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Autocar

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Tested

Strada Abarth: Fiat's road racer



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Auto TEST

Fiat Strada Abarth 130TC

£7,800

Max: 118 mph 0-60 mph: 8.2sec

26.3 mpg overall

FOR:

- *Tremendous performance*

AGAINST:

- *Unimpressive fuel consumption*

ACCORDING TO Fiat's market research, buyers of sports hatchbacks "place great importance on high performance, driving enjoyment and competition-proven engineering in preference to 'frilly embellishments' perceived as of no practical value". There are certainly no frilly embellishments on the Strada Abarth 130TC; in fact, "ferocious" and "spartan" might be the best adjectives to describe Fiat's uncompromising challenger in the hot hatchback stakes.

Externally, there is not a great deal to distinguish this Strada from lesser versions, the main identifying points being the deep front bumper incorporating the now-mandatory air dam plus twin foglamps, impact-resistant side mouldings, rear hatch-lid spoiler, the aerodynamic door-mounted wind deflectors seen on Strada and Regata ES models, and low profile Pirelli P6 tyres fitted to that tyre company's Plus-One alloy wheels.

Inside too, with the exception of the form-fitting Recaro front seats, extra instrumentation and Abarth leather-rim steering wheel, there is not a great deal to distinguish this Strada from others in the range. True to the marketing concept, Fiat engineers have concentrated on two areas with the 130 TC — the engine and the chassis. The power unit, as detailed in Technical Focus, is the well-known 1,995cc twin overhead cam straight-four seen in Fiat and Lancia road and competition cars. As befits the car's nomenclature, in this guise it produces 130 bhp and 130 lb ft of torque, mainly from the adoption of Marelli Digiplex electronic ignition and a pair of twin-choke, sidedraught carburettors — the case of the test car, Solex C40s.

To cope with the car's increased performance potential, it has been fitted with 9.5in diameter ventilated discs



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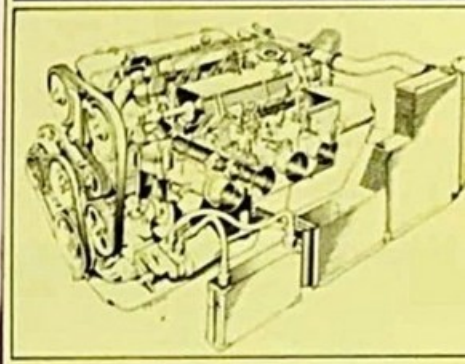
at the front plus Bendix calipers and 7.2in diameter drums at the rear. In the suspension department, the variable rate coil springs are mounted offset in relation to the damper struts to lessen transfer loads, reduce steering effort and improve ride quality. There is an anti-roll bar at the front and the usual Strada transverse leaf spring at the rear.

Start-up from cold using the manual choke is a bit fluffy and is sometimes aided by a couple of preparatory prods on the throttle pedal. Once running smoothly on the choke it settles down to an even idle and warms up within three-quarters of a mile. Predictably, power delivery is not as smooth and hiccough-free as with an injection engine, but nonetheless, for a two-litre carburettored unit, it is most flexible — and remains quite happy being pottered about in heavy traffic.

The responsive nature of the engine, with its 6,250 rpm redline, is matched by the choice of gear ratios, for although there is a notable gap between third and fourth, the ratios are quite closely spaced, producing maxima of 34, 54, 78 and 106 mph. These contribute to the tremendous feeling of accelerative punch throughout the rev range. The gearbox contains a set of 'sports' ratios, with the mean top speed of 118 mph achieved in fifth with the engine pulling just on 6,000 rpm. With ideal weather conditions and one-up, there is no doubt that the 130TC would hit — and sustain — the redline in top gear, which would equate to 124 mph. With that sort of performance potential, we might have expected a sub-3sec 0-30 mph time, but this was prevented by the strong wheelspin encountered during the standing start acceleration runs. Once recovered and underway the Fiat produced consistent low 8sec 0-60 mph times, while 100 mph came up in 24.1sec.

TECHNICAL FOCUS



THE KEY to the Fiat Strada Abarth 130TC's impressive performance is the installation of Fiat's competition-proven two-litre twin cam engine. The basic power unit is not new — it is perhaps best known from the rear-wheel drive Supermirafiori saloons. In the case of the Strada, though, it has been adapted to a front-wheel drive layout and developed by Abarth, now a wholly owned Fiat company, to provide 130 bhp at 5,900 rpm and 130 lb.ft of torque at 3,600 rpm. It is mated to a five-speed ZF gearbox and 7.8in diameter clutch to handle the power output.

The main modifications to the 1,995cc twincam unit involve the adoption of the Marelli Digiplex electronic ignition system and two 40mm twin-choke sidedraught carburettors (either Solex or Weber). The Digiplex ignition is claimed to ensure cold weather starting, plus improve urban cycle fuel consumption, spark plug life and the torque curve.

The advantages of a pair of choke carburettors on an eight cylinder head are well proven: a cylinder draws its fuel-air mi from its own choke (which is mos closer than in a single-carbur system), the time taken for mixture to reach the combu chamber is reduced, thus impr throttle response. It also mean mixture remains more uniform times. In the case of the 130TC carburettors are fitted to a subf to ensure synchronisation plus cise throttle linkage operation.

