

For Immediate Release

Contacts: Danica Laub, Mazda North American Operations, 949.727.6220
Tim Gilman, Mazda Information Bureau, 949.223.2313
Jeremy Barnes, Mazda North American Operations, 949.727.6844

**2008 MAZDA RX-8: CELEBRATING 40 YEARS OF CUTTING-EDGE
ROTARY POWER**

With an athletically sculpted exterior, a one-of-a-kind rotary engine and a thoroughly unique interior, the 2008 RX-8 is unlike any other sports car in the world. The RX-8 is high-powered, lightweight and perfectly balanced for nimble handling and supreme control, making it a car for the pure driving enthusiast. Powering the RX-8 is the world-renowned twin-rotor RENESIS rotary engine, which celebrates its 40th year of engineering success. Mazda has produced nearly two million vehicles powered by the rotary engine and RX-8 is the only mass-produced rotary-powered car in the world.

To help celebrate the 40th anniversary of the rotary engine, Mazda will offer a limited edition 40th Anniversary RX-8. Available in early 2008, the 40th Anniversary RX-8 will feature a special Metropolitan Gray exterior color with a Cosmo Red leather interior color scheme, unique 18-inch alloy wheels, suspension enhancements, fog lamps, silver engine cover and special badging.

“The RX-8 is truly a sports car in its own class with 4-passenger seating, ‘freestyle’ four-door design and, of course, powered by the Mazda rotary engine,” said Tetsu Nakazawa, RX-8 vehicle line manager.

The 2008 Mazda RX-8 is available as either a 232-horsepower model fitted with a six-speed manual transmission, or a 212-horsepower model fitted with a six-speed automatic with steering-wheel-mounted paddle shifters for a Formula 1-style driving experience. Both automatic and manual transmission cars come equipped with power windows, mirrors and door locks, cruise control and an AM/FM/CD audio system with six speakers.

LEGENDARY RENESIS ROTARY ENGINE

The lifeline of this powerfully agile sports car rests underneath the hood thanks to its advanced RENESIS (Rotary Engine *genesis* – or rebirth of the rotary engine) engine. The Mazda RX-8 remains the only mass-produced rotary-powered passenger car in the world.

By turning a triangular rotor in a cocoon-shaped combustion chamber, the RX-8's rotary engine efficiently performs the four processes of intake, compression, combustion and exhaust. The RENESIS engine is remarkably smooth and high revving – all the way to 9,000 rpm (7,500 rpm on Sport A/T-equipped models) – and offers a smaller engine footprint than traditional internal combustion engines (some 60 percent smaller and lighter than a comparably powered V-6, and 40 percent smaller and lighter than a four-cylinder). In fact, the packaging and styling that define the RX-8 would not have been possible had Mazda engineers chosen a conventional piston engine.

Improving upon 40 years of rotary designs, the RENESIS engine features side intake and exhaust ports with nearly 30 percent more intake area and twice as much exhaust area than its predecessors. The efficiencies gained through larger intake and exhaust ports exclude the need for forced induction.

The RX-8's normally aspirated 1.3-liter engine might appear diminutive to the untrained eye when compared to large-displacement V-8s or heavyweight V-10s or V-12s. However, through the incredible efficiencies of a rotary powerplant, an advanced three-stage intake system and an electronic throttle, the RENESIS engine delivers smooth, linear power on a grand scale.

The 2008 RX-8 does not sacrifice emissions for power, though. Through improvements to the port design, overlap between the intake and exhaust ports has been eliminated, significantly reducing exhaust emissions, improving fuel economy and allowing the car to meet the strict Tier2 Bin 5 Federal emissions classification. The effort made by Mazda engineers to improve emissions is a prime example of the concern for environmental impact maintained throughout the development process.

By placing the powerplant low and far back in the engine bay, in what Mazda calls an advanced front-midship layout, the center of gravity is lowered, which in turn improves vehicle balance. In addition, the fuel tank is placed ahead of the rear axle, and all seating is within the wheelbase and track of the car. Combined, these factors contribute to a perfect 50/50 vehicle weight distribution, low yaw-inertia movement and superb handling characteristics. With such excellent balance, it is little wonder the RX-8 feels right at home on the twists and turns of Mazda Raceway Laguna Seca, negotiating a tight freeway onramp or in stop-and-go traffic.

