



SUBARU IMPREZA 2,0 GT

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The Impreza GT looks like a familiar Japanese compact wearing some go-faster add-ons, has a name few but enthusiasts will recognise, and blows away most other things on wheels, irrespective of the quality of the road surface. No question, there's a certain charm to this nuggety little performer with the Jekyll and Hyde personality.

Two things help make Subarus distinctly different: flat-four engines and permanent all-wheel drive. This offshoot of Fuji Heavy Industries has doggedly followed its own distinctive drivetrain path, and it has garnered a similarly faithful following. What also helps is that in recent years the turbo 4wd Impreza has emerged as a major force in world rallying, since managing second place overall on its 1993 debut in the 1 000 Lakes.

Subaru says the turbo version is its best-selling saloon; a brief comparison of prices shows that abroad it competes against cars such as the BMW 320i, but here our import duty punts it rather higher up. Even so, its performance is out of all proportion to its price — or appearance.

At first sight the Impreza looks like a boy racer special, the unadventurous

A performance car for the individualist

appearance of the standard model being given macho appeal by a bug-eyed look, courtesy of huge spotlights in the airdam, and a menacing bonnet scoop directing air to the induction system. Two smaller vents in the bonnet, on closer inspection, appear to serve little purpose — they are actually blanked off on the inside. Perhaps they're there for homologation purposes, being uncovered only in the heat of battle. At any rate, this ain't no boy's toy, considering it boasts a power to mass ratio (119 watts per kg) bettered by only a handful of cars — all much more expensive, and clearly sporting — in our current CAR Guide listings.

You won't find explosive response to the loud pedal in a higher gear, though; like a typical turbocar it lacks real low-down oomph. A glance at our overtaking

acceleration figures will show quite clearly the initially ordinary performance, up to about 3 500 r/min. But wind it up though... with the boxer motor humming around 4 000 to 5 000 r/min in fourth gear, don't sneeze — even a toe-twitch will summon up Warp Speed.

Speaking of which, standing-start sprints are harsh (some say needlessly so) tests of a drivetrain's ability to withstand the transition from immobility to maximum-effort forward motion. In the past, we have found with Subarus that engine speed had little apparent effect on the drivetrain's reaction when we dumped the clutch: there would be an almighty "clonk" as the diffs took up the strain of all four wheels gripping, and the car would then streak off the line. So we crossed our fingers, wound it up, "... and that's 6.39 seconds," came the news from the passenger seat as we blasted past 100 km/h.

With the amount of torque developed

KEY FIGURES

Maximum speed.....	227 km/h
.1 km sprint	27.06 secs
Fuel tank capacity	60 litres
Litres/100 km at 100	8.64
Estimated fuel range	496 km
*Fuel index.....	12.10
Engine revs per km	1 548
Odometer error.....	0.93 per cent under
National list price	R177 850
(*Consumption at 100 plus 40%)	

Bug-eye spotlights and scoops lend a boy racer appearance to the front end. Opposite below, stability is good despite roll and understeer. Below, drab grey does nothing to lift the interior, though the Nardi steering wheel adds a nice touch. The standard airbag-equipped wheel is an option instead of the sunroof that came fitted to our test car.



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by the turbo it was to be expected that similar harsh treatment would have the non-competition drivetrain approaching its design limits.

HOT CLUTCH

After only a handful of runs we noted a distinct smell of cooking friction materials and, after it became clear that the clutch was overheated and slipping, decided to call it quits. Had the road surface been slippery enough to give us a little wheelspin on takeoff, we suspect we may have done even better than the excellent times we did manage. With a bit more time and an unlimited supply of

clutches we would probably have dipped under 27 seconds for the standing kilometre, too...