Once an engine has been asse by Abarth, it is adjusted for mi uniformity. This is done throug expedient of sensor probes, ins into threaded sockets in each four branches of the tubular ex manifold, which measure the ca monoxide percentage in the ex gas (a function of the fuel-air r thus allowing precise adjustme each carburettor choke.



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Fiat Strada Abarth 130TC

One other point worthy of mention in this area is the quality of the gearshift in the 130TC. Granted, it's still a bit sticky, and you can beat the synchromesh if you shift gears too quickly once the gearbox oil is hot, but it is safe to say that the shift is smoother and less friction-laden than that of any of the other cars in the range.

Economy

In absolute terms, the Strada Abarth 130TC's average consumption figure of 26.3 mpg is not at all bad, especially when bearing in mind the levels of performance on tap and the relative inefficiency of fuel metering of carburettors as opposed to fule injection. The problem, of course, is that when compared with the opposition, there are a number of hot hatches which offer standing start acceleration and a top speed close to that of the Fiat — plus much better fuel economy.

Our calculated "average" figure of 28.9 mpg should be attainable, although to drive the 130TC with petrol consumption in mind is rather to deny the essential nature of the car. In any event, the 12.1 gallon petrol tank will endow the Fiat with a range of about 300 miles between visits to the filling station.

Oil consumption, as we have experienced previously with the Fiat-Lancia twin cam units, has to be watched, particularly when the engine is being worked hard. In this case, the consumption worked out at 1,800 miles per litre.

Refinement

The 130TC is not a quiet car, but somehow that fact doesn't detract from it too much. At urban speeds, it is mechanical noise which dominates, and in particular, induction roar from the twin carburettors, while road noise is particularly obvious on surface changes. At these speeds, there can also be a crashy reaction from the suspension to what appear to be reasonably small potholes and ridges, although this problem tends to diminish as speed builds.

At motorway speeds in fifth gear, it is wind noise which becomes dominant with engine noise still present in the background and road noise not as prominent as might have been expected. With that dominant combination of wind and engine noise, it is in fact a little difficult to determine whether road noise is being suppressed or simply hidden. At first we suspected the plastic deflector shields around the windows to be the major contributors to the wind roar, but although they are part of the problem, there was a loud hiss from the door frames themselves suggesting the seals weren't doing their job as effectively as they might at higher speeds.

The usual noise sources are added to in the 130TC by a couple of fairly obvious body resonance periods in the mid-range and an exhaust boom which contributes to the overall noise level, while the shell itself can be heard to creak and groan — somewhat like a competition car — when it is being driven hard.



Boot space is similar to that of other Stradas. The spare tyre resides in a hinged frame under the boot floor leaving a good flat load area



The famous Abarth scorpion badge mounted discreetly on the grille marks the 130TC

Road behaviour

Next to power delivery, this is probably the area of most interest to the potential Abarth 130TC buyer. With 113.4 bhp per ton laden and a front-rear weight distribution of 65.2-34.8, the indications are that the Strada Abarth will be a strong understeerer. A session at the test track quickly reveals that such is the case. This is a fairly unremitting understeerer, building the harder the car is cornered.

At the same time, it is not a car to be upset if power is lifted-off in mid-corner. The Strada simply neutralises on a trailing throttle and returns to understeer as soon as power is reapplied. Front-end grip is acceptable, but not as good as, say, the Golf GTi, since the Fiat will easily spin an inside front wheel when lock and too much power are applied simultaneously. Body roll and pitch are very well controlled with the 130TC cornering in a reassuringly flat, stable attitude.

The steering adds to this feeling of stability. It has a fairly normal steering pivot-to-contact patch centre disposition, as opposed to the now more prevalent negative offset geometry, and as a result, it is nicely weighted throughout the speed range, retains good feel and gives accurate feedback about what the front wheels are doing. Nor does it change with the application of power, often a characteristic of negative offset steering.

Straight stability also turned out to be good and although the Fiat notices winds and heavy vehicle "bow waves", such movements are generally self-correcting. What this means in practical terms is that the car can be driven quickly over long distances without undue fatigue.

As we've already hinted, the 130TC's ride-handling equation is clearly biased in favour of handling. It is quite stiffly sprung and transmits a fair amount of road surface imperfection to the occupants, resulting in what might best be described as a "busy" ride. It is particularly lively at low speeds on urban roads and tends to smooth out somewhat as speed builds, although there is a slightly "fidgety" aspect to the ride, regardless of speed or road surface.

In terms of feel, the brakes are not one of the 130TC's most endearing features. Specifically, the pedal has too much travel and has a hard, somewhat dead feel to it. The long travel causes two problems: those drivers with larger feet tend to catch the welt of their shoe on the underside of the large accelerator pedal, plus accurate heel and toe action is made difficult — doubly irritating considering the beautifully fabricated accelerator pedal with its extension on the side to aid heel and toeing.

In terms of response and fade, the brakes turned out to be well up to the 130TC's performance.



Interior appointment is functional. The Recaro seats are a worthwhile addition in a performance hatchback like the Strada Abarth

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