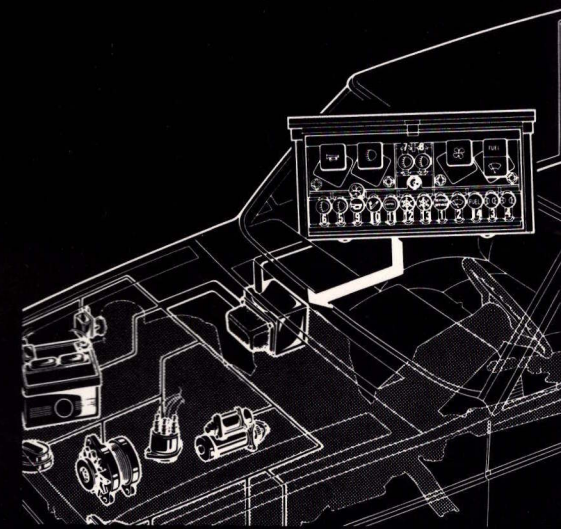
and repair from inside. This practical feature is the heart of the advanced electrical system fitted on all 131 mirafiori models.



Dashboard of standard versions

The dashboard is of modern design and is made of deformable material for safety purposes. A complete range of instruments is provided: speedometer, mileage recorder, petrol gauge, water temperature gauge and warning lights. The layout of the instruments and dial faces, and the form of the surrounding cowlings prevent any danger of irritating reflections.

The heater controls are located in the same area of the instrument panel in a position that is readily accessible and easily seen by the driver.



Central electrical control box under the dashboard

The extremely advanced electrical system contains an innovation of considerable practical importance: a central box located below the dashboard grouping relays, fuses and three multiple sockets connecting the unit with the rest of the system.

There are evident advantages by way of reliability — each circuit in the system can be easily tested prior to assembly — ease of maintenance — rapid fault finding — and convenience for emergency repairs (e.g. when it is raining).

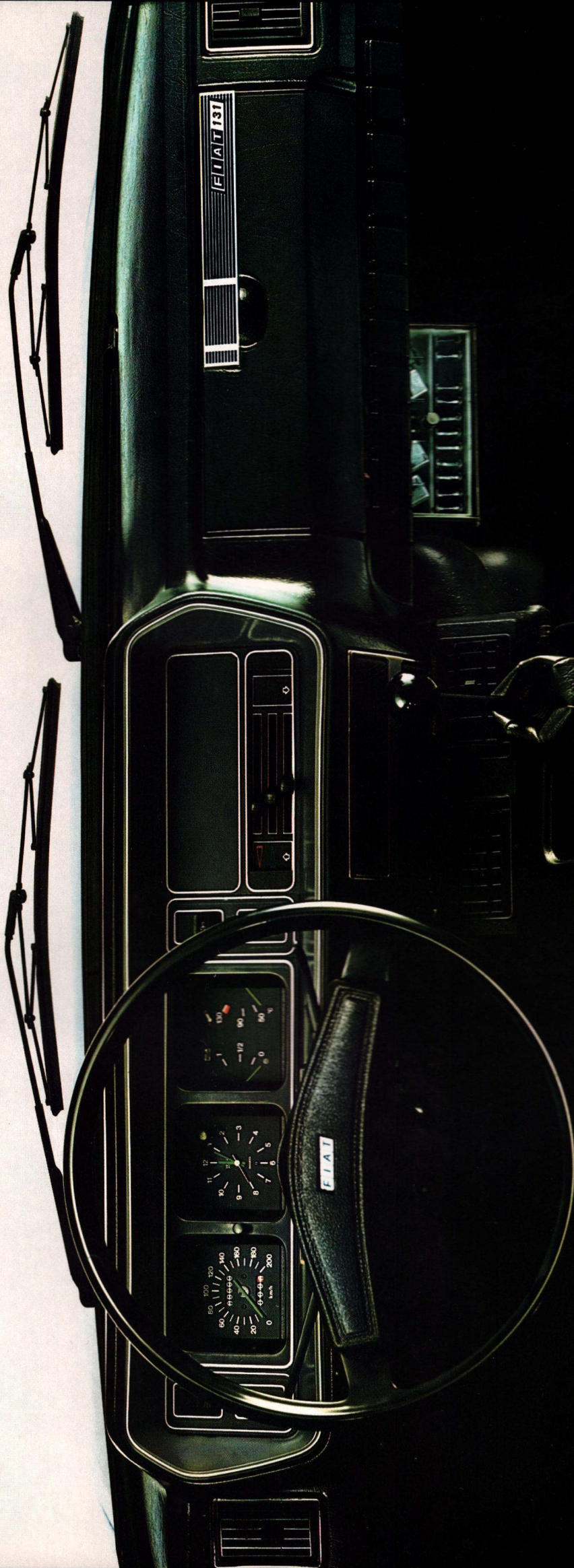
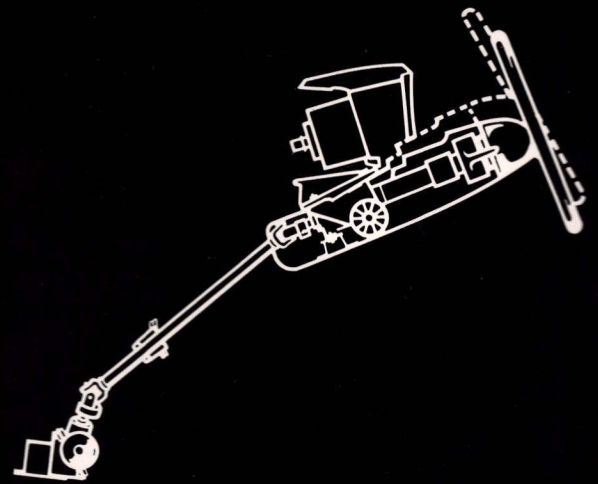
Moreover, the electrical connection between the engine and passenger compartments can be made with only one hole in the bulkhead so that the interior is better insulated from noise and heat.

Dashboard of Special versions

Principal variations compared with standard versions: steering wheel with padded hub and adjustable height — three separate square instruments (instead of a semi-circular group clustered into a single dial), high precision quartz clock, instrument readings and ventilation system controls illuminated by optical fibres, oddments tray on transmission tunnel.