But what makes the Impreza really special is how it puts that power down, no matter where. On dirt roads, you can comfortably make like Colin or Carlos; it is quite tolerant of inexperience. On a gradual curve taken

at speed it will begin to oversteer if you lift off, but a whiff of corrective opposite lock will enable you to hold it through the curve in a stable drift. With only 2.75 turns lock to lock the steering is really quick, although perhaps a little too much power assistance is provided. As the driving becomes smoother and speeds rise, the Impreza itself rises to the occasion. A series of really tight curves taken at modest speed begs for repeated action replays, the car effortlessly making the transition from understeer to tucking in to mild oversteer to drift. Even better, the Michelin tyres on our test car were more suited to tar than off-road

conditions, which made them better for playing rally drivers at less than life-threatening speeds.

HANDLING

On the tar, in fact on the still-new Killarney tar oval, the car showed superb balance, with a bias towards power-on understeer, of course. At the end of the straight it was a sequence of brake hard, settle, turn in late, and then power outwards from the apex to clip the outside of the track. Under such conditions a good deal of body lean was noted, but this did not appear to affect stability much.

Choose your gear ratios properly, though: in lower gears the power comes in with a whallop and simply shoves the car outwards sooner than is ideal. For the adventurous, of course, there is always left-foot braking... The gearshift, incidentally, is light but lacks the positive, precise feel enthusiastic drivers demand.

As a performance car, it is clear that the GT merits great respect. Yet under the bonnet beats what has been described as only a mildly tweaked version of the standard Impreza engine.

The blower charge is cooled by an air-to-air intercooler, and fuel is dispensed by multipoint sequential injection. The

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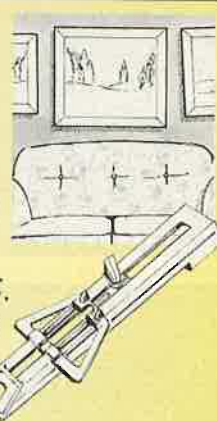
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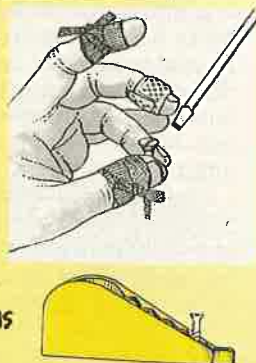
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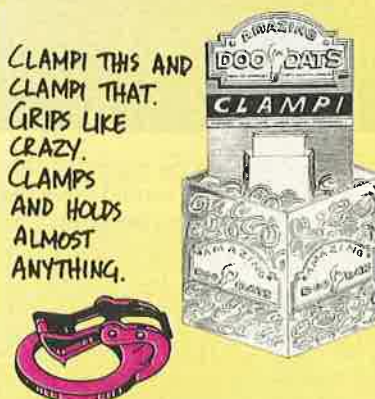
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short-stroke 1994 cm³ engine, with alloy block and crankcase, pumps out 155 kW at 6 000 r/min and 270 N.m of peak torque at 4 800. This is transmitted to the wheels through a system of differentials. Up front the "centre" diff and viscous coupling split torque 50/50 front to rear under normal conditions, and at the rear a viscous limited-slip diff helps improve traction in cornering and on poor surfaces.

Unlike its normally aspirated siblings the turbo doesn't have a low "multiplier" ratio, perhaps for self-preservation if nothing else. When the turbo's spinning at full boost, there's such a thing as TOO much tractive force, as a

few horribly stressed driveshafts and CV joints will confirm.

SUSPENSION

The suspension amounts to basically a strut at each corner, with a combination of trailing arm and lateral link providing wheel location at the rear. Subaru claim exceptional "lateral rigidity" thanks to what are said to be largest-in-class suspension struts.

Braking is to the same high standard as the rest of the car's performance. Subaru uses a tweaked version of ABS, said to give more natural pedal feel too. Speed sensors optimise braking in the "cross-piped" system by controlling the

The short chopped-off deck, frameless windows curving into the roof and mild wedge profile add to the overall impression of solidity.

front wheels independently and the rears simultaneously. Supplementing the speed calculation function is a G-sensor operating with the viscous LSD, helping to avoid "cross-interference" between front and rear wheels. In the event, we recorded an average of 3.01 seconds in 10 stops from 100 to 0 — in the leading pack of ABS-equipped models.

