



mazda



Mazda3 MPS  
6009  
JULY 2009

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Mazda3 MPS

# *NEW GENERATION MAZDA3 MPS JULY 2009*

Table of Contents		Page
1	At a Glance	2
2	Pricing	9
3	Powertrain	Exhilarating Performance 10
4	Design and Aerodynamics	Expressive and Aggressive 13
5	Chassis and Structure	One-With-The-Car Feeling 18
6	Comfort, Function and Equipment	The Driver's Environment 22
7	Refinement	Quieter Cabin 26
8	Safety – Active and Passive	Cutting-Edge Technologies 27
9	Environment	Recyclability, Corporate efficiency 29
10	Sporting Heritage	Bred for Performance 30
11	Body Colours	Four Colours: Metallic/Mica Standard 31
12	Specification & Dimensions	32
13	Equipment	33

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# *1. A T A G L A N C E*

Since its introduction in 2006 the turbocharged Mazda3 MPS hot hatch has become renowned for its performance, style and Zoom-Zoom handling.

The New Generation Mazda3 MPS pushes design and driving performance to the limit, further cementing its place as Mazda's flagship performance model and one of Australia's most sought-after sports compacts.

## **New Generation Mazda3 MPS Range**

- New Generation Mazda3 MPS blends high performance and sporty driving with expressive design and high levels of active and passive safety equipment
- Mazda's design team has given New Generation Mazda3 MPS a more expressive and aggressive new look that demonstrates a clear evolution
- Mazda's engineers left no stone unturned in the quest to enhance and further refine the already impressive dynamics of Mazda3 MPS while keeping weight as low as possible
- New Generation Mazda3 MPS delivers a class-leading combination of performance, driving dynamics, safety and comfort features ensuring that it offers some of the best value for money in its class

## **Mazda3 MPS Global**

- First introduced in 2006
- Global sales of Mazda3 MPS have exceeded 30,000 units

## **Mazda3 MPS in Australia**

- First-generation Mazda3 MPS was launched in Australia in July 2006
- Australian sales of Mazda3 MPS to date in excess of 1,500 units (as at May 2009)

## **Marketing**

- The majority of Australian buyers for the Mazda3 MPS have been males aged between 20 and 34 who enjoy driving
- With advances in design and refinement, it is expected that the New Generation Mazda3 MPS will appeal to a wider audience of driving enthusiasts who seek performance but with the looks to match. New Generation Mazda3 MPS will attract a mix of both younger and more mature buyers with the majority expected to be predominantly male and aged between 35 and 49
- Outgoing, successful and image conscious, the target customer for New Generation Mazda3 MPS is career focussed and enjoys a range of leisure activities such as dining out, catching a movie, going to the gym and listening to music

## **Sales**

- Mazda Australia expects to sell an average of 70 units per month with 60% of these being the Luxury model

# New Generation Mazda3 MPS Range Highlights

*Page 32: Full specification and equipment list.*

## **Mazda3 MPS 5-dr hatchback**

- **Manufacturer's List Price (MLP) \$39,690**
- 2.3-litre Direct Injection Spark Ignition (DISI) turbocharged in-line four-cylinder 16 valve DOHC engine with 190kW/380Nm
- Fuel economy of 9.9L/100km (combined cycle)
- Revised six-speed manual transmission
- Dynamic Stability Control (DSC), Traction Control System (TCS), Anti-lock Braking System (ABS), Electronic Brake-force Distribution (EBD), Emergency Brake Assist (EBA), dual side front airbags, dual side airbags, dual curtain airbags and active front head restraints
- 4.1-inch colour multi information display that integrates satellite navigation, Bluetooth® phone connectivity, ambient temperature gauge, maintenance monitor and a trip computer comprising current and average fuel consumption, distance-to-empty, average speed and speed alert
- Dual zone climate control air-conditioning, 6-disc in-dash MP3/WMA-compatible CD-player, AUX-in jack, Bluetooth audio, cruise control, driver's seat with 8-way power adjustment with 3-position memory function and lumbar adjust, leather wrapped gear shift knob and steering wheel, overhead sunglasses storage box, power windows and mirrors, smart keyless entry and engine start, tilt and telescopic steering wheel and variable intermittent wipers
- 18 inch alloy wheels with 225/40 tyres, fog lamps, LED tail lamps, side indicators in exterior mirrors, sports body kit including front and rear aero bumpers, rear spoiler, side skirts and unique MPS sports grille

## **Mazda3 MPS Luxury 5-dr hatchback**

- **Manufacturer's List Price (MLP) \$43,290**
- Mazda3 MPS equipment plus:  
Auto dimming rear view mirror, bi-xenon headlamps with Adaptive Front-lighting System (AFS) and auto on/off, premium Bose amplifier and 10 speakers with subwoofer, front wipers with rain-sensing function.

