

**Andrew Kirk reports on the Renault 5 Turbo 2.
The engine size is small but the power is there**

RED HOT STREET MACHINE

We mustn't beat about the bush. Renault's R5 Turbo 2 is unbelievable. On first acquaintance, driving round city streets and pottering along in rush hour traffic, we wondered what the homologation special was all about, but show it the open road — preferably one with twists and undulations — and it all becomes very clear. Not only is Turbo 2 a little powerhouse, but it handles like no other Renault 5.

This latest version of the mid-engined concept — developed specifically by Renault to make a mark in international rallying — is similar in most respects, bar the interior, to its predecessor, the Turbo 1. This car appeared back in 1981 and besides the obvious body changes, enormous rear track and garish interior colour schemes, it had the very special 1,397cc power unit tuned to develop a very healthy 160bhp. The Turbo 1 was quite expensive with its leather-trimmed upholstery and special fascia display, selling for over £12,000. The Turbo 2, on the other hand, has actually come down in price, as a result of the less specialised build which now includes a less exotic interior using parts from the front-wheel drive Renault 5 Turbo.

Cartel of Woking imports Turbo 2s to order and, before the pound began to plummet, was selling them for £9,500. The cost has recently increased to over £10,000, but even so it still represents a lot of motor car for the money.

There have been no mechanical changes to the diminutive four-cylinder engine, which produces the impressive power output in conjunction with a Garrett T3 turbocharger and Bosch K-Jetronic injection. Maximum power of 160bhp is developed at peak revs (6,000rpm) and with it is 160lb ft torque at 3,250rpm. This compares with 155lb ft torque for the Turbo 1.

Drive is via a close ratio five-speed gearbox to the rear wheels and with 60 per cent of the weight behind the driving seat, Renault has come up with the ideal rear-wheel drive configuration for handling and grip.

The Turbo 2 is not the easiest of cars to get off the line quickly and the only way to break the remarkable adhesion of the rear tyres is

to drop the clutch at 6,000rpm. This is enough to unstick the 220/55VR 365 Michelin TRXs briefly with the engine boosting. Even so, the car still falters only slightly before picking up and delivering its smooth surge of power.

Acceleration is impressive enough; perhaps not as quick as its aggressive looks would have

one believe, but a time of 7.7 seconds to 60mph is not to be sniffed at, especially when one considers that even the much larger-engined Porsche 944 can muster only 7.7 seconds for the same speed increment. Equally impressive is the 0-100mph figure of 20 seconds dead, bordering on the super car class, and indeed we did crack the 20-second barrier

with one particular 19.9 second dash. No mean feat for a car with the aerodynamics of a brick (Cd 0.45). Part of the answer lies in the vehicle's low kerb weight of 18.5cwt, the other comes from a well sorted turbo system. Engine compression is a mere 7.0:1 to reduce problems in detonation when the full charge of 12psi boost is fed into the combustion chambers. An intercooler is fitted to further aid detonation control by reducing the air/gas temperature, making it denser, so creating more free horsepower.

Below 3,000rpm the Turbo 2 has about as much punch as a Sinclair C5 and it's only at higher revs that the turbo comes into play. Consequently it is a difficult car to drive smoothly in round-town traffic situations, with its dramatic on-off power delivery. Above 3,000rpm, engine response is instant and acceleration breath taking. In third gear, the 50-to-70mph is covered in a mere 3.9 seconds, only 5.3 seconds in fourth and 7.7 seconds in fifth. A glance at acceleration figures ▶



There is no mistaking Turbo 2's aggressive looks. Bonnet opening is for front-mounted radiator cooling duct

◀ from low speed tells another side of the story as the Turbo 2 takes 15.8 seconds to get from 20 to 40mph in top gear. The standard Renault 5TL will even show the Turbo a clean set of heels with a figure of 14.2 seconds.

The Turbo 2's top speed worked out at a reputable 124mph in fifth, which it managed with only minimal build up. Again this is a creditable figure considering the less than perfect aerodynamics.

There were only slight variations in fuel consumption throughout our brief loan of the vehicle, ranging from 18.2mpg while track testing, to 22.2mpg on a more leisurely drive home. The overall figure of 20.2mpg is perhaps a little disappointing when one considers the engine size, but the high state of tune has taken its toll. Tank capacity is a full 13.5 gallons — large for the size of car, but it needs to be, considering the Turbo's thirst. As a result, range is quite good for a car of this type with stops around the 242 mile mark.

Cornering quickly in the Turbo



Built in left-hand drive only; interior is functional but seats lack support

2 is a real experience and cornering on the limit a revelation. Handling overall is neutral: mild understeer is evident as speed is built up, then there is an almighty gap as speed is further increased with no change in attitude before this, in turn, changes to mild oversteer. The transition is smooth, the car retains good poise and one always feels in control. The balance is superb

and the amount of oversteer instantly controllable by the throttle. Foot off to tighten the line, foot on to retain it. And if one explores further it is possible to power slide all the way round the corner. It is at this point we realise how difficult it is to compare other cars with the Turbo 2. Only the mid-engined Lotus Esprit Turbo shows comparative handling characteris-

tics, but is not half as much fun. The story may well change in wet weather, but we did not have the opportunity to put this theory to the test. No doubt extra care is necessary to avoid or minimise the sudden transition period from off to on boost.

The ride, for a car developed specifically for rallying, is commendably good. It is firm without becoming uncomfortable. Clearly Renault has achieved an excellent compromise in spring damper rates.

At first, we found the all-ventilated disc brakes lacking, due to the amount of pedal effort required, even though the system is servo-assisted. But a lengthier spell behind the wheel confirmed that stopping power really is excellent, providing the driver has a strong right leg.

