2013 MAZDA6

Elegance, power, muscular stance – these are terms you don't often hear in the mid-size sedan segment of today's auto-industry. However, these are the terms that the 2013 Mazda6 lives by as it brings excitement, driving dynamics and fun to a class of vehicles typically reserved for doing the day-to-day taxi duty of the average American family. The 2013 Mazda6 offers attractive styling, a comfortably appointed interior and Mazda's Zoom-Zoom DNA as it continues to offer a segment something no other sedan does: a true "sports sedan."

The 2013 Mazda6 carries over the identity and character which shaped the vehicle from the beginning, leading the way toward offering mid-size sedan shoppers with a desired alternative to the status quo. Starting with appearance, the Mazda6 borrows some of its design cues from the iconic Mazda RX-8, which helps to add some spice to the alternative vanilla-flavored vehicles in the segment. No other vehicle in its class can match the muscular lines that stretch from the front fascia, through the headlamps, over the top of the prominent front-wheel arches and into the front quarter panel just before reaching the front doors. The powerful lines help to highlight the vehicle's sporty stance and exemplify the Mazda's intentions. The eye yearns for design beauty as it moves rearward on the vehicle.

The rake of the Mazda6 continues to tease the pupil as the B-pillar forms a line along the shoulders that moves rearward and then blends into the smoothly-shaped rear deck-lid. The low-slung roof completes the sleek and firm stance of the 2013 Mazda6 as it brings the C-pillar together right above its tightly-sculpted rear hips. The short rear overhang is another reminder of the sporty attitude of the Mazda6, showing the driver that their intentions are on the same wave-length, dynamic driving and corner-hugging traction is on the road ahead. The aggressive shape of the taillights matches that of the equally aggressive headlights, lending itself to the signature Mazda design heritage, enticing the driver to put the Mazda6 through its paces.

An Interior That Inspires

Mazda6's interior instills a striking first impression with its mostly black canvas accentuated by bold design statements of elegant wood grain pattern, satin silver and polished chrome. Multiple design elements run as one, from the T-shaped instrument panel to the similarly shaped triple-spoke steering wheel – no interior line was created by accident. All the eye-catching, soft-touch materials and contrasting colors naturally blend as one to create a cabin as visually inviting as the comfortably sculpted seats and intuitive instrument controls.

Blacked-out instrument faces with bright metallic markings, needles and trim pieces give the Mazda6 interior an exquisitely detailed look, creating a desired contrast between sporty masculinity and demure beauty. Crisp edges adjoin gently curved surfaces while unique patterns and textures further enrich the vehicle's interior. Use of exquisite black trim surfaces provide a rich, sporty feel that is unmatched in the mid-size sedan segment. High-mounted audio system and climate controls further enhance functionality while keeping the driver's eyes on the road.

The expansive feeling of the interior design adds an even roomier feel to the already spacious 101.9 cubic feet of passenger volume. Headroom, sans moonroof, is a cavernous 39.4 inches while the addition of the moonroof allows for 38.1 inches of driving-centric thoughts. For rear passengers, 37.3 inches of cranial buffering can be enjoyed.

Seats are highly refined with soft-look volumes combined with appropriately bolstered seat cushions and seat backs. Attractively curved surfaces create a seamless movement between the center console and the instrument panel. Entry-level Mazda6 interior surfaces feature plated metal accents matched with black or beige cloth upholstery. Top-of-the-line models feature leather seating, also available in black or beige tones.

Mid-Sized Breadth, Large-Scale Brawn

Mazda's reputation for providing world-class powertrains – both engines and transmissions – is rooted deeply within the Mazda6. Swift throttle response, strong acceleration and outstanding driver feedback are core to Mazda's spirit of engineering. Guaranteeing that Mazad6 customers enjoy the class-leading performance they've come to expect, two engine choices are offered on the mid-size sedan: a sprightly 2.5-liter four-cylinder and a robust 3.7-liter V-6.

The MZR 2.5-liter four-cylinder is the standard engine on all Mazda6 *i* models and delivers 170 horsepower at 6,000 rpm, its peak torque of 167 lb-ft at 4,000 rpm. This engine is mated to a close-ratio six-speed manual transmission on *i* Sport models with an available electronically-controlled five-speed Sport automatic transmission, which is standard on the rest of the *i* lineup –

Touring, Touring Plus and Grand Touring. The manual transmission harvests an EPA-rated 21 city/30 highway miles per gallon (MPG). When paired with the automatic, the EPA-tested fuel economy numbers are 21 city/30 highway MPG.

Advanced features include chain-driven dual overhead camshafts, four valves per cylinder, counter-rotating balance shafts located in the oil pan, and a block and head made up of aluminum construction to help manage weight. The crankshaft is forged steel for strength and durability and forged connecting rods minimize reciprocating weight while maintaining the strength requirements of the internal combustion engine.

Variable intake valve timing yields a smooth idle, low emissions and excellent high-rpm breathing capabilities. An injection-molded, nylon-reinforced-plastic intake manifold provides smooth internal passages while adding minimal weight to the overall engine package. Fuel is distributed to the intake ports via an electronically controlled sequential injection system. Ignition coils are modular units positioned directly above the spark plugs for seamless spark delivery. Shim-less bucket tappets require no maintenance and lightweight pistons are coated with a special anti-friction compound and fitted with low-tension rings for improved fuel efficiency.

To minimize noise, vibration and harshness (NVH), the damper at the forward end of the crankshaft is equipped with two tuned masses. At the output end, a flexible flywheel also diminishes NVH. The deep-skirt block is engineered for extra stiffness and main-bearing caps are fundamental and have a lower-block ladder-type reinforcement.

The 60-degree 3.7-liter V-6, designated MZI, offers a noticeable boost of power over the 2.5-liter I4 and is the standard engine for Mazda6 *s* models. With 272 horsepower produced at 6,250 rpm and 269 lb-ft of torque at 4,250 rpm, the MZI V-6 provides drivers with plenty of power and torque to get up and go. As power is nothing without control, Mazda engineering tests show that the MZI V-6 maintains audible discreetness, more-so than its competitors at full throttle. Available only with the six-speed Sport automatic transmission, the EPA-rated MPG is 18 city/27 highway.

The list of advanced features includes light and stiff aluminum construction for the block and cylinder heads, a forged-steel crankshaft with induction-hardened journals and variable intake-valve timing. Dual-overhead camshafts are chain-driven and equipped with maintenance-free direct-acting bucket tappets.

Cast-in iron cylinder liners provide a strong and reliable bore surface. The intake manifold is injection-molded nylon-reinforced plastic to save weight. Two close-coupled catalytic converters minimize the time required, following a cold start, for the emission controls to reach full effectiveness. A dual exhaust system provides efficient exhalation for the engine, leading to an excellent high-rpm powerband.

To achieve best-in-class performance and quietness, the crankshaft of the 3.7-liter V-6 has a full complement of counter-weights and a dual-mass damper. The aluminum cylinder-head covers are rubber isolated to minimize the amount of radiated valvetrain noise.

One Zoom-Zoom feature organically grown in the renowned Mazda RX-8 sports car and infused into every Mazda6 is the Active Adaptive Shift (AAS) control. AAS senses winding road conditions and provides a gear ratio (usually third) with optimum acceleration response when exiting a corner. Decelerating into a bend, AAS quickens down-shift speed to provide maximum engine braking. During passing maneuvers, following a merge into traffic, AAS holds lower gears longer to maximize acceleration.

Prioritizing Precision, Improving Performance

The ability to offer a broad spectrum of customers a vehicle that is utterly dependable, perfectly designed and manufactured as well as pleasing to drive is every car company's dream. Achieving such lofty goals requires a deep commitment and the willingness to sweat the small stuff. Elevating the Mazda6's quality so that it becomes the mid-size segment's shining star was a monumental undertaking, with no diminutive detail being overlooked.

To ensure the highest level of quality, reliability and durability, a fleet of Mazda6 vehicles were driven for more than one million miles in early 2008, prior to the launch of the 2009 model. At AutoAlliance International (AAI) in Flat Rock, Mich., where the 2013 Mazda6 was manufactured, a sample of cars were driven on a track to test the steering for accuracy, drift and pull with a torque meter. In addition, every production Mazda6 is run on a chassis dynamometer to check shift quality, electrical performance and other dynamic functions.

When launched as an all-new model in 2009, major revisions were made to the front suspension and damper valve in the power

steering gear to help improve straight-ahead tracking over a wide variety of road surfaces. In order to verify that wind and road noise were lower than Mazda's desired specifications, an Aachen Head audio recorder was belted into the vehicles for inspections. While past inspection procedures primarily involved visual checks, hands-on and dynamic checks are conducted more today than ever before.

Production adjustments didn't stop there. Painting each Mazda6 is a 34-step process that begins with electrically-charged primers and continues with sealers, base and color coats and a trip through a 340-degree bake oven. This detailed paint process ensures all Mazda6 sedans arrive at dealerships looking as vibrant and polished as possible.

Mazda was not only looking for the Mazda6 to drive well, audible civility is very important within the mid-size sedan class and Mazda paid close attention to their findings. To minimize wind noise while at the same time improving fuel economy, Mazda aspired to reach lofty aerodynamic targets early in the Mazda6's development process. A large panel under the powertrain, plus air deflectors near the front tires and two covers in the rear floor area, smooth under-car air flow. Computational fluid dynamic (CFD) analysis helped eliminate noise-causing turbulence, which was noticeable around the outside rearview mirror mounting areas.