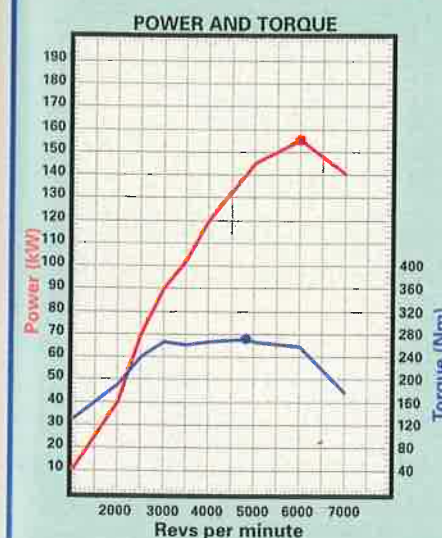
Our steady-speed fuel consumption figures are more or less what can be expected from a two-litre motor having to overcome the extra drivetrain baggage carried by full-time 4wd. However, at 100 km/h — the figure on which our 12.10 litres/100 km Fuel Index figure is based — the engine is turning at only 2 600 r/min, well out of the power band. We have little doubt that the turbo's potential is likely to be unleashed quite often, with a sadly predictable effect on economy. Subaru claims urban fuel consumption of 11.4 litres/100 km.

Having used three-quarters of a tankful, we calculated that the Impreza had guzzled fuel at the rate of 18 litres/100km during our performance test, which included a couple of top-speed runs and half a dozen kilometre sprints. Incidentally, top speed was slightly below the claimed 230, with virtually identical speeds of 227 being recorded each way of our out-and-back test run.

With all this, the Subaru is surprisingly refined; its noise levels match those recorded by many of what are classed as luxury cars. However, that purposeful boxer-engine growl will be a constant and noticeable companion at cruising speed.

In South African spec, the Impreza GT

SPECIFICATIONS:



ENGINE
Cylindersfour, horizontally opposed
Fuel supply.....multipoint sequential fuel injection, turbocharged and intercooled

Bore/stroke.....92/75 mm
Cubic capacity.....1 994 cm³
Compression ratio.....8.0 to 1
Valve gear.....d-o-h-c, four valves per cylinder
Ignition.....electronic
Main bearings.....five
Fuel requirement.....97-octane Coast
93-octane Reef
liquid

ENGINE OUTPUT:
Max power I.S.O. (kW).....155
Power peak (r/min).....6 000
Max usable r/min.....7 000
Max torque (N.m).....270
Torque peak (r/min).....4 800

TRANSMISSION:
Forward speeds.....five
Gearshift.....centre floor console
Low gear.....3.454 to 1
2nd gear.....1.947 to 1
3rd gear.....1.366 to 1
4th gear.....0.972 to 1
Top gear.....0.738 to 1
Reverse gear.....3.416 to 1
Final drive.....3.900 to 1
Drive wheels.....4 x 4

WHEELS AND TYRES:
Road wheels.....alloy
Rim width.....6JJ
Tyre make.....Michelin Pilot HX MXV3A
Tyre size.....205/55 R 15
Tyre pressures (front).....230 kPa
Tyre pressures (rear).....220 kPa

BRAKES:

Front.....ventilated discs
Rear.....discs
Hydraulics.....dual circuit, ABS
Boosting.....vacuum
Handbrake position.....between seats

STEERING:

Type.....rack and pinion, power-assisted
Lock to lock.....2.75 turns
Turning circle.....10.8 metres

MEASUREMENTS:

Length overall.....4 340 mm
Width overall.....1 690 mm
Height overall.....1 400 mm
Wheelbase.....2 520 mm
Front track.....1 465 mm
Rear track.....1 455 mm
Ground clearance.....150 mm
Licensing mass.....1 235 kg
Mass as tested.....1 300 kg

SUSPENSION:

Front.....independent
Type.....MacPherson strut
Rear.....independent
Type.....dual link, struts, coil springs

CAPACITIES:

Seating.....4/5
Fuel tank.....60 litres
Luggage trunk.....312 dm³
Utility space.....960 dm³

WARRANTY:

2 years or 60 000 km

TEST CAR FROM:

Subaru South Africa

comes fully loaded. Standard features include air-conditioning, ABS brakes, either of driver's airbag or electric sunroof, radio/cassette player, and headlamp washers. Nice little touches inside include an elegant Nardi leather-bound steering wheel and gearknob. The driver's seat provides plenty of adjustment fore and aft and vertically, and most should be able to get comfortable behind the wheel.

After this extended song of praise it seems almost churlish to raise a negative: well, the Impreza doesn't feel particularly special from the driver's seat. The external (almost) Q-car looks are fine, but the shade of grey chosen for the interior does nothing to lift the bland ambience.

Our test car came trimmed in cloth but buyers may choose leather instead.

TEST SUMMARY

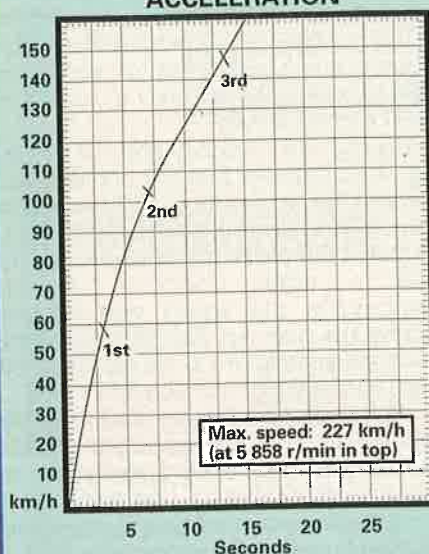
Similar performance from other sources will cost you much, much more. That said, R177 850 is still a lot of outlay for performance you may not use most of the time. Then again, the Impreza GT is the kind of vehicle that encourages you to seek out places to enjoy its potential. It's practical, blindingly quick on any usable surface, and lots of fun; a rather different type of performance car for the individualist.



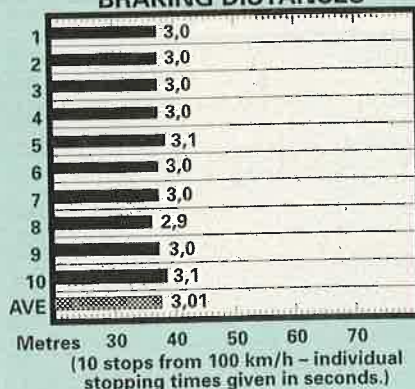
Peak power of 155 kW and peak torque of 270 N.m from two litres help propel the Impreza GT to a 27.06-second standing kilometre — but the superb traction of all-wheel drive plays a major role in putting that power down.

TEST RESULTS: SUBARU IMPREZA 2,0 GT

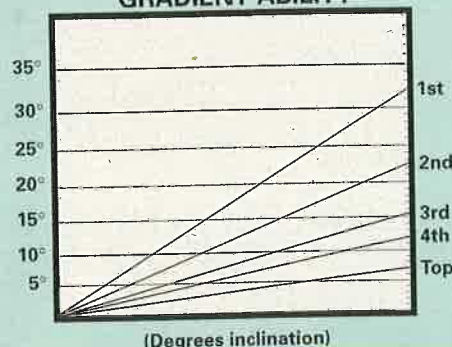
ACCELERATION



BRAKING DISTANCES



GRADIENT ABILITY



MAXIMUM SPEED (km/h):

