

wheels

2008 Subaru Outback

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2007 Toyota Sienna MiniVan

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The 2007 RX-8 continues the Mazda 40 year tradition of offering a rotary engine in its flagship sports car. Equipped with four doors, it makes the RX-8 one of the few four-seat sports cars you can buy and just about the only one in its price range.

Mazda RX-8 is a rotary rocket with zoom zoom zoom

sive fuel consumption. GM, Mercedes and others dropped the concept and went back to pistons and camshafts - but not Mazda.

Through dint of hard work and a lot of stubbornness, Mazda engineers found a solution and kept developing the rotary. That has led to today's RENESIS engine found in the current RX-8. Not only is it fairly good on gas at 8.6L/100 km on the highway (automatic transmission) but now it turns out the rotary is uniquely suited to burning hydrogen which is a major step in making a hydrogen powered car a reality.

The RENESIS has two "cylinders" called chambers that (combined) make for a displacement of 1.3 litres.

The rotary runs and sounds like nothing else.

It spins into life with not a lot of sound. Punch the gas and the pitch changes to a basso-like electric turbine. Turn it off and the sound reminds me of one of those new cyclonic vacuum cleaners.

Leave a stop light and the rotary can wind up to the 9,000 rpm redline in the time it takes to read this sentence. And during full-throttle passing the twin exhausts put out a unique muted snarl - the closest sound I can think of being the Porsche 911 Turbo.

The RX-8 is offered in GS and GT versions, both of which come standard with a six-speed manual transmission. With the stick, the engine produces 232 hp and 159 lb/ft of torque. Optionally available is a six-speed automatic with steering wheel mounted paddle shifters. While the torque is the same, the engine produces 212 hp in the automatic and redlines at 7,500 rpm not the 9,000 rpm of the manual.

The manual goes from 0-100 km/h in a hair over six seconds. The manual has a fuel consumption rating of 12.8L/100 km city, 9.2L/100 km highway while the automatic gets 12.9L/100 km city and 8.6L/100 km highway. Both run on premium fuel.

Other than transmissions, the GS and GT are essentially the same with the exception of trim like Xenon headlights with auto levelling on the GT and halogens on the GS. The GS gets a cloth interior while the GT has leather. About the only optional extras are a satellite navigation system and a power sunroof on the GT but they are not offered on the GS.

The GS has a list price of \$37,195 and the GT is \$40,395, the power sunroof as fitted to my tester adding \$1,000 to the sticker price. The only other option, the navigational system, costs \$3,000 extra.

Did you know the RX-8 is a four-door? Front and passenger doors open like French doors, to reveal a back seat. I suppose it's possible for two adults to ride there with the driver and front passenger seated all the way forward but I wouldn't want to try it.

The GT comes with what Mazda calls its Intelligent Key. Basically it is a wafer with a chip embedded in it that 'talks' to the ignition. What you do to start the engine is twist a knob where the key normally goes. The Intelligent Key has to be in proximity for the

engine to start and run.

There is an emergency key that slips inside the wafer, but the theory is that while the wafer is in your possession, no one can steal the car.

But you will have to remember not to leave the wafer somewhere like in your slacks as they go through the clothes washer. It can also be a pain at places like valet parking. I haven't seen it on subsequent Mazdas, which I think is a good thing.

The compact size and lighter weight of the Rotary let Mazda engineers move the engine and the gas tank closer to the centre of the car for a near perfect weight distribution.

What that really does is make for what is known as a low-polar-moment-of-yaw. Think of the car sitting on a pyramid with the tip at the centre of the car and with the engine on one end of the car and a full gas tank at the other. When the driver turns the steering wheel, the closer the engine and tank are to the centre of the car, the quicker the direction of motion can be changed. The farther away, the more effort is needed to swing the masses around and that's the secret behind the lightning-like handling of the RX-8.

Finding ways to save weight was a priority on the RX-8. Examples are the carbon fibre driveshaft and the aluminum alloy upper and lower control arms on the front wishbone suspension.

Behind the driver's seat, all the sight lines are surprisingly good for a car with a roofline this low. Because the tank and engine are so close to the nexus of the four wheels, the RX-8 is really a tidy piece to drive.

On a trip up to the Blue Mountains of Ontario, there are dozens of great winding and well-maintained roads snaking up and through the Escarpment.

This is RX-8 country!

As noted, the engine revs like an electric motor but you have to remember that there is only 159 lb/ft of torque. High revving engines all have to get the revs up to make power and the rotary is no exception to the rule.

Taking off with verve, you can change up through the gears under load as often as every 2-3 seconds if you're pushing it. Also on long uphill runs, you find yourself shifting down one or two gears if the revs fall below 3,000.

But on the handling and split second directional changes! With traction control, dynamic stability control (DSC) and a limited-slip rear differential, it's hard to hang the tail out but it can be done, if only in a very limited fashion before the system kicks in and quells your enthusiasm.