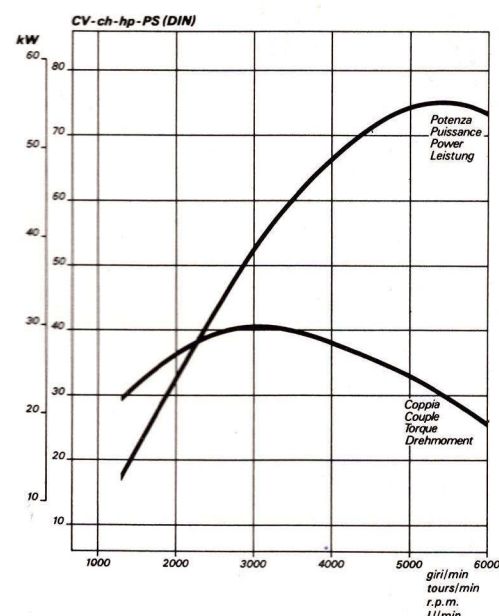
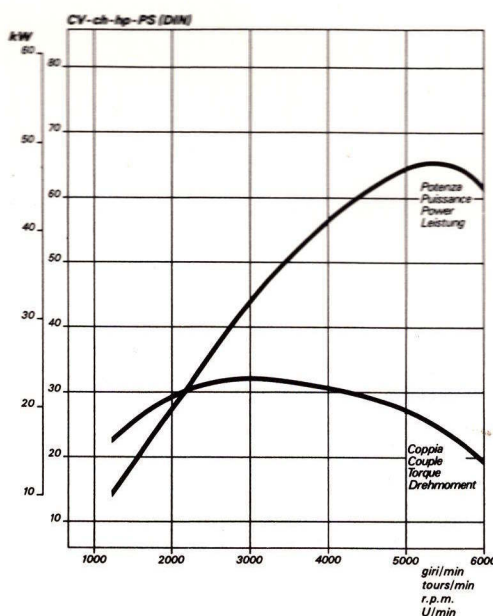
Steering wheel adjustable for height

Easy to lock at the required height by turning a knob on the side of the column. The steering wheel can thus be adapted to the driver's stature and driving style. The made-to-measure, convenient driving position is both comfortable and safe because the driver is able to react more quickly under all conditions. The adjustable steering wheel is fitted on the Special versions.



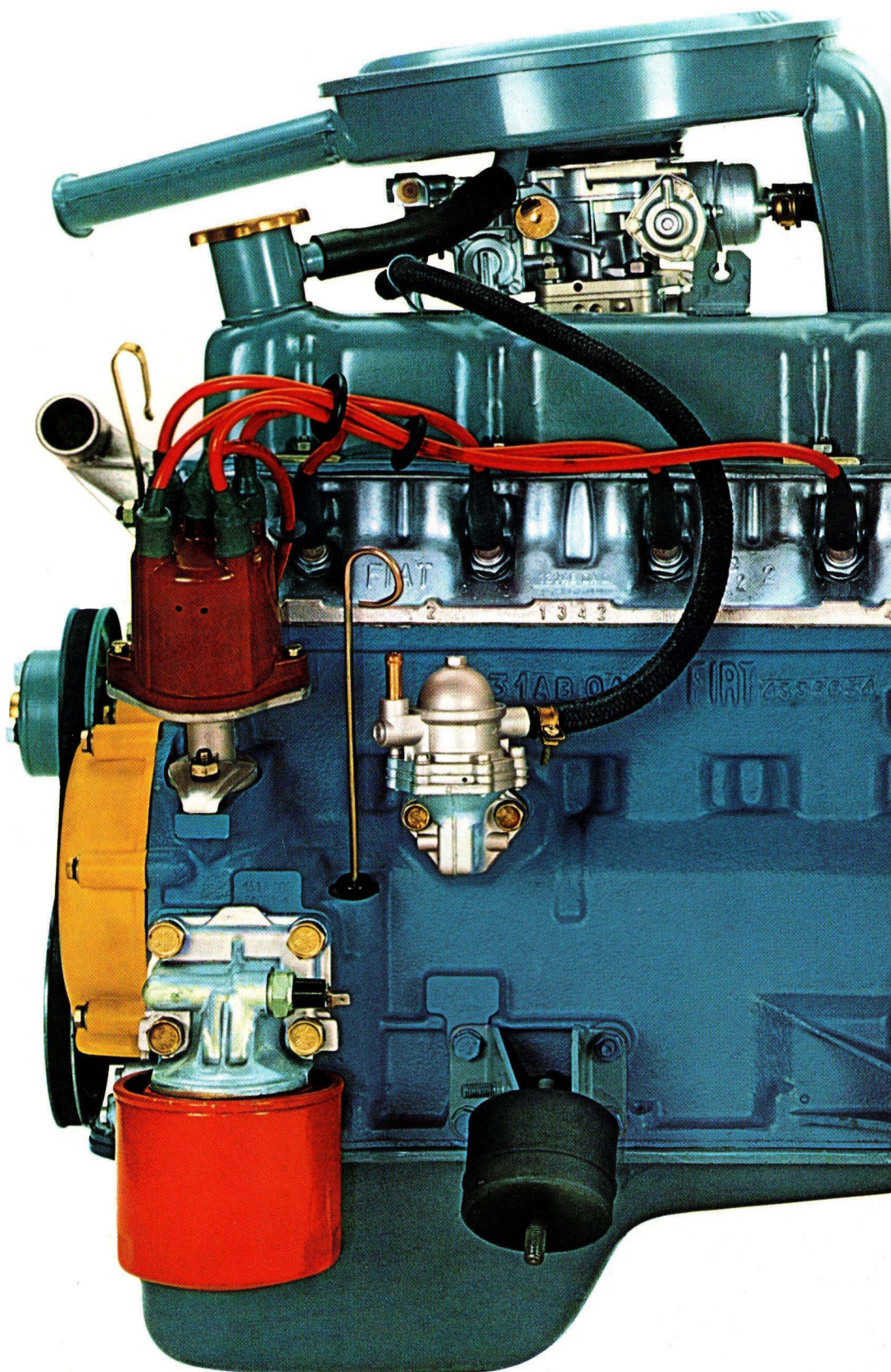
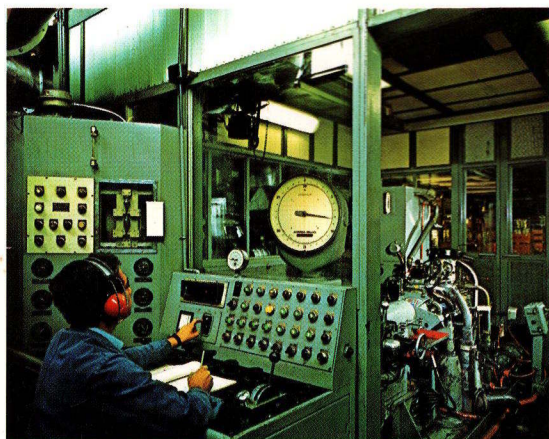
The two 131 mirafiori engines: a 1300 and a 1600