True speed.....	227
Speedometer reading.....	237
(Average of runs both ways on a level road)	
Calibration:.....	60 80 100 120
True speed:.....	58 76 96 117

ACCELERATION (seconds):

0-60.....	3.02
0-80.....	4.54
0-100.....	6.39
0-120.....	9.15
1 km sprint.....	27.06
Terminal speed.....	193.2 km/h

OVERTAKING ACCELERATION (seconds):

	3rd	4th	Top
40-60.....	3.33	6.18	9.51
60-80.....	2.39	5.08	9.00
80-100.....	2.34	3.76	8.22
100-120.....	2.51	3.62	6.07
120-140.....	2.96	4.12	6.08

FUEL CONSUMPTION (litres/100 km):

60.....	6.60
80.....	7.21
100.....	8.64
120.....	10.31

BRAKING TEST:

From 100 km/h	
Best stop.....	2.9
Worst stop.....	3.1
Average.....	3.01
(Measured in seconds with stops from true speeds at 30-second intervals on a good bitumenised surface.)	

GRADIENTS IN GEARS:

Low gear.....	1 in 1.6
2nd gear.....	1 in 2.4
3rd gear.....	1 in 3.6
4th gear.....	1 in 4.8
Top gear.....	1 in 8.3
(Tabulated from Tapley (x gravity) readings, car carrying test crew of two and standard test equipment.)	

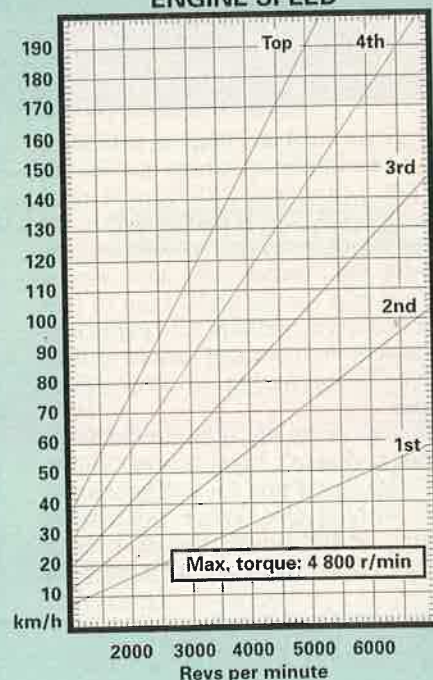
GEARED SPEEDS (km/h):

Low gear.....	50*	58
2nd gear.....	88*	103
3rd gear.....	126*	147
4th gear.....	177*	206
Top gear.....	233*	271
(Calculated at engine power peak* - 6 000 r/min and at max. usable r/min - 7 000 r/min.)		

INTERIOR NOISE LEVELS:

	Mech	Road
Idling.....	43	-
60.....	60	-
80.....	62	68
100.....	64	70
120.....	67	72
(Measured in decibels, "A" weighting, averaging runs both ways on a level road: "mechanical" with car closed; "road" on a coarse road surface.)		

ENGINE SPEED



PERFORMANCE FACTORS:

Power/mass (W/kg) net.....	119
Frontal area (m²).....	2.37
km/h per 1 000 r/min (top).....	38.75
(Calculated on "mass as tested", gross frontal area, gearing and I.S.O. power output)	
TEST CONDITIONS:	
Altitude.....	at sea level
Weather.....	clear, warm, light breeze
Fuel used.....	97
Test car's odometer.....	988

CAR'S ROAD TESTS

CAR is the only South African motor magazine whose performance road tests are carried out at sea level — where naturally aspirated car engines achieve their (rated) peak performance — on a flat road to internationally comparable standards.

The test car carries a crew of two, a full tank of fuel and German Peiseler electronic road test equipment. CAR's fuel consumption testing is done with a Pierburg flow meter linked to the Peiseler computer. Top speed and overtaking run times are averaged both ways on a level road.