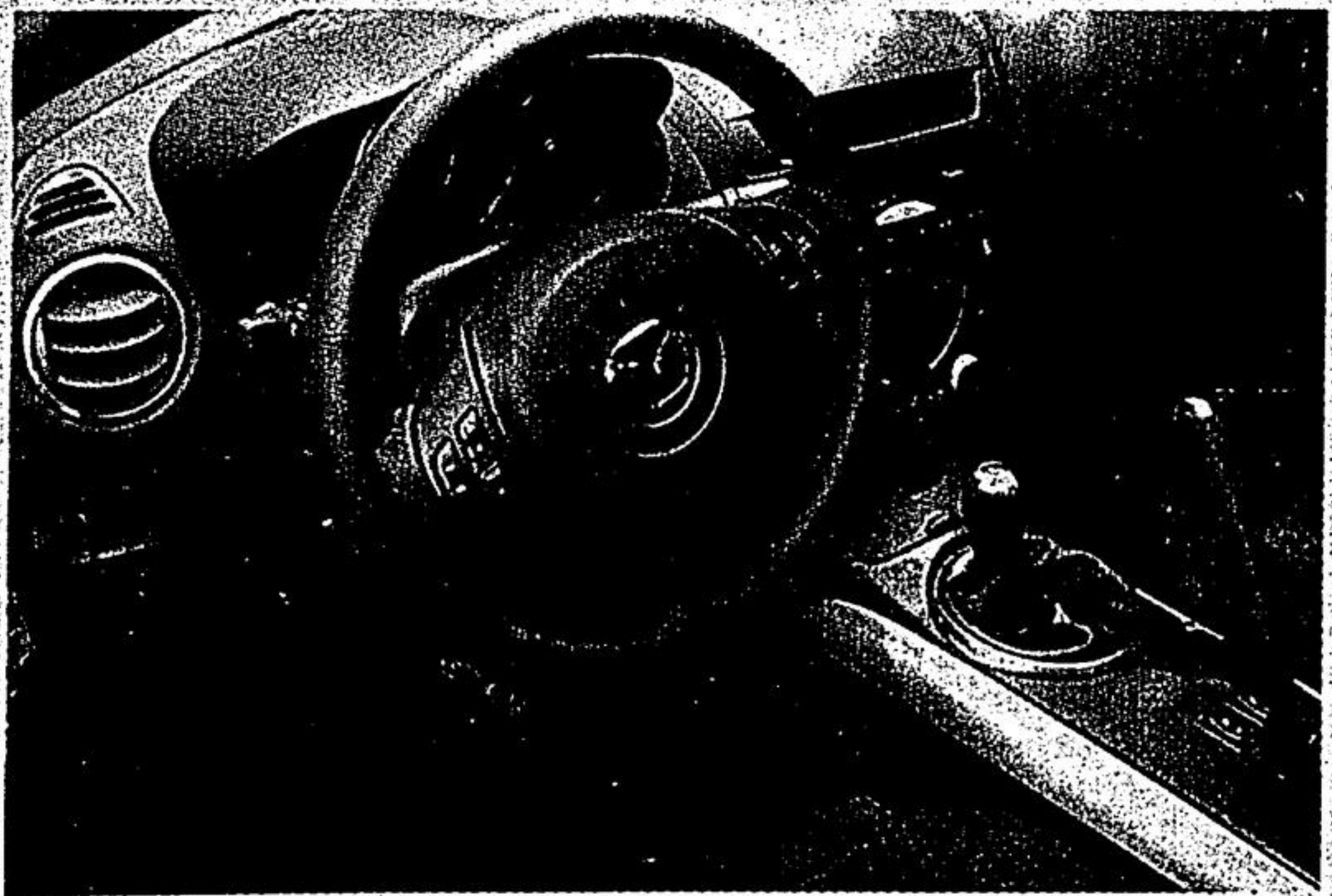
The turning circle is only 10.6 metres so this car is very much point and shoot.

Wisely I did my best to stick to the speed limit which was 80 km/h in most places. At this pace the RX-8 was still a lot of fun and the driver still gets to experience the quickness of the steering and the rise and fall of the engine note without being a danger to him/herself or others.

And isn't that what motoring is all about?



The RX-8 is powered by the latest in a long line of Mazda rotary engines - the latest as fitted being called the RENESIS. Its two chambers have a total displacement of 1.3-litres but it generates 212 hp with the six-speed automatic and 232 hp in the six-speed manual version.



The interior, cloth in the GS and leather in the GT (shown), is definitely laid out for a driver with all controls one-hand movement away from the steering wheel.

BY JIM ROBINSON
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There really isn't anything quite like the 2007 Mazda RX-8.

The reason, of course, is its rotary engine. Making the rotary gasoline engine attractive to the car buying public has never been an easy sell. It burst on the automotive scene in the late 1960s with NSU (now a part of Audi). Many manufacturers jumped on it as a simpler way to go than the internal combustion

tion engine.

On paper it looked simple. There are only three moving parts in a rotary and no pistons, valves or cylinders for that matter. It is compact, light and with the drive shaft coming off the centre of the engine, power delivery is direct to the drive wheels.

But physics has a nasty habit of making what seems simple an endless challenge and so it seemed with the rotary. The two biggest problems were not finding an effective seal for the tips of the rotary "cylinder" and exces-