Common to both engines is an oversized cylinder block derived directly from the Fiat 132 engine. The camshaft is located in the block. This layout was chosen for its structural simplicity and easy maintenance and is particularly valid today when fuel consumption and longer car life have become more important than performance for its own sake. In the 131 mirafiori engines a further improvement has been obtained by adopting a toothed belt to drive the camshaft, in the interests of greater reliability and noise suppression. The tappets are also of new design, while short push rods provide the whole system with maximum rigidity. The exhaust valves are coated with stellite, a cobalt alloy which doubles valve life.



Strenuously tested engines

The quality standards adopted by Fiat in the development and mass production of engines is one of the most exacting in the motor industry today. Among the numerous durability tests to which the new 131 engines were subjected, the **1,000 hours** non-stop full throttle bench test is so severe that it leaves no margin for uncertainty. The engine is run non-stop under full load at between 70 and 115 % of maximum revs. This test corresponds to a journey of over 100,000 km (62,100 miles) at full throttle.



Engine flexibility

The main features of the two engines can be summed up as exceptional flexibility, low revs, and lively acceleration. The benefits of this engineering achievement are pleasant, restful motoring, longer engine life and lower petrol consumption.

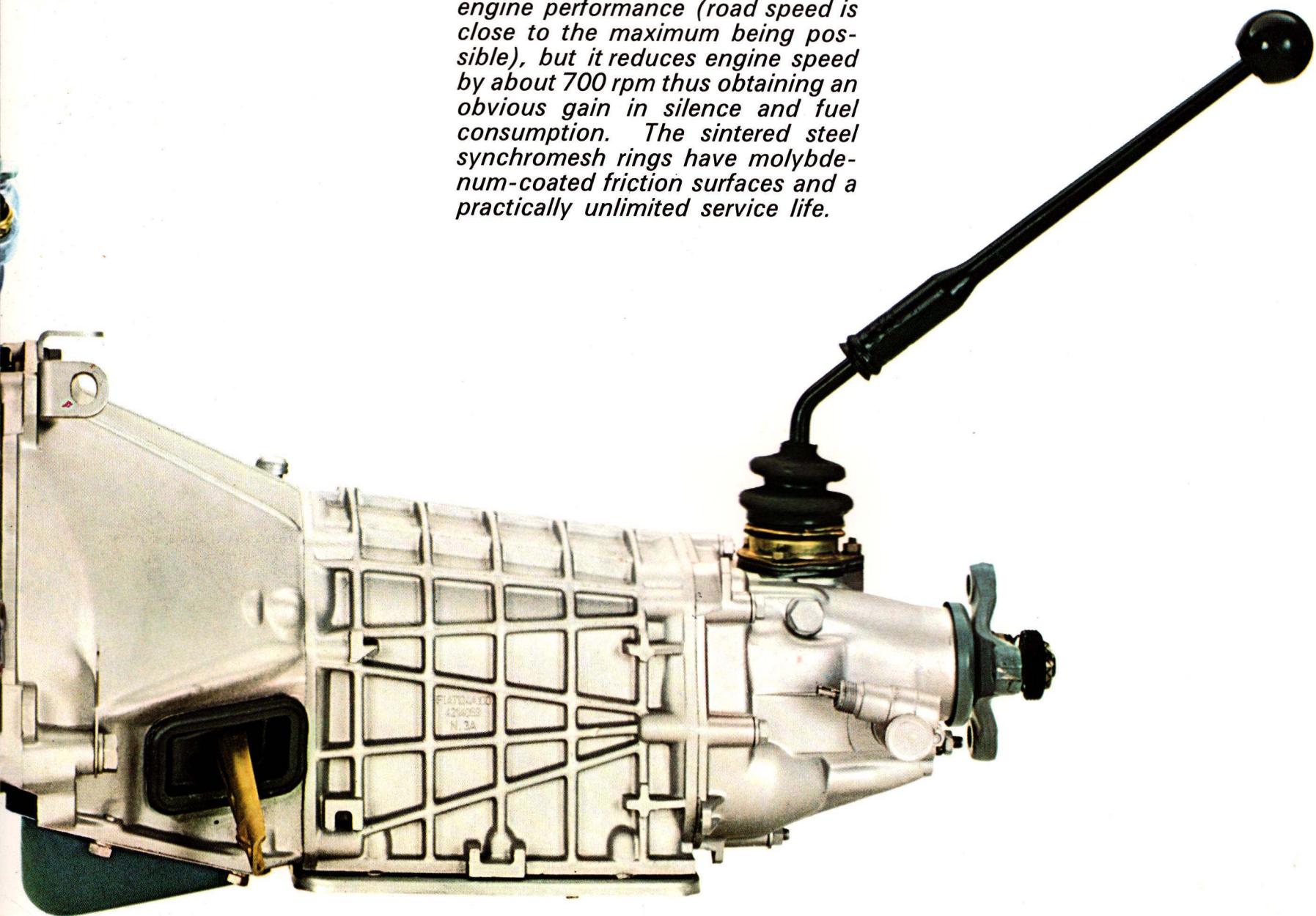


5-speed gearbox

The standard gearbox has 4 speeds. But a 5-speed gearbox of entirely new design is available as an option. Particular attention has been paid to strength, silent operation and smooth engagement. The 5th speed is a cruising gear; it does not reduce engine performance (road speed is close to the maximum being possible), but it reduces engine speed by about 700 rpm thus obtaining an obvious gain in silence and fuel consumption. The sintered steel synchromesh rings have molybdenum-coated friction surfaces and a practically unlimited service life.