40 YEARS OF ROTARY

On May 30, 1967, Mazda launched the world's first twin-rotor rotary engine car, the Mazda Cosmo Sport. In the years between, Mazda has produced nearly two million vehicles powered by the rotary engine.

“Mazda is the only car company in the world to achieve success in volume production of rotary-powered cars and has done so for four decades,” said Nakazawa. “Only Mazda could have the engineering passion to pursue the rotary engine; it represents Mazda as a company that follows the road less traveled, and makes its own success where other have failed.”

The first vehicle Mazda sold in the United States was the 1970 R100, powered by the rotary engine. It was followed by the RX-2, RX-3, RX-4 and RX-5 Cosmo. The 1970s even saw Mazda install the rotary engine in its Rotary Pickup truck.

When Mazda launched the now-legendary RX-7 in 1979, it really shook up the sports-car establishment and set sales records never before seen with sports cars. Subsequent RX-7 generations were launched in 1986 and 1993, including the first production applications of turbocharging the rotary engine in the U.S. market. And when the company launched the innovative four-door sports car RX-8 in 2003, the rotary engine saw a dramatic update with the introduction of side porting, resulting in greatly reduced exhaust emissions and improved performance.

Looking towards the future, Mazda remains committed to the rotary engine for the long run. After nearly five decades of development, the company has capitalized on the fact that rotary technology is uniquely suited to burning hydrogen as a fuel, especially as compared to conventional piston engines. Mazda has been experimenting with research and development into both hydrogen-fueled rotaries and hydrogen rotary hybrid-electric vehicles as well, and already has hydrogen-fueled rotary-powered RX-8s on the road in Japan.

A RACE CAR AT HEART

The RX-8's demeanor on the track is not overlooked by the motorsports community. The same RENESIS engine found in production RX-8s is used in the professional Formula Mazda series, a popular open-wheel racing series run on the nation's most demanding race tracks. Formula Mazda is widely regarded as a training ground for developing drivers looking to build a career in motorsports. The fact that the series uses a showroom-stock, non-modified RENESIS engine is a testament to the power, reliability and light-weight of the RX-8 powerplant.

The RX-8 also campaigns in the Grand American Road Racing Association's Grand Am Cup Street Tuner (ST) division. The ST division consists of production cars driven straight from the showroom to the race track with limited racing modification. Here, the superb handling characteristics and near-bulletproof RENESIS engine already have taken the RX-8 to victory circle many times.

SUSPENSION AND STEERING

The RX-8 uses an aluminum double-wishbone front suspension, reducing unsprung weight over the use of steel components. By mounting the upper and lower arms on a highly rigid sub-frame, the long arms ensure linear alignment changes throughout the jounce and rebound of the front wheels. All wheels receive mono-tube gas-filled shock absorbers designed with large-diameter internal pistons and valving, which offer excellent road feedback and a smooth ride.

An electric rack-and-pinion power-steering system transmits just the right amount of road information back to the driver. Mazda engineers have chosen to pursue their own path by using an electric motor for steering assistance rather than a conventional power-steering pump. The electric motor provides additional assistance at low speeds to ease parking and reduces steering assistance at higher speeds to provide greater road feel, responsiveness and feedback. And, in keeping with the rest of the development on RX-8, it is far lighter and easier to package than a conventional power-steering rack.

ATHLETICALLY SCULPED EXTERIOR

The RX-8's unique "freestyle" four-door design is proof that a true sports car does not need to sacrifice space or convenience for performance. The advanced design of the rear-hinged rear doors, provides a large door opening, allowing adult-sized passengers to easily enter and exit the vehicle. This design is also advantageous when securing a baby or a small child in the back seat. With a spacious rear seat area providing ample passenger room for four full-size adults, and enough trunk space for a weekend's worth of luggage, this sports car proves its versatility.

Taut muscular lines give RX-8 the liberating look of an athlete in motion. The muscular styling maintains classic sports car proportions while adding a Zoom-Zoom edge that is unmistakably Mazda. Integrated throughout the exterior is the unique triangular rotor design, which clearly can be seen in the front fascia, head lamps, hood and rear bumper valence.