# Design Changes

## Exterior Design Changes

- Powerful emotional design with a richer expression and more dynamic stance
- Design based on the New Generation Mazda3 hatchback, evolved for a sportier and more aggressive appearance
- All design elements focus on and flow to the centre to express power and dynamism
- New bonnet air-intake optimises intercooler efficiency while heightening the sense of aggression
- Front fender and bumper designs exclusive to the MPS
- Wedge-shaped, curving character lines on the side panels and side skirts for a lower looking centre of gravity
- New, large floating rear spoiler
- A purposeful new face that integrates the front grille's lower section into the five-point grille to further distinguish the unique character of the Mazda brand
- Aerodynamics improved with drag coefficient (Cd) of only 0.32 (prev 0.34)
- Minimal gaps between body panels signify solid quality
- New 18 inch aluminium alloy wheels with the same three-dimensional design theme as the wheels on the Mazda RX-8 sports coupe
- New Generation Mazda3 MPS is 75mm longer, 5mm wider, and 5mm lower

## Interior Design Changes

- Noise, Vibration and Harshness suppression improves by up to 11 percent thanks to aerodynamic refinements, increased suspension rigidity, optimal positioning of vibration dampening material, increased body and panel rigidity
- Driver-oriented dashboard design gives a roomy, wrap-around sporty feel
- State of the art ergonomics and Human-Machine Interface (HMI) with 'zone layout' for less distraction from the road
- Use of soft-grained surface material on the upper section of the dashboard combines with minimal parting lines to achieve a vastly improved look of interior quality
- Sophisticated interior colour scheme incorporating red trim highlights
- Sports bucket seats to provide further support and finished in half leather / half cloth with red accents

- Driver's seat features 8-way power adjustment with 3-position memory function and lumbar adjust
- Adoption of front active head restraints provide additional protection in a rear impact
- New tachometer with red *MPS* logo
- New LED turbo boost gauge
- Practical centre console leather with sliding armrest
- Gearshift lever placed closer to driver for easier shifting
- Stirrup-shaped head restraints have been introduced, which are lower and less obstructive when looking rearward
- New 4.1-inch multi-information display (MID) incorporating satellite navigation, Bluetooth® phone connectivity, ambient temperature gauge, maintenance monitor and a trip computer
- Hands-free system compatible with many Bluetooth®-equipped mobile phones and MP3 players
- New interactive lighting control and illumination entry system
- Premium Bose amplifier now with 10 speakers including subwoofer on *MPS Luxury*

# Mechanical Changes

## Powertrains

- 2.3-litre Direct Injection Spark Ignition (DISI) turbocharged in-line four-cylinder 16 valve DOHC engine with 190kW and 380Nm
  - 190 kW @ 5,500rpm
  - 380 Nm @ 3,000rpm
  - 9.9L/100km (prev: 10.0)
  - Reduced CO<sub>2</sub> emissions 235g/km (prev: 238)
  - Fuel tank capacity increased by 5 litres to 60 litres
  - Bonnet mounted air intake helps to improve intercooler airflow and performance at higher ambient temperatures
  - Revised gear ratios and engine calibration for more refined power delivery
  - Advanced boost pressure control suppresses sudden torque peaks for linear torque delivery
  - Left and right drive shafts optimised to reduce torque steer
  - New catalyst uses single nanotechnology delivers cleaner emissions
  - Push-button engine start

## Chassis and Safety

- New Generation Mazda3 underwent more development kilometres than any previous Mazda
  - 20 locations in 11 countries
  - 1.28million km including:
    - 880,000km on real-world roads in target markets
    - 175,000km at Mazda's Miyoshi Proving Ground
    - 100 laps of famed Nurburgring (2000km)
    - Temperatures ranging from -25deg to +50deg Celsius
- Major evolution of Mazda's small-car platform delivers better balance between sporting prowess and ride refinement
- Larger dimensions, increased body strength and crash-worthiness and higher safety and equipment levels
- Special reinforcements inside the front cowl member gussets and a large tunnel member for increased body stiffness



- Modified coil spring rates for MacPherson strut front and multi-link rear suspension
- Larger diameter stabilisers with longer mount spans achieve greater roll linearity
- Special dampers with increased damping strength contribute to higher roll stiffness
- Improved response to steering wheel action achieved with adoption of an increased number of highly rigid steering gear mount bushes
- New wider Dunlop 18-inch tyres with improved grip, more rigid sidewalls and damping strength for more direct steering feel and a stronger one-with-the-car feel
- Electro-hydraulic power assisted steering (EHPAS)
- New Generation Mazda3 MPS up to 11 percent quieter at 60km/h
- 17 percent increase in use of high and ultra-high strength steel
- Double-digit increases in diagonal displacement criteria for improved handling and safety