Wind-tunnel tests also reported a lower coefficient of drag at 0.27, a 10-percent improvement over the first-generation Mazda6. Very low aerodynamic lift at high speeds and in cross winds improves both directional stability of the vehicle as well as evokes driver confidence in handling ability.

Dressed to Impress

Available as two models -i and s – the Mazda6 sports sedan offers a varying array of trim levels, options and equipment packages to match the needs and wants of discerning mid-size sedan buyers. By far, the Mazda6 is the most comprehensive nameplate in the brand's lineup.

Standard amenities on the entry-level Mazda6 *i* Sport equipped with the MZR 2.5-liter I4 engine include 16-inch wheels, automatic headlight shutoff, air conditioning with pollen filter, power door locks and windows with a driver's side one-touch up/down feature, height-adjustable driver's seat, a tilt and telescopic steering wheel, cruise control, steering wheel-mounted audio and cruise controls, 60/40 split fold-down rear seats, a center IP display, AM/FM/CD/MP3-compatible six-speaker audio system and remote keyless entry with retractable key.

The Mazda6 *i* Touring adds 17-inch aluminum alloy wheels, P215/55R17-sized all-season tires, fog lights, an eight-way power driver's seat, Bluetooth® hands-free audio and phone connectivity, an in-dash six-disc CD changer, a trip computer, premium interior trim finishes as well as a leather-wrapped steering wheel and shift knob. Building on the *i* Touring, the Mazda6 *i* Touring Plus adds 18-inch alloy wheels, folding outside mirrors with turn signal lamps, ground illumination (when opening doors), a power moonroof, electroluminescent interior gauges, an anti-theft security system and a Blind Spot Monitoring (BSM) system.

In addition to the same 18-inch alloy wheels and P235/45R18 rubber on the Touring Plus, the upper level-trimmed Mazda6 is Grand Touring sees even more luxurious niceties with the addition of a 265-watt Bose® Centerpoint® 10-speaker Surround Sound System with AudioPilot®, dual-zone automatic climate control, leather-trimmed seats with heated front seats, a "Welcome" lighting system and a multi-information display (MID) fitted with a built-in rearview camera.

Equipped with the bigger MZI 3.7-liter V-6 engine, Mazda6*s* Grand Touring models include a six-speed Sport automatic transmission and chrome dual exhaust finishers over the *i* Grand Touring model. The *s* Grand Touring comes with the same 18-inch alloy wheels and P235/45R18 tires as the *i* Grand Touring trim level.

For *i* and *s* Grand Touring models only, an available Technology Package adds the Mazda Advanced Keyless Entry System, push-button start, memory driver's seat, front passenger power seat, auto on/off xenon headlights, auto-dimming rearview mirror with HomeLink®, rain-sensing windshield wipers, heated exterior mirrors, driver's side auto-dimming outside mirror, LED combination taillights and Sirius Satellite radio with a complimentary four-month subscription.

A navigation system, which must be paired with the Technology Package, also is available and offers a DVD-based system with voice commands, a seven-inch LCD touch screen, real-time traffic and a rearview camera (viewed within the larger navigation screen, not via the smaller MID).

All Mazda6 models are provided with high standards in safety, including six airbags (advanced dual front, front-seat mounted and full-length side curtain), whiplash-reducing front headrests, Anti-lock Brake System (ABS), Electronic Brakeforce Distribution (EBD) with Brake Assist, Dynamic Stability Control (DSC) with a Traction Control System (TCS), a tire pressure monitoring system (TPMS), "Triple H" body construction, front and rear side-impact door beams, a foldaway brake pedal assembly, three-point safety belts for all seating positions, front seatbelt pretensioners with force limiters, a trunk entrapment release system as well as Lower Anchors and Tethers for Children (LATCH).

Also, all Mazda vehicles come with the Mazda Certified Roadside Assistance Program. Using either the toll-free number or free Mazda Assist app for iOS- and Android-operated mobile devices, vehicle owners and their family members can contact roadside assistance 24 hours a day, 365 days a year throughout the United States and Canada. In addition, the New Vehicle Limited Warranty includes a comprehensive three-year/36,000-mile warranty, which covers every part of the vehicle except those subject to normal wear, a five-year/60,000-mile powertrain warranty and a five-year/unlimited-mileage corrosion warranty.

Mazda North American Operations is headquartered in Irvine, Calif., and oversees the sales, marketing, parts and customer service support of Mazda vehicles in the United States and Mexico through nearly 700 dealers. Operations in Mexico are managed by Mazda Motor de Mexico in Mexico City. For more information on Mazda vehicles, including photography and broll, please visit the online Mazda media center at www.mazdausamedia.com.

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