The RX-8's exterior styling presents a genuine sports car form, while the interior boasts a comfortable and intelligently designed cabin. An extremely low cabin floor allows the seats to be mounted low in the chassis, which, along with a low instrument cluster and hood, enhance driver visibility. Mazda designers concentrated on the shape of the front seat backs and the rear seat cushions to ensure adequate rear-seat knee room. Front seat slide-rails are positioned to allow maximum leg room for rear-seat passengers.

The rotary design element is incorporated through the interior of the RX-8 in creative ways, appearing in the seats, center console, shift knob and emergency brake. The stylish cabin also evokes a sense of luxury and high-end quality. Mazda's design team examined every aspect and component of the interior and has created an elegant, driver-centric atmosphere. Through the use of advanced ergonomic research, Mazda engineers established improper seating posture to be a cause of driver fatigue and built in optimum support in the front seats to help offset discomfort. In addition, the soft blue lighting used in the RX-8's instrument cluster was found to reduce eye fatigue and strain.

SUPERIOR SAFETY

When designing the RX-8, safety was given as much of a priority as was performance. For Mazda, the safety process incorporates both accident avoidance and accident protection. In effect, this approach to safety means the RX-8 can help the driver avoid various dangers and protect occupants in the unfortunate event of a collision. In rollover tests performed by the National Highway Traffic Safety Administration (NHTSA), the RX-8 achieved an impressive five-star rating.

Mazda engineers integrated numerous active and passive safety elements throughout the car. Active safety features, which require input from the driver, include the use of large ABS-equipped disc brakes on all wheels as well as precise steering and suspension systems. Dynamic Stability Control (available on Sport models with Performance package, standard on Touring and Grand Touring) delivers a superior level of handling that can be disabled when driving and road conditions allow safe operation.

Passive systems, or those that take effect automatically without the driver's involvement, also are present throughout the RX-8. Despite the absence of a center B-pillar, the RX-8 has an exceptionally rigid body, accomplished through the use of a series of locking pins, which hold the doors together and bind each door directly into the roof and floor. Integrating the frame components helps dissipate crash energy through the vehicle's structure.

Other standard passive systems on the RX-8 include front airbags, seat-mounted side-impact airbags and side-curtain airbags. Additionally, the front end and engine bay have ample crumple zones, the front seats are designed to reduce whiplash injuries, the brake pedal is designed to break away in the event of a collision of sufficient force to protect feet and legs and all four seating positions are fitted with three-point seatbelts. Even pedestrian protection was considered, as the RX-8 is fitted with Mazda's "shock-cone" hood design that yields more to the impact of a pedestrian onto the hood than a standard design, yet is strong enough to not deform in normal use.

TRIM AND WARRANTY

Three trim levels are available for both automatic and manual transmission RX-8s: a Sport trim, a Touring trim (adds HID headlights, fog lamps, moonroof, auto dimming mirror with Homelink® and Bose® audio system with 6-disc auto changer and DSC; adds 18-inch wheels, a limited-slip differential, sport-tuned suspension and larger front disc brakes to these items for A/T cars), and a Grand Touring trim (adds power-adjustable driver's seat with lumbar support, leather seating surfaces – heated front seats— and heated outside mirrors and Mazda Advanced Keyless Entry & Start system. A DVD-driven satellite-navigation unit is available as a stand-alone option and uses a single DVD for mapping the entire United States and portions of Canada.

All 2008 Mazdas come with a roadside assistance program. With a call to a toll-free number, owners can access roadside assistance 24 hours a day, 365 days a year throughout the United States and Canada. In addition, a comprehensive three-year/36,000-mile warranty covers every part on the vehicle except those subject to normal wear. Also, all 2008 models receive a five-year/60,000 mile powertrain warranty and a five-year/unlimited-mileage corrosion warranty.

Headquartered in Irvine, Calif., Mazda North American Operations oversees the sales, marketing, parts and customer service support of Mazda vehicles in the United States, Canada and Mexico through nearly 900 dealers. Operations in Canada are managed by Mazda Canada, Inc., located in Ontario, Canada, and in Mexico by Mazda Motor de Mexico in Mexico City.

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