## **Safety**

- Dynamic Stability Control (DSC)
- Traction Control System (TCS)
- Anti-lock Braking System (ABS)
- Electronic Brake-force Distribution (EBD)
- Emergency Brake Assist (EBA)
- Driver's front airbag
- Passenger's front airbag
- Front-side airbags
- Front and rear curtain airbags
- Active front head restraints
- Intrusion-minimising brake and clutch pedals

## *2. PRICING*

Prices listed in this press kit were correct as at the time of launch. For any updates to pricing go to [www.autonews.net.au](http://www.autonews.net.au) or [www.autodeadline.com.au](http://www.autodeadline.com.au)

**With New Generation Mazda3 already widely recognised as being one of the best value small vehicles in Australia, Mazda3 MPS follows suit offering impressive levels of performance, refinement and equipment at a highly competitive price.**

### **Pricing**

Mazda3 Neo	Sedan & Hatch	6MT	\$21,990
Mazda3 Neo	Sedan & Hatch	5AT	\$24,050
Mazda3 Maxx	Sedan & Hatch	6MT	\$24,990
Mazda3 Maxx	Sedan & Hatch	5AT	\$27,050
Mazda3 Maxx Sport	Sedan & Hatch	6MT	\$27,690
Mazda3 Maxx Sport	Sedan & Hatch	5AT	\$29,750
Mazda3 SP25	Sedan & Hatch	6MT	\$30,690
Mazda3 SP25	Sedan & Hatch	5AT	\$32,950
<b>Mazda3 MPS</b>	<b>Hatch</b>	<b>6MT</b>	<b>\$39,690</b>
<b>Mazda3 MPS Luxury</b>	<b>Hatch</b>	<b>6MT</b>	<b>\$43,290</b>

### **Options**

Safety Pack (Neo) – side and curtain airbags	\$500
Luxury pack (SP25)	\$2,400
Power sliding glass sunroof (SP25)	\$1,600

## *3. POWERTRAIN*

### **Exhilarating Performance**

**With Mazda3 MPS already one of the world's fastest production hot hatches there was no need to focus on further increasing power. Instead, the development team focussed on harnessing that power more effectively to provide an exhilarating and refined drive.**

The power and easy-to-control torque characteristics of the New Generation Mazda3 MPS turbocharged petrol engine are combined with optimised gear ratios that ensure smooth shift operation for sporty driving. This is matched to a stiffer body, a suspension system with greater damping strength, Mazda's electro-hydraulic power assisted steering (EHPAS), as well as specially tuned brakes. Together, they deliver a high-performance package with precise, controllable handling, and powerful braking that is fun to drive on a daily basis.

#### **Engine – high-performance DISI technology**

The New Generation Mazda3 MPS is powered by Mazda's MZR 2.3L DISI Turbo, a high-power in-line four-cylinder petrol engine. This acclaimed engine has been further refined and delivers the same impressive power and torque numbers as the outgoing model: maximum output of 190 kW at 5,500 rpm and maximum torque of 380 Nm at 3,000 rpm. Pairing direct-injection with a turbocharger allows the engine to achieve performance that is on par with larger displacement engines. Resulting is one the world's best performing front-wheel drive sports compacts.

#### **High-performance compact**

Realising the right balance between lightweight and high rigidity through the effective use of high-tensile steel sheeting – including 1,480 MPa ultra-high tensile steel – means the New Generation Mazda3 MPS body shell easily supports the top speed of 250 km/h and 0-100 km/h acceleration in just 6.1 seconds.

## **Reduced fuel consumption and Euro Stage 4**

The New Generation Mazda3 MPS delivers surprisingly good environmental performance and fuel efficiency for a car offering this kind of power. Optimised aerodynamics helps reduce fuel consumption from 10.0L/100 km on the outgoing model to 9.9L/100 km on the New Generation Mazda3 MPS. First introduced on the New Generation Mazda3 is the world's first single-nanotechnology, fast-reacting catalytic converter, which delivers cleaner emissions and Euro Stage 4 compliance – while using fewer precious metals.

## **High torque from direct-injection**

The latent heat of vaporisation generated by the MZR 2.3L DISI Turbo when atomised fuel is injected directly into a cylinder at pressures of up to 11.5 MPa reduces the temperature in the combustion chamber (in-cylinder cooling effect) and improves air-fuel mixture charging efficiency. This approach increases torque of the New Generation Mazda3 MPS by about 10 per cent at around 3,000 rpm when compared to turbo engines injecting fuel via regular intake ports.

The result is a smooth and flat torque profile with plenty of power that is easy to control using a single-scroll turbo charger. The intercooler is the same size as on the previous model, but the new air intake mounted on the hood delivers a supply of cool air that better ensures stable cooling performance.

## **Advanced torque management**

The stiffness of the left and right drive shafts is optimised to minimise torque steer. Engine optimisations help to make this powerful, high-torque front-wheel drive vehicle easier to handle when enjoying strong acceleration. These measures include intake volume and boost pressure control that suppresses sudden torque peaks for smoother, more linear torque characteristics.