Inside, the car is strictly a two seater. The space normally filled by the back seats is occupied by a large carpeted box, which is there to shroud the engine and keep interior noise down. It does an effective job too, as the only real source of complaint is exhaust noise. This is almost unbearable by today's standards of refinement. Above 4,000rpm, however, the resonance changes as revs rise and the car is noticeably quieter — even at speeds where wind and tyre noise are more pronounced.

Interior comfort is adequate, though the softly sprung seats — great for improved bump absorption — do not give adequate support. Sideways location and lumbar support are both lacking and we would be inclined to replace these with full bucket types together with a full harness, so that one can enjoy the car more in corners rather than using effort to remain seated.

There are many impractical features about the Turbo 2, including the luggage carrying capacity which is limited to two soft medium-sized bags, but Renault never really intended it to be anything other than a full-blooded racer. If one bears this in mind, the road version is a particularly civilised machine. In 160bhp form — higher outputs are available from the factory — the combination of power and handling is a satisfying one. We know of no other mini super car that offers as much excitement for the price. ■

Car loaned by Andrew Duncan

SPECIFICATION AND PERFORMANCE

ENGINE

Longways/mid/rear-wheel drive. Head/block cast iron/cast iron. 4 cylinders in line, wet liners, 5 main bearings. Water cooled, twin electric fans.

Bore 76mm (2.9in), stroke 77mm (3.0in), capacity 1,397cc (85.2 cu in).

Valve gear ohv, 2 valves per cylinder, chain camshaft drive. Compression ratio 7.0 to 1.

Breakerless electronic ignition, Bosch K-Jetronic fuel injection. Garrett T3 turbocharger, boost pressure 12 psi (.84 bar).

Max power 160 bhp (PS-DIN) (113.3 kW ISO) at 6,000 rpm. Max torque 160 lb ft at 3,250 rpm.

TRANSMISSION

5-speed manual. Clutch 7.5in dia/twin plate.

Gear	Ratio	mph/1,000 rpm
Top	0.868	20.4
4th	1.057	16.8
3rd	1.381	12.9
2nd	2.059	8.6
1st	3.364	5.3

Final drive: Helical spur, ratio 3.889.

SUSPENSION

Front, independent, double wishbones, longitudinal torsion bars, telescopic dampers, anti-roll bar.

Rear, independent, double wishbones, coil springs, telescopic dampers, anti-roll bar.

STEERING

Rack and pinion. Steering wheel diameter 13in, 3.2 turns lock to lock.

BRAKES

Dual circuits, split front rear. Front 10.2in (259mm) dia discs. Rear 10.2in (259mm) dia drums. Vacuum servo. Handbrake, centre lever acting on rear discs.

WHEELS

Light alloy, 5.5in rims, front, 7.5in rear. Tyres (Michelin TRX on test car), size 190/55 HR 340 front, 220/55 VR 365, rear, pressures F22/R29 psi (normal driving).

DIMENSIONS

Wheelbase 95.6in (2,430mm); track, front 52.9in (1,346mm), rear 58.0in (1,474mm). Overall length 144.2in (3,664mm), width 68.9in (1,752mm), height 52.0in (1,323mm). Turning circle 33ft 3in (10.1m). Boot capacity N/A.

WEIGHT

Kerb: 18.5cwt/2,072lb/939.8kg (Distribution F/R, 40.6/59.4).

Test: 21.4cwt/2,402lb/1,089kg.

Max payload: N/A.

MAXIMUM SPEEDS

Gear	mph	kph	rpm
OD Top (Mean)	124	199	6,000
(Best)	125	201	6,100
4th	101	162	6,000
3rd	78	125	6,000
2nd	52	84	6,000
1st	32	51	6,000

ACCELERATION

FROM REST	True mph	Time (sec)	Speedo mph
30	2.7		31
40	4.3		40
50	5.4		51
60	7.7		62
70	9.7		73
80	12.4		83
90	16.0		93
100	20.0		105
110	29.1		115

Standing 1/4-mile: 16.0sec, 89mph

Standing km: 28.6sec, 108mph

IN EACH GEAR

mph	Top	4th	3rd	2nd
10-30	—	—	8.8	4.8
20-40	15.8	10.9	7.0	3.3
30-50	12.7	8.6	4.8	2.4
40-60	9.0	6.0	3.7	—
50-70	7.7	5.3	3.9	—
60-80	7.4	5.6	4.5	—
70-90	8.1	6.3	—	—
80-100	9.7	7.9	—	—
90-110	12.5	11.5	—	—

CONSUMPTION

FUEL

Overall mpg: 20.2 (13.9 litres/100km) 4.4mpl

Autocar formula: Hard 18.2 mpg
Driving Average 22.2 mpg
and conditions Gentle 26.3 mpg

Grade of fuel: Premium, 4-star (98 RM)

Fuel tank: 13.5 Imp galls (61.4 litres)

Mileage recorder reads: 2.2 per cent long

Oil: (SAE 20W/50)/negligible

TEST CONDITIONS

Wind: 7.5mph

Temperature: 4deg C (39deg F)

Barometer: 29.5in Hg (1001mbar)

Humidity: 75percent

Surface: dry asphalt and concrete

Test distance: 400 miles

Figures taken at 6,814 miles by our own staff. All Autocar test results are subject to world copyright and may not be reproduced in whole or part without the Editor's written permission

Maximum 124mph coincides with peak power of 6,000rpm.
Turbo 2 is very stable at speed considering poor aerodynamics



It's not so much performance but handling in extremes that really impresses. Grip is remarkable and cornering g. forces very high

