

Here shown testing the RX-8 gasoline/hydrogen on Mazda's Hiroshima test track, I found the handling and ride the same as a standard RX-8, but on hydrogen only, it did not accelerate as fast as with gasoline.



Mazda looks to hydrogen and new technologies for sustainable zoom-zoom

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HIROSHIMA, Japan— Imagine a car that is 100 per cent recyclable from bumper-to-bumper, has seats and trim make from carbon-neutral plant products and emits nothing but clean water from its exhaust.

That isn't something that we "can expect in our lifetime" but that we start to see beginning in 2008 and well before the end of the next 10 years.

Like all manufacturers, Mazda is striving to built cars and trucks that will lead to what it calls "sustainable zoom zoom." It's more than just making greener cars; it also takes in passenger and pedestrian safety and how to use available resources so there is little or no impact on the planet.

Mazda has already set goals of 20 per cent better mileage from its gasoline engines and 10 per cent from its diesels starting in 2010. But the real goal is to use its rotary engine expertise with hydrogen as a fuel and make it part of everyday life as soon as next year.

For instance, Mazda is already leasing dual fuel (hydrogen or gasoline) engines in RX-8 sportscars in the Japanese market. It has the power of a comparable 3.0-litre gasoline V6.

Mazda is currently working on two rotaries. The first is the gasoline and hydrogen called the RE (Rotary Engine) while the other is the RE dual fuel and electric propulsion called the RE Hybrid. The hybrid currently has a range of about 200 km on hydrogen.

In the longer run, Mazda plans a purely hydrogen RE that will emit water and only trace amounts of CO2 and nitrogen oxide.

In the RE as used in the RX-8, here is a button below the steering wheel that lets the driver select gasoline or hydrogen. About the only visible difference are lights on the fuel level gauge indicating if the car is running on gasoline or hydrogen.

Driving this car on the Mazda test track at its plant in Japan, I could feel the difference between the two with hydrogen being not as peppy as gas, but not at all slow either. All other functions like handling and braking are the same.

But the really exciting thrust is a RE hybrid that is already running in prototype form which I saw in action on the test track.

Mazda looked at both fuel cells and hydrogen combustion. While the fuel cell is slightly cleaner and more efficient because there is no burning of fuel, the cost of development and time line to perfect the technology is very far into the future.

Mazda, to its delight, found the rotary engine is nearly perfect for a hydrogen combustion engine. Because the intake and combustion chambers in a rotary are separate there is no mixing on exhaust gases with fresh charges thus much reducing emissions.

The RE Hybrid is currently being tested in a Mazda5 van and is expected to be launched for limited use in Japan in 2008.

Not only is the hybrid incredibly better for the environment, it gives 40 per cent more power than the gasoline/hydrogen rotary.

See MAZDA, pg. 3



This display shows how the gasoline and hydrogen rotary works.

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| <p>\$128 Bi-weekly</p> <p>\$15,995</p> <p>2007 Ford Focus ZX3 Automatic, A/C, GFX pkg.</p> | <p>\$230 Bi-weekly</p> <p>\$24,888</p> <p>2005 Nissan Xterra SE Automatic, A/C, roof storage</p> | <p>\$105 Bi-weekly</p> <p>\$11,995</p> <p>2004 Nissan Sentra Automatic, A/C, pwr. win. & locks</p> | <p>\$142 Bi-weekly</p> <p>\$15,688</p> <p>2006 Chev Cobalt LS Auto, A/C, Trade in NOT a daily rental</p> | | | | | | | | | | | | | | | | | | |
| <p>\$178 Bi-weekly</p> <p>\$19,495</p> <p>2005 Ford Escape Limited 4 wd, A/C, leather, sunroof</p> | <p>\$119 Bi-weekly</p> <p>\$11,995</p> <p>2003 Honda Civic DX Auto, A/C, Keyless entry</p> | <p>\$186 Bi-weekly</p> <p>\$17,995</p> <p>2003 Toyota Camry SE Auto, A/C, Leather, Sunroof</p> | <p>\$192 Bi-weekly</p> <p>\$20,995</p> <p>2004 Mitsubishi Endeavor XLS 2 wd, auto, sunroof</p> | | | | | | | | | | | | | | | | | | |
| <p>\$170 Bi-weekly</p> <p>\$16,495</p> <p>2003 Nissan Altima 2.5SL Auto, A/C, leather, sunroof</p> | <p>\$200 Bi-weekly</p> <p>\$21,995</p> <p>2006 Mitsubishi Eclipse GS Manual, 17" wheels, Air</p> | <p>\$124 Bi-weekly</p> <p>\$13,995</p> <p>2004 Mitsubishi Outlander Auto, AWD</p> | <p>\$130 Bi-weekly</p> <p>\$12,995</p> <p>2003 Mazda Protege5 Manual pwr. group, A/C</p> | | | | | | | | | | | | | | | | | | |
| <p>\$198 Bi-weekly</p> <p>\$18,995</p> <p>2003 Mitsubishi Eclipse Spyder GS manual, alloys</p> | <p>\$99 Bi-weekly</p> <p>\$9,995</p> <p>2003 Dodge Grand Caravan Sport A/C, captain chairs, alloys, 3.8L</p> | <p>\$148 Bi-weekly</p> <p>\$16,495</p> <p>2005 Mitsubishi Lancer OZ Manual, A/C, alloys, spoiler</p> | <p>Trade In Specials</p> <table border="0"> <tr><td>1991 Acura Integra</td><td>\$1,995</td></tr> <tr><td>1994 VW Golf GTI</td><td>\$3,495</td></tr> <tr><td>1993 Mazda 626</td><td>\$1,695</td></tr> <tr><td>1995 Pontiac Grand AM</td><td>\$2,995</td></tr> <tr><td>1998 Chev Venture</td><td>\$2,995</td></tr> <tr><td>1998 Olds Silhouette</td><td>\$2,995</td></tr> <tr><td>1993 Toyota Celica GT</td><td>\$2,495</td></tr> <tr><td>1999 Pontiac Grand Prix GT</td><td>\$2,995</td></tr> <tr><td>1996 Ford Winstar</td><td>\$1,295</td></tr> </table> | 1991 Acura Integra | \$1,995 | 1994 VW Golf GTI | \$3,495 | 1993 Mazda 626 | \$1,695 | 1995 Pontiac Grand AM | \$2,995 | 1998 Chev Venture | \$2,995 | 1998 Olds Silhouette | \$2,995 | 1993 Toyota Celica GT | \$2,495 | 1999 Pontiac Grand Prix GT | \$2,995 | 1996 Ford Winstar | \$1,295 |
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