## **New bonnet air intake**

Engine output is more consistent thanks to the new bonnet mounted intercooler scoop that not only improves intercooler airflow when compared with the outgoing MPS, but also frees up grille space for a fresh air duct to feed the engine's intake. Breathing cooler air improves efficiency, boosting real world power and fuel economy.

## **Six-speed manual transmission**

The six-speed manual transmission in the New Generation Mazda3 MPS uses a compact, three-shaft design that keeps the overall length the same as a five-speed manual transmission. It uses a wide gear ratio setting that can fully exploit the wide torque band of the DISI Turbo engine, with a sixth gear that contributes to a quieter ride and improved fuel economy when driving at high speed.

Each gear is set to a higher speed total gear ratio than on the previous model. Of particular note is the natural feel of shifting between first and second gear as the car picks up speed, as well as the smooth feel of successive shifts while accelerating. The gear shift lever is now also positioned closer to the driver further enhancing the easy-to-shift feel.

Triple-cone synchronisers for first, second and third gears and a double-cone synchroniser for fourth gear optimise the effort required to make shifts and establish the right balance between a short, responsive stroke and pleasing feel to gearshift operation. In addition, the transmission uses low-viscosity fluid, which significantly reduces the effort required for shifting when the engine is cold.

## ***4. DESIGN & AERODYNAMICS***

### **Expressive and Aggressive**

The design theme for the New Generation Mazda3 called on the development team to evolve the model's visual identity to create a sportier, more aggressive appearance. The end result is a more emotionally appealing design that takes the sporty, agile compact nature of the New Generation Mazda3 hatchback to a new level of sporty refinement.

#### **Exterior design: Sportier and more aggressive**

##### **Centre-focus Design, Panel Sculpturing and a Cleaner Look**

The New Generation Mazda3 MPS expresses next-generation Mazda design DNA that gives it a subtle aggressiveness and sets it apart in the compact segment. It has a clean and dynamic design with few protruding surfaces for a look of solid build quality.

To achieve this effect, designers employed a centre-focus design at the front and back. For example, all lines at the front of the car focus on a centre point at the top of the five-point grille and a new, subtle character line in the middle of the bonnet serves as a centre axis. The lines running from the A-pillars along the sides of the bonnet move inwards to the centre of the grille. The headlamp inner lines, front fender lines and the frame of the front grille all move inwards towards the centre as well.

For a clean, well-built look there is a new windshield wiper arm design, washer nozzles sit inside the cowl and front window mouldings flow smoothly into the roof mouldings.

#### **Front end**

A new air intake for the intercooler is introduced to the centre of the New Generation Mazda3 MPS bonnet, hinting at the power beneath. The front quarter panel and front bumper designs are exclusive to the MPS, while subtle intonation added to the surface and character lines give the exterior an expressive and dynamic flair. The Mazda five-point grille and lower bumper sections share the same black metallic paint finish and are complemented by round fog lamps. On the Mazda3 MPS Luxury

cylindrical bi-xenon headlamps with boomerang shaped accents further underscore its premium character.

### **Silhouette and rear end**

At the sides, subtle wedge-shaped and curving side character lines, along with a side skirt, accentuate the car's sporty, low centre of gravity.

The view from the rear features a large floating rear spoiler that complements the car's aggressive front end and adds to the compact's sporty image. LED tail lamps have an inner lens that adds a sense of greater transparency when the lamps are not lit. Like the front, the rear of the car focuses all components on the Mazda badge and has bold curves and a low centre of gravity. The rear end is a product of Mazda's advanced panel stamping technology with a three-dimensionality that is powerful and strong.

### **One of the segment's best for aerodynamic performance**

The New Generation Mazda3 is more aerodynamic – reducing wind noise and fuel consumption. Repeated clay model development and wind tunnel tests brought improvements to every detail of aerodynamic performance before the final design was chosen.

In total, designers conducted 304 hours of wind tunnel testing over 34 days at Mazda's Miyoshi Proving Ground. This revealed where the flow of air could be optimised while also minimising turbulence and eddies on each part of the body. The process involved day after day of intensive work as the clay models were shaped, refined and modified in millimetre increments.

Mazda designers concentrated on achieving the right balance of improved aerodynamic performance and a perfect design for the front. It was a process that involved repeated discussions and tests. Their hard work produced a fusion of form and function that gives New Generation Mazda3 MPS a fresh, distinctive front 'face' and achieves an impressive drag coefficient of 0.32 (previously 0.34).

From the front grille, with a projected area of 2.217m<sup>2</sup>, to the roof, the underbody and the rear end aerodynamic optimisation measures contribute to driving stability and low wind noise at high speed.

The grille opening is kept small – it's actually 70 percent of the size of the combined openings on the first-generation Mazda3 – to concentrate wind pressure, lessen the intake of air and drag, while directing unwanted air smoothly over the body. A new front bumper reinforcement flange ensures smooth air flow here. A new cooling fan speed flap prevents the fan from causing drag at high speed, while an air guide in the front bumper directs air straight to the radiator and cooling system where it's needed. The front upper body corners direct air smoothly along the upper side body and a special A-pillar design prevents air-flow separation and the turbulence associated with it.

At the back of the New Generation Mazda3 MPS the rear lamps are shaped to reduce turbulence. To keep air flow smooth and turbulence at a minimum under the car, new front tyre deflectors are introduced (similar to the horseshoe deflectors first seen on Mazda6).

Beginning with the New Generation Mazda3 five-door hatchback, which has one of the segment's lowest coefficients of drag, MPS developers added a number of exterior features optimised for aerodynamic efficiency.

These include the large front and rear bumpers, a large floating rear roof spoiler and front under-spoiler. The result is aerodynamic performance that provides stability and easy control when travelling straight, changing lanes, or overtaking other vehicles at high speeds. The shape of the A-pillars and door mirrors were also designed keeping aerodynamic efficiency in mind, while increased rigidity around the door sashes delivers improved sealing of the doors to reduce wind noise.

### **Aerodynamic performance – New Generation Mazda3 MPS**

Cd value	Coefficient lift (front)	Coefficient lift (rear)	Front projection area
0.32	0.03	0.03	2.217m <sup>2</sup>

### **Wheels and tyres**

Mazda introduces new 18-inch (18 x 7.5J) aluminium alloy wheels designed exclusively for the Mazda3 MPS using the same rotary design theme as the Mazda RX-8 wheels. These have a strong, three-dimensional form that helps the car look nimble and aggressive when seen from the side.



## **Interior design: Refined and driver-oriented**

**When seated inside the New Generation Mazda3 MPS there is no doubt that this really is a driver's car offering an increased level of refinement and comfort. Every interior detail embodies an optimal balance between aesthetics and function for a clean, uncluttered look. The quality feel of each part has been improved, high quality materials used and interactive lighting introduced to create an interior that is great to be in and use on a daily basis.**

### **Front seat area**

The dashboard of the New Generation Mazda3 MPS is designed to give a roomy feel at the front. This is combined with a large centre console and a driver-orientated, wrap-around cockpit with just the right feeling of snugness. Exacting calculation was applied to designing the slant of the centre console and in positioning the gearshift lever closer to the driver.

### **The "Sweeping S" Dashboard Design**

When seen from the side the dashboard sweeps from the base of the windshield and then down for a distinctive concave shape. The floor console between the seats rises up to meet the centre panel in a smooth, convex shape. Together, this forms a 'sweeping S' design that is unique and dynamic.

The dashboard adopts a single hood design that begins on the far left edge of the centre console and sweeps in a wide arch up and over to the outer side of the driver cluster for a quality and sporty look.

### **New turbo boost gauge**

The hoodless independent blackout speedometer and tachometer express sportiness through their design. The tachometer features a red *MPS* logo and a needle that travels 260 degrees as opposed to the 190-degree rotation on other Mazda3 models. The instrument cluster for the New Generation Mazda3 MPS also includes an LED turbo boost gauge positioned between the meters which heightens the car's high-performance feel.

### **Semi-bucket front seats**

The New Generation Mazda3 MPS provides semi-bucket front seats for a great fit and exceptional torso and thigh support, a real must for a performance vehicle. The MPS upholstery features an exclusive black base colour with a red graphic design and red stitching.

### **Materials and colour**

The Mazda3 MPS development team was careful in selecting materials and surface finishes for the interior to ensure they will excite the driver and passengers every time they enter the car. Black is the keynote colour employed throughout the interior, while the seats and trim fabric have an organic red graphic design. This exclusive MPS design is seen throughout, with red stitching enhancing the sporty interior character on the steering wheel, seats, door trim, shift lever boot and centre armrest.

## *5. CHASSIS & STRUCTURE*

### **One-with-the-car Feeling**

**Based on the New Generation Mazda3 but with further modifications, the New Generation Mazda3 MPS adopts chassis systems designed to deliver agile handling, superior roll control and a flat ride that is comfortable and predictable. The new model's rigid body shell and optimised suspension with electro-hydraulic power assist steering get the most out of the car's compact dimensions and lively engine to deliver optimal one-with-the-car driving feel. Overall, the New Generation Mazda3 MPS perpetuates the lightweight strategy that characterises Mazda engineering.**

#### **High body rigidity**

The New Generation Mazda3 MPS body shell has been strengthened in precisely the locations subjected to the most stress, to ensure handling befitting of a new generation Mazda compact as sporty as this.

The joints of the header junction are strengthened by two rows of vertical spot welds. A large corner radius is adopted for the door openings and a new roof gusset is employed between the roof and the B-pillar. The body seals for the wheel arches and the front hinge pillars are now weld-bonded for extra rigidity and an increased number of spot welds and weld-bonding is used on the door openings. A strut bar is introduced between the cowl member and the front suspension towers for additional strength.