Automatic transmission

The optional automatic transmission is the tried and tested GMS type with a hydrokinetic torque converter and a three-speed epicyclic gearbox.



***The two-door
131 mirafiori***

Available in standard and Special versions.

The generous width of the doors (20 cm — 7⁷/₈ in — wider than the front doors on the four-door version) not only makes access to the back seats easy, it also gives the car an even more slender appearance, rather like that of a GT coupé. This effect is also helped by the

slim link between the rear windows and the black grille on the rear pillars (which contain the air outlets from the passenger compartment).

The 131 mirafiori 2- and 4-door saloons are fitted with two reversing lights incorporated in the rear light clusters.



Sweepingly curved side windows and doors

This feature contributes considerably to the slim styling. The line of the body is particularly sleek around the roof and helps to achieve the exceptional interior width: internally the 131 is the widest car in its class.

The spaciousness available within the car and in the luggage compartment makes the 131 mirafiori an ideal family car. And for those who like caravanning, it is worth noting that the 131 mirafiori's towable weight (in any version) is 800 kg (1.763 lb).



Front view of the standard versions.

The rectangular headlights in the standard version and the low-beam lights on the Special are fitted with



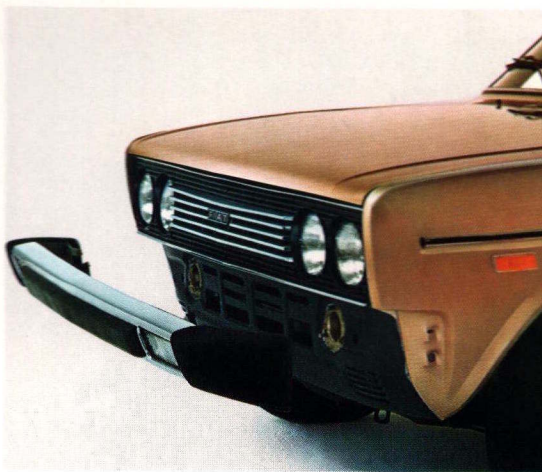
an adjustment lever to ensure optimum lighting under all load conditions.

Front view of the Special versions.

Reinforced bodyshell: safety and durability

The 131 mirafiori incorporates the most advanced findings of Fiat safety engineering. The passenger compartment has been made indeformable by three horizontal box-section structures protecting the floor, the centre of the doors and the top of the roof. The greater total weight of the 131 mirafiori compared with many other cars in the same class is intended to assure maximum passenger protection and longer life for the car as a whole. The same bodyshell is employed for European as well as American markets since it has been designed from the start to meet the most stringent safety standards required today or likely in the foreseeable future.

Again in the interests of maximum driver safety, the steering wheel assembly is anchored to an independent cross-member welded to the two sides of the shell.

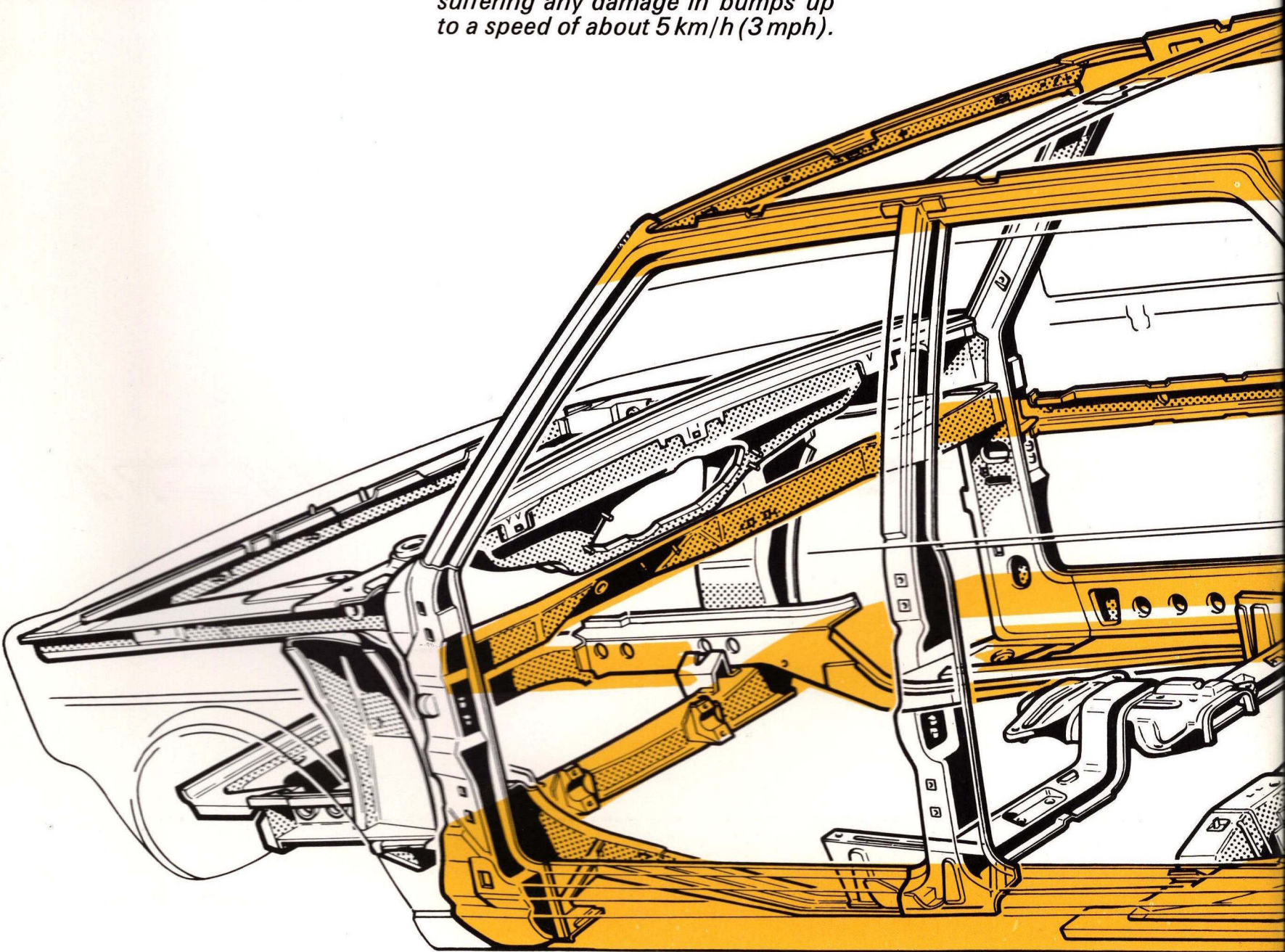


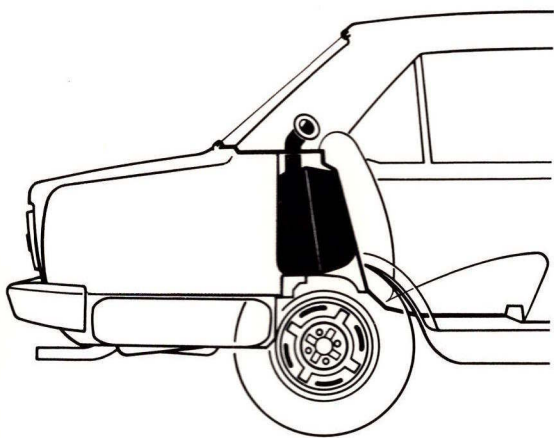
Controlled retraction bumpers

The panelling at the lower extremities of the mudguards and the front and rear lower body panelling incorporate special insets enabling the bumpers to retract up to 6 cm ($2\frac{3}{8}$ in) without the bodywork being damaged. The 131 can be fitted with special optional bumpers mounted on energy-absorbing buffers which can retract without suffering any damage in bumps up to a speed of about 5 km/h (3 mph).

Bolt-on front mudguards

Replacement is easier after damage, the car is off the road for a shorter period, and the result is always perfect. In fact the mudguards can be replaced in a short time by any body shop without specialized labour.

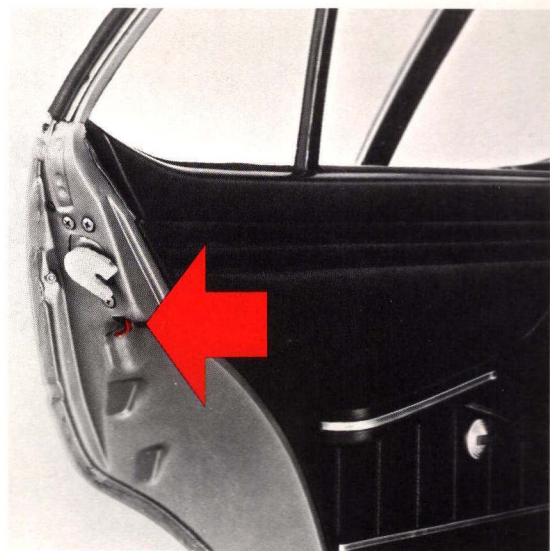




Petrol tank inside indeformable zone

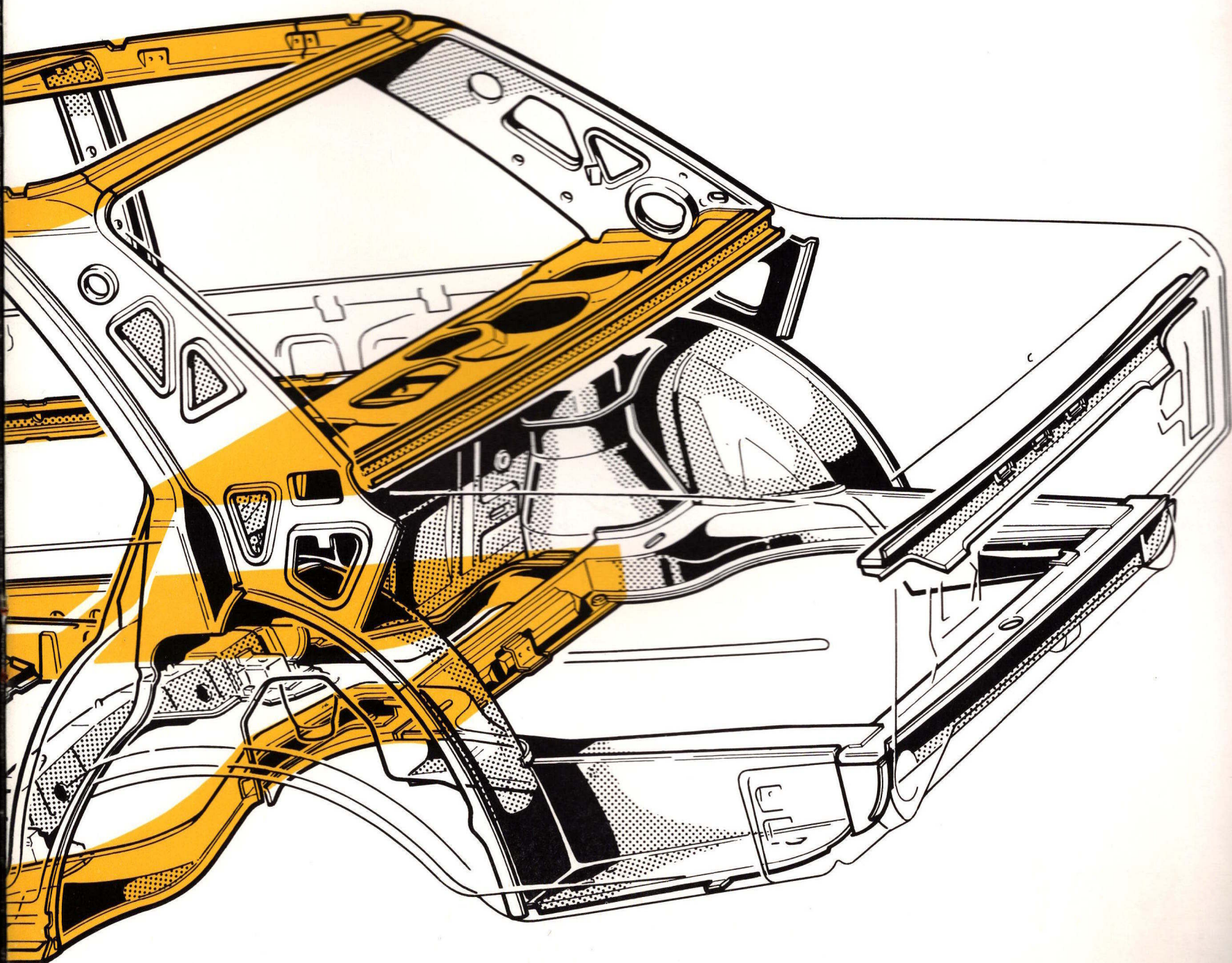
Applying the most recent Fiat experience in the field of experimental safety prototypes, the petrol tank has been packed away in the location that is most protected from impact. The area is practically

indeformable and is located behind the back of the rear seat. In addition, a sheet steel bulkhead divides the passenger and luggage compartments.



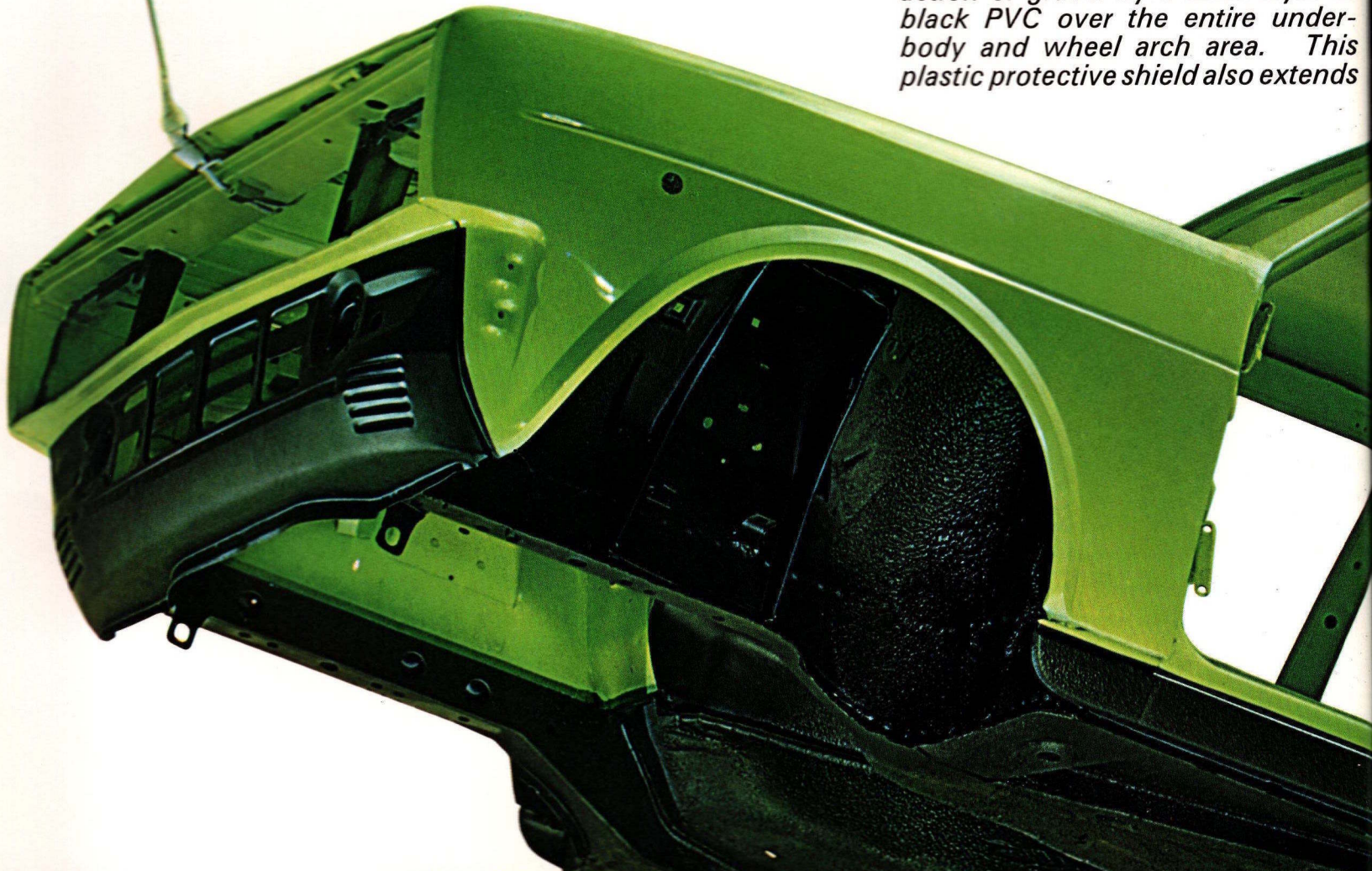
Child-proof safety locks

These prevent the rear doors being opened from inside.



Anti-rust underbody protection

The 131 mirafiori is protected by more than just the very latest paint finishing systems; it is also shielded from corrosion and the abrasive action of gravel by a thick layer of black PVC over the entire underbody and wheel arch area. This plastic protective shield also extends



For extended life however adverse the climate, all 131 mirafiori bodyshells are subjected to the most advanced protective treatment possible:

- zinc-based paint applied to all joints before welding;*
- phosphating;*
- anti-corrosion treatment by total immersion of bodyshells in special vats in which paint is deposited by electrophoresis even inside box-sections;*
- underbody, wheel arches and lower body panelling protection by a thick layer of PVC.*



beyond the side members up to the door line and up the front and rear body panelling to a height of about 20 cm (7⁷/₈ in). Small body dents are therefore easier to repair without having to repaint the damaged area in the body colour.

Epoxy powder wheel finish

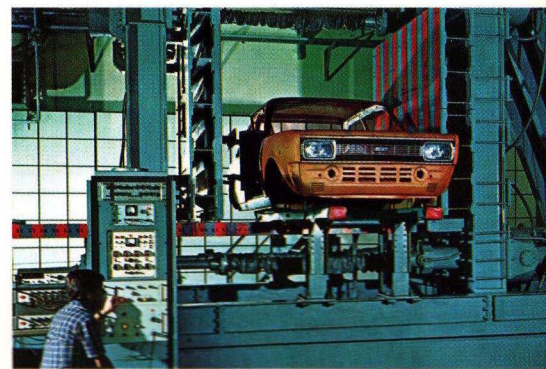
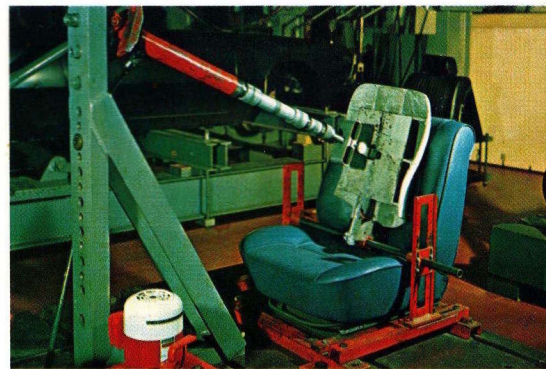
The wheels are particularly subject to the corrosive effect of the environment and thus require extra protective treatment. A special epoxy powder paint has been adopted for the wheels of the 131 mirafiori; this provides a particularly heavy protective coat and exceptional anti-corrosion resistance.



Testing

An important new car such as the 131 mirafiori must be subjected to years of development and testing before it goes into full production. This careful tuning for maximum reliability and durability, has resulted in 131's prototype and complex test equipment being despatched to the most distant and climatically rigorous regions of the world.

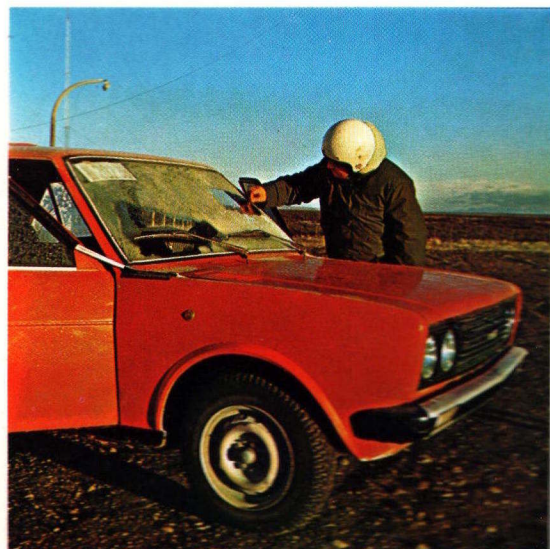
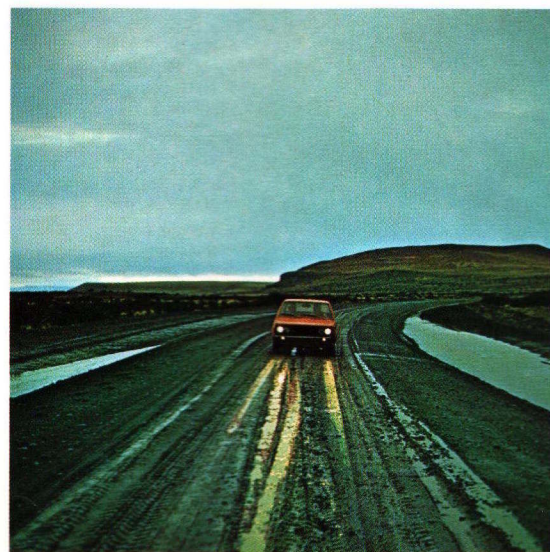
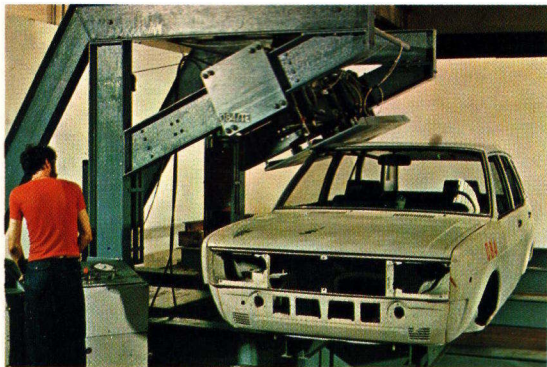
Out of wind tunnel research have come the low drag aerodynamically efficient lines. The structural strength of the car has been established in innumerable crash tests, thus enabling the engineers to produce a safe car.



Exhaustive fatigue testing in the laboratory and on the road has checked and re-checked the strength and durability of every component and of the complete car itself. The duration of the standard rough road test procedure was doubled for the 131 mirafiori: for the test drivers this is one of the most trying of all tests, and drivers have to be alternated every half hour. And that's not all: on twisting

tracks and motorways at high speeds cars are driven with the rev counter needle well into the red; brakes are tested on all possible surfaces; numerous trials are carried out to achieve optimum performance of the heating and ventilation system: corrosion-resistance checks are undertaken in various climates and road conditions, emission controls, fuel consumption controls, etc.

Testing, testing, testing. Years of work before an already "grown-up" new baby could be risked on the production line.



Two 5-door estate cars in standard and Special versions

Not just a utility vehicle, the 131 estate car is also a handsome car, ideal for leisure motoring and holidays.

The capacity of the rear compartment is more than one cubic metre (35 cu ft) with the seat laid flat. Mechanically, it differs from the saloon in suspension details — springs and anti-roll bar — and the tyres are of greater section. The standard estate car is available with either the 1300 or the 1600 engine. The estate Special is available with the 1600 engine only.

Performance

Capacity 5 persons + 80 kg (176 lb) of luggage or 1 person + 360 kg (794 lb) of luggage.

Towing capacity: 800 kg (1,763 lb). Maximum speed fully laden: with 1300 engine 150 km/h (93 mph); with 1600 engine 160 km/h (100 mph).





131 mirafiori:
2-door, 4-door
and 5-door estate car
in standard
and Special versions
with a 1300
or a 1600 engine

Specification



Integral body structure. Wheelbase 2.49 m (8 ft 2 in). Front track 1.372 m (4 ft 6 in). Rear track 1.315 m (4 ft 3³/₄ in). Overall length 4.238 m (13 ft 10⁷/₈ in). Overall width 1.632 m (5 ft 4¹/₄ in). Overall height (unladen) 1.40 m (4 ft 7¹/₈ in). Turning circle diameter 10.60 m (34 ft 10 in).

1300 engine. 4 cylinders in line. Capacity 1297 cc. Bore 76 mm. Stroke 71.5 mm. Compression ratio 9.2:1. Maximum power output 65 hp (DIN), 47.8 kW. Cast iron cylinder block. Aluminium cylinder head with valve seat inserts. Five-bearing crankshaft. Overhead valves with camshaft in block. Twin choke downdraught carburettor. Automatic choke. Mechanical fuel pump. Pressure lubrication by gear pump; pressure relief valve incorporated in pump; full-flow cartridge type oil filter. Blow-by gases recirculated through inlet manifold and burnt in the cylinders. Cooling water circulation by centrifugal pump; axial cooling fan; auxiliary expansion tank in the cooling system. Rubber-mounted engine/clutch/gearbox unit.

1600 engine (main variations). Capacity 1585 cc. Bore 84 mm. Maximum power output 75 hp (DIN), 55.2 kW. Thermostatically controlled electric radiator fan (also on 1300 Special).

Clutch single dry plate.

Gearbox 4 speed synchromesh plus reverse. Gear lever on transmission tunnel.

Propeller shaft in two sections with rubber-mounted centre bearing; universal joints in the rear section and rubber coupling at gearbox end.

Rear axle with hypoid final drive; ratio 4.1:1 on 1300; 3.9:1 on 1600.

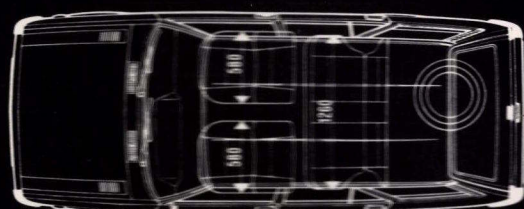
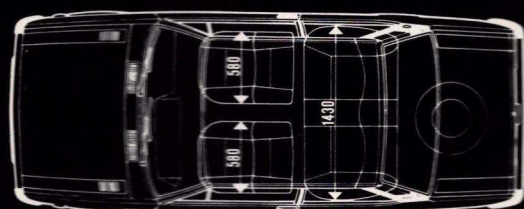
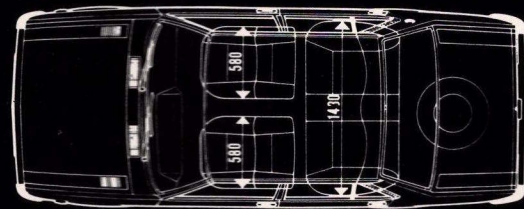
Front suspension independent strut type with lower swinging arms and struts integrated with hydraulic shock absorbers. Coil springs and rubber bump stops, coaxial with shock absorbers. Anti-roll bar also acting as reaction rod for lower arms. Sealed-for-life bearings, requiring no lubrication.

Rear suspension by rigid axle anchored to the body by 4 trailing arms and a transverse rod, coil springs and coaxial hydraulic shock absorbers.

Steering rack and pinion.

Column articulated with two universal joints; independent, symmetrical track rods for each wheel. Sealed-for-life linkage bushes requiring no lubrication.

Brakes discs at front and drums at rear, with self-centering shoes and automatic adjustment for wear. Vacuum servo. 2 independent circuits for front and rear wheels. Braking effort compensator on rear brake circuit. Emergency brake obtained by doubling service braking circuit. Hand operated parking brake, acting on rear wheel brakes.



Fuel tank at rear, inside luggage compartment. Approx. capacity 50 litres (11 Imp gall - 13.2 U.S. gall).

Wheels disc type with 4½ J rims. Tyres 155 SR-13.

Electrical system 12 Volt. Alternator with 9 diode rectifier and dual stage electromechanical voltage regulator. Continuous output 44 A 0.8 kW starter motor on 1300 engine and 1.3 kW on 1600 engine and free wheel pinion. 45 A/h battery. 2 rectangular headlights. Self-parking windscreen wipers with normal or intermittent operation. Windscreen washer pump, operated by movement of windscreen wiper lever towards steering wheel. Two reversing lights incorporated in rear light clusters.

Capacity 5 persons + 50 kg (110 lb) of luggage.

Maximum speed: with 1300 engine: 150 km/h (93 mph);
with 1600 engine:
— 160 km/h (100 mph) with mechanical gearbox
— 155 km/h (96 mph) with automatic transmission.

131 mirafiori 5-door estate car (main variations).

Front track 1.376 m (4 ft 6⅛ in).

Rear track 1.319 m (4 ft 3⅞ in).

Disc wheels with 5 J rims.

Tyres 165 SR-13.

Reversing light in centre below bumpers.

Capacity 5 persons + 80 kg (176 lb) of luggage or 1 person + 360 kg (794 lb) of goods.

The rear seat cushion may be tilted forward and the back rest laid flat as a continuation of the loading surface.

Exterior rear view mirror on driver's side.

Fuel tank located under the luggage compartment.

131 mirafiori Special versions

(main variations). Overall length 4.264 m (13 ft 11⅞ in). Overall width 1.642 m (5 ft 4⅝ in). Vertically adjustable steering wheel. 4 round headlights. 2 courtesy lights in side pillars. Front and rear bumpers with central rubber strip. Upholstery in stain-proof fabric. Oddments tray on transmission tunnel. Front seats with adjustable back rest. Additional external moulding, trim and framing along waist-line, the door framework and on the rear number plate, and internally on the instrument panel.

Main optional extras. Five-speed gearbox; automatic transmission; limited-slip differential; light alloy wheels; energy-absorbing bumpers; metallic paintwork; air conditioning; revs counter; heated rear window; tinted side windows and heated rear window; adjustable seats (standard on Special versions); front seat head-rests; seat belts; leathercloth upholstery; vinyl roof covering; steering column lock.

The layouts of 131 mirafiori models and the supply of optionals may change from one country to another to meet special market or legal requirements.

For a Fiat, Fiat Service

Wherever Fiat cars go, **Fiat Service** goes too. Highly specialized in men, tools and equipment, the organization is at all times ready to keep your car in perfect condition. The Fiat Service warranty policy assures to the customer, within the stated terms, a comprehensive coverage of labour costs and materials for all Fiat cars. Fiat Service gives the owner rapid assistance at a reasonable cost and where necessary a mobile workshop service is available. The "Fiat Ricambi" plant which manufactures and stores all Fiat replacement parts in Turin ensures prompt despatch of spare parts through over 12,000 Service Centres all over the world.