

# PININFARINA HITS BACK

Pininfarina has turned its back on wild styling exercises and produced a stunningly practical sports coupé based on Lancia Delta Integrale mechanicals. Michael Scarlett is the first to drive the HIT







f all the Italian design studies at this year's Turin show, Pininfarina's HIT stood out as the practical one: a coupé for now rather than a blindly futuristic show

stopper. Using Lancia's Delta Integrale as a base, HIT — for High Italian Technology — blends dumpy, wheel-at-each-corner styling with extensive use of composite materials sporting four-wheel drive. There's headroom for four, too.

Of course, it's a pretty rare show car that actually allows you to drive it, and you don't therefore expect the highest levels of functionality. However, the HIT achieves much more than most — even if there remains a number of either sham or non-working parts.

All the main glass areas are in polycarbonate, glued solidly in place. If HIT did turn into a production car, there would be real glass and the back window would hinge as a hatch. There were no working instruments and the "rally computer" on the hand-like extension of the fascia in mid-car was a mock-up.

When it was my turn to drive, I wondered how to open the door. There was the suspicion of a door release set in the back of the door window frame and you could get your hand in to push it. This device is very tidy but needs some development. Working like a little spring-loaded door with its hinge on the outside edge, it needed an uncomfortably big squeeze and an unnatural hand action.

Once into the comfortable, markedly reclined seat, I shut the door. The Lancia parts did what they should, starting, if a little froggily, but clearing. I set off cautiously, trying not to be distracted by the devilish Testarossa with its odd little white hood where there is usually a sleek cabin, on which some mechanics were working. "Unico," my mechanic friend had said, adding, "Agnelli". Wondering how you armoured a soft top in such a conspicuous car for such a conspicuous captain of Italian industry, I motored round to the point farthest from the complex, and accelerated hard.

There was the usual turbo lag, then a surge of power just as there should be from an Integrale. Backing off to avoid alarm, we ambled past the photographer at perhaps 45mph, then touched the brake before the corner. The car shook; disc run-out or patch of rust. There was a slight slope coming up past the gatehouse and here it sounded as if something was rubbing a drive shaft. Although the brief was to drive this equally 'unico' motor car, there wasn't much point in pushing the obvious nerves of our hosts any further.

Of more relevance was to consider how well the design looked and proved to the touch. HIT stood out at Turin simply because of its practicality. There is a bit of verbiage in the English version of the press release which talks of "much more than lines fashioned in an artful fashion; an emotion, the way it feels to drive a car that quickens the relationship between man and machine by doing away with the countless filters that encumber a modern car".

I know what the writer means, although I'd always thought that one of the pleasures of Italian cars, whether high performance or mass production, was that there was a delightful lack

of filters, particularly where engine noise is concerned.

In typical Pininfarina fashion, HIT combines functionality with graceful lines. And there is more than a hint of another much more commonplace Pininfarina shape, the Peugeot 205, in the back.

I always have admired the Peugeot's looks, and HIT pleases me because I find it pretty — in spite of the fact that at just a shade over 13ft long and 4ft 4ins high, it is dumpy by coupé standards. The height explains the accommodating headroom inside; even in the back a six-footer's head only brushes the roof. Coupés don't make great demands on interior space length-wise — room in the back is assumed to be unimportant. But the way in which Pininfarina has exploited the compact transverse drivetrain in front and that elegant little rump behind to keep body overhang so small, is most pleasing. Add to that something of a wheel-at-each-corner effect and you end up with a good blend of beauty and practicality. Most of the pillars are slender — if you ignore the Alice-band rear hoop — which, combined with big areas of window, make all-round vision better than average.

There are some neat details. Indicator, stop and reversing lamps do not break the clean outline, being placed under the darkened lower part of the back glass high on the car's hips. The cleanliness of the car is so complete that one wonders where cabin ventilating air is supposed to exhaust. Following other people's practice, maybe via the gap between door and frame if the present single rubber seal is all there is to be.

**In typical fashion the HIT is graceful yet functional. At the back there is more than a hint of a much more familiar Pininfarina shape — the Peugeot 205. Dumpy by modern coupé standards, the car has plenty of interior space and its large windows give good visibility**

One is reminded of the banana aerodynamic shape proposed in an earlier Pininfarina show exhibit in the vestiges of a pulled-in sill between the wheels on each side. But it is only a trace, best seen when a chance straight line is reflected in the body's metallic off-white.

Underneath, the deliberately simple construction of the floorpan-cum-chassis leaves a completely flat smooth bottom from behind the rear-mounted front anti-roll bar to just ahead of the rear final drive. Only the suspension, naked engine-gearbox underside, rear drive and the considerable bulk of the exhaust spoil the effect.

In front of the occupants, the passenger would have a normal glove locker, here mocked up. In the swept-up forward end of the door grab handles there are pockets, deep, but much too narrow for an adult hand to reach the bottom.

Italians are among the few motor car makers who remember that the driver's left foot and both those of the passenger need something to push against at times. HIT makes a point of this with a simple cross tube in the passenger footwell.

Outside, there is a thinly tapered stripe of two of the colours in Italy's national flag, red and green, on the creamy body. Inside, the main colours of cinnabar, hot red and black are broken by stripes of green.

Since Pininfarina's designers talk of how the roof and the floor are formed of exposed areas of carbon fibre "left bare to rid the car of weight-consuming items" — you can see the weave of the mat under the clear gel coat — we must believe that they mean it.

As a feature of exterior panels, this is striking, but when it continues in the floor right up under the driver's feet and to the small protective mat beneath and behind the pedals, one can't help wondering how it would look after a while.

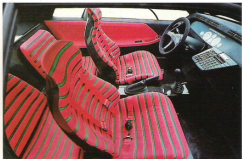
HIT's construction is just as interesting as its shape and visual design. The chassis is driveable, if stripped of the unstressed body shell. It is wonderfully simple, and that's intentional. Although it is made of structurally exciting materials, it is formed of plain flat composite panels to make it less costly to manufacture in quantities of between three to five a day.

The result is the flat floor, upon which are bonded the centre propeller shaft and gear-change tunnel and, at each side, the sills. These form deep torsionally-stiff beams, ending at the front in the combined foot plate, door pillar and front strut support members. All this, plus a steel tubular framework for the engine-gearbox, are bonded together to form one intrinsically stiff bulkhead.

At the rear, there is a transverse torsion box upon which the back seat cushions sit, terminating in a big flat transverse board bulkhead off which the rear struts and the rear of the chassis pick up.

The 13x2.4 metre sandwich composite panels from which HIT's chassis is made consist of a 15mm thick Nomex honeycomb between two pre-impregnated carbon fibre sheets each side. Each one is 0.4mm thick, with one weave arranged crosswise to the other and stuck together with adhesive films. One of these sandwich sheets makes up the floor; the other parts are cut — using numerically controlled water jet cutters — in a careful pattern to minimise scrap.

Pininfarina says that the chassis weighs ▶



Based on Lancia engine and drivetrain, the HIT does not yet have working instruments, and the windows are polycarbonate — not glass. The car is driveable, however. The driver has plenty of legroom, and glass-fibre seats are comfortable. The car's roof and floor are made from unpainted carbon fibre