The D-pillars and the rear end and header use a robust, closed-section structure for excellent stiffness. A brace bar is introduced to the rear suspension towers, the number of spot welds on the tailgate opening increased and a large corner radius is used. With these body shell measures, along with an increased use of high and ultra-high-strength steel throughout, the New Generation Mazda3 has extremely rigid structures with little deformation even at the wide opening of the hatchback's tailgate.

Diagonal displacement around the tailgate area has been improved by 48% while diagonal displacement of the rear suspension has been improved by 11%.

Based on the highly rigid body of the Mazda3 five-door hatchback, the New Generation Mazda3 MPS adds reinforcements inside the front cowl member gussets to strengthen the joints between the rear

suspension towers and rear floorboard, and employs a large tunnel member. These and other local reinforcements effectively increase body rigidity and greatly improve the new model's dynamic robustness.

### **Suspension system**

Attached to this highly rigid body is a MacPherson strut front suspension and Mazda's multi-link rear suspension. These ensure agile response to steering input, superior roll control and a predictable, comfortable ride. At the front axle, the New Generation Mazda3 delivers superior roll control with a stabiliser mounting span increased by 20mm. A stronger crossmember tower is introduced that is made of stamped metal, the structure here was changed to make the cross-arm thicker and the crossmember bushings were optimised to deliver excellent lateral rigidity.

The multi-link rear suspension has a centre member with a new shape that contributes to lateral strength and good road holding. Like the front suspension, the mounting span of the rear stabilisers are larger, which improves roll control.

The coil spring rates for both the MacPherson strut front suspension and multi-link rear suspension are modified exclusively for the MPS with the rear having been made firmer and the front softer resulting in improved control during cornering. Special tuning to support the impressive power of the MPS and provide satisfying driving performance also includes the introduction of larger diameter stabilisers than on the naturally aspirated New Generation Mazda3 and an increased span for the stabiliser mounts to achieve greater roll linearity. Special dampers for the MPS increase damping strength and combine with the coil springs and stabilisers to achieve higher roll stiffness than on the naturally aspirated Mazda3 models.

### **Newly-developed tyres**

The Dunlop 225/40R18 tyres adopted for the MPS are wider than on the previous model while grip has been improved. By improving the grip of the tyres, the rigidity of their sidewalls and damping strength – along with the systems that bear the input from the tyres, including body rigidity, suspension rigidity, and steering support rigidity – the New Generation Mazda3 MPS delivers response with a more direct feel, and a stronger sense of oneness between the driver and car.

The result is a sporty drive that is more refined than on the previous model, even at high speeds. It delivers better response, greater stability and a flatter ride with fewer undulations, even when entering sharp curves or traversing uneven road surfaces. As part of the process to ensure this, extensive high-speed test drives were conducted at Germany's famed Nürburgring.

### **Steering updates and EHPAS**

The New Generation Mazda3 MPS now employs three highly rigid steering gear mount bushings instead of the two used on the previous model. Increasing the number of steering gear mount bushes creates an optimal balance between rigidity feel and low vibration. The steering gear bushes also have a softer setting in the straight-ahead position, which does away with unwanted vibrations to the steering wheel. And finally, a larger gear cylinder diameter is used to ensure excellent power assist function when you need it.

The system also features electro-hydraulic power assisted steering (EHPAS), which adjusts control in accordance with vehicle speed and steering angle to realise precise, solid response for an outstanding feel to steering wheel operation. Control is set for more accurate response to vehicle speed, providing a lighter feeling at slower speeds and a firmer, confidence-inspiring feeling at higher speeds. Steering is direct and sharp at just 2.7 turns from lock to lock.

### **Braking system that instils confidence and provides optimum control**

Large diameter 320 mm ventilated disc brakes in the front and 280 mm solid discs in the rear combine with an eight- and nine-inch tandem brake booster and one-inch large diameter master cylinder to realise powerful and stable braking. ABS, EBA, EBD and DSC with Traction Control are all standard equipment on the Mazda3 MPS.

## **Reducing Vehicle Weight**

The New Generation Mazda3 follows in the footsteps of the second-generation Mazda2 and Mazda6, by being larger, better equipped, and more fuel efficient, and doesn't weigh an ounce more than necessary.

Mazda's weight management programme lowered the weight of as many components of the New Generation Mazda3 as possible. And the body shell employs increased amounts of high tensile and ultra-high-tensile steels that are light with superior crash resistance. As a result, the Australian version of the New Generation Mazda3's body-in-white is lighter than its predecessor, thanks to the following weight reduction measures:

- Increasing the percentage of the high-tensile steel (- 11 kg)
- Change to twin-beam construction for instrument panel (- 2.0 kg)
- Optimisation of rear suspension shape and elimination of centre stiffener (- 0.7 kg)
- Gram-by-gram weight reduction for all components and systems (- 1.3 kg)

## ***6. COMFORT, FUNCTION & EQUIPMENT***

### **The Driver's Environment**

**The Mazda3 has always provided comfort, space and practicality on the inside. The New Generation Mazda3 MPS continues this and more: there are new seats for better comfort on longer trips, plenty of small-item storage, an evolved Human-Machine Interface (HMI) and a host of new equipment. Furthermore, the New Generation Mazda3 MPS is quieter than ever before.**

To match its sporty nature and design, the New Generation Mazda3 MPS has a driver's environment with a strong sense of being one with the car. A *zone layout cockpit* design, with an evolved HMI was developed to achieve this.

After carefully studying the eyes of a driver looking at the road while driving, Mazda designers positioned information displays in zones where they can be seen with the least effort. For an intuitive feel while driving, they also placed all vehicle controls in a single narrow zone, stretching from the outside rim of the steering wheel to the gearshift knob.

The new car also has a highly evolved HMI system that makes it easy to use the car's systems from the driver's seat without taking your eyes off the road. A new top-mounted display is introduced that is positioned 100mm higher, just to the left of the steering wheel.

Under its single hood is a new dash-mounted Multi-Information Display (MID) that is operated by a handy MID selector switch on the steering wheel. Audio functions are operated by using the control panel buttons on the left side of the steering wheel, while other vehicle systems are controlled by new multi-functional dials on the centre panel.

## **New Multi Information Display (MID)**

A new MID is introduced with the New Generation Mazda3 MPS that shows all essential information in one location at the touch of a button on the steering wheel. This function now includes:

- 4.1-inch colour thin film transistor liquid crystal display (TFT-LCD)
- Integrated Satellite Navigation controlled through steering wheel mounted controls
- Bluetooth® hands-free compatibility
- New MID switch on the right of steering wheel allows switching between displays without taking your hands from the wheel
- Trip computer readout shows current fuel consumption, average fuel consumption, distance-to-empty, average vehicle speed and speed alert
- Audio system information
- Maintenance monitor

## **New Satellite Navigation System – Easy to Use and View**

New Generation Mazda3 MPS comes standard with a new satellite navigation system developed especially for the Mazda3. It uses a high-resolution 11cm (4.1-inch) colour screen mounted in the MID's upper section, where it can be seen easily, and is operated using control switches on the steering wheel. The system's navigational information comes from compact SD cards, and it was optimised using Mazda HMI techniques to be as easy to use as it is to view.

## **Premium Bose® Sound System**

The collaboration between Bose® and Mazda continues on the Mazda3 MPS Luxury with a Premium Bose® Audio System which provides a five-channel surround sound experience.

Bose Centerpoint® reliably translates two-channel stereo signals from CDs as they play into five channels using ten speakers in all, to place passengers in the centre of the music. Bose® digital amplifier technology delivers sharp sound, even at low volume, and distortion-free sound at high volume, and a noise compensation system called AudioPilot2® automatically compensates for road noise while driving.



### **Maximum comfort means maximum control**

Driving a Mazda3 has never been more comfortable with newly designed sports bucket seats designed to provide optimum support and comfort. A driver's seat with 8-way power adjustment with 3-position memory function makes it easy to find the perfect driving position and to take full advantage of the high position of the floor console's armrest. A new location of the gear shift knob, closer to the driver, allows shifting without having to lift the arm from the armrest. And the distance to put the shift hand on the steering wheel is now shorter because the gear shift lever is 60mm higher and slanted towards the driver.

Even the pedals were redesigned to make driving smoother and easier. The accelerator pedal now has 15mm more space to operate in and the brake pedal arm and the brake pedal pad are optimised. Together, this makes moving a normal to large-sized foot from the accelerator to the brake smooth and unimpeded.

### **Interactive Lighting plus Action Illumination**

The New Generation Mazda3 MPS has a new interior lighting system that creates a welcoming, friendly environment when entering the car. When the car is unlocked, an Illuminated Entry System activates, with a cockpit spotlight and room lamp fading in to illuminate the interior, making entry easy.

Onboard is an Action Illumination system that causes the audio and air-conditioning controls to react intuitively to touch. For instance, for the air-conditioning system, the temperature setting has lighting that shines red when raising the temperature and blue when lowering it.

### **Dual-Zone Climate Control Air-Conditioning and Heating**

The New Generation Mazda3 MPS now has dual-zone climate control air-conditioning and heating that is one of the segments quietest and most efficient. To achieve this, the heat exchanger was increased in size by 20 percent, compressor capacity raised from 120cc to 180cc, and airflow increased to 500m<sup>3</sup>/h.

## **Onboard Storage**

The New Generation Mazda3 MPS is made to match the Australian lifestyle, and that means plenty of clever storage spaces and cupholders. Beneath the centre sliding armrest is a large storage box with a capacity of 4.9 litres, the AUX-in jack and an additional power supply. Between this and the gear shift lever is a double cupholder and a storage box with lid (for a mobile phone, MP3 player, etc). To the right of the driver is a coin holder, a sunglass holder above the rear-view mirror and a new glove-box that holds up to 9.7 litres.

There are cupholders in each door pocket, front and back, a seatback pocket for holding maps or books, and two cupholders in the pop-down rear seat armrest. Behind the rear seats, 300 litres (268 with Bose system) of load capacity is offered. Of course, the rear seats can be folded down 60/40 to create a load area for large item transport.

## *7. REFINEMENT*

### **Lowering Noise, Vibration and Harshness (NVH)**

All engines in the New Generation Mazda3 line-up have been updated to be even more refined and quiet. The MPS's 2.3L DISI turbo is no exception.

Measures taken here include:

- Rubber stoppers added around each engine mount and making the mounts more rigid
- New front suspension hanger brackets
- Optimised tailpipe section of rear bumper wrapping reduces exhaust noise reaching the cabin

Chassis vibration (perceived as road noise) is also held to a minimum by strengthening vital components and joints. In fact, the New Generation Mazda3 has one of the segment's lowest road noise sound-pressure levels. This is achieved by:

- A new gearbox mount at the centre of front suspension to suppress vertical vibration of the crossmember
- Using thicker metal sheeting for suspension housing reinforcements
- Joining the rear suspension towers to the D-pillars
- Optimising rear seat belt anchors
- Optimising the shape of the instrument panel and making the steering column support member more rigid (for less vibration when idling and driving)
- Using a more rigid centre roof reinforcement
- Using new ribbing in the doors, double-layer, wrap-around door seals, outer door trim seals and rigid door sashes
- Using a thick dash panel upper plate
- Damping material under the rear seats and insulation material in the C/D-pillar framework

Wind noise has been kept as low as possible, resulting in wind noise performance of just 59dB (100 km/h with a 5 m/s crosswind). Measures taken here include:

- Adopting a radius shaped A-pillar that reduces vortexes and wind noise
- Employing a new side mirror design
- Lowering idle position for the windscreen wiper blades
- Adding dampening material to the cabin ceiling

## ***8. SAFETY - ACTIVE & PASSIVE***

### **Cutting Edge Technologies**

***Sustainable Zoom-Zoom*** not only focuses on producing technologies that have less of an impact on the environment, but also on bringing cutting-edge safety features to all Mazda products. The New Generation Mazda3 MPS reflects this focus with an outstanding active and passive safety package that includes advanced technologies.

Improving running, turning and stopping achieves stress-free driving performance that gives the driver predictable control of the vehicle, so every New Generation Mazda3 driver will remain in a safe frame of mind.

#### **Active Safety**

New Generation Mazda3 MPS comes with a state-of-the-art active safety portfolio which includes Dynamic Stability Control (DSC), Traction Control System (TCS), Anti-lock Braking System (ABS), Electronic Brake-force Distribution (EBD), and Emergency Brake Assist (EBA).

All these systems share a common goal; to ensure the driver has as much control over the vehicle in adverse conditions as cutting-edge technology can provide.

Combine this armoury of active safety features with the New Generation Mazda3's dynamic prowess and responsiveness, and the result is one of the safest small cars in Australia.

#### **Passive Safety**

The New Generation Mazda3 MPS is designed to provide high levels of crash resistance and occupant protection. Its body structure uses Mazda's triple-H architecture, with strong H-shaped reinforcements in the floor, side frames and roof. High and ultra-high strength steel was used throughout the body to ensure crash resistance; the reinforcements and inners are made of high-tensile steel at the A-pillar, the hinge pillar reinforcement and the side sills. The joint between the hinge pillars and A-pillar inner panels was lowered too, and spot welding used, to ensure that the joints do not open at the seams during a hefty impact.

New Generation Mazda3 has a front end structure that dissipates impact energy from the front through the entire vehicle, sparing the cabin as much as possible. A cross-car beam is also placed between the hinge pillars that helps dissipate energy before it reaches the cabin. A special undercarriage structure is designed to create a crushable zone at the front by causing the engine, transmission and suspension crossmember mounts to separate from the body structure in case of a major frontal impact.

The door impact beams are newly located with reinforcements added to their front sections, which helps reduce intrusion into the cabin during side impact. The area with energy-absorbing material used on the inside of the door and door trim are enlarged as well, and a door trim armrest with a crushable design is introduced to help reduce the chance of injury here. At the back the rear side frames are made of tailored blank high-tensile steel and have a thicker and straighter crossbeam. Its structure is designed to dissipate collision energy away from where the fuel tank is positioned.

#### **Active Front Head Restraints and Six Airbags**

On the inside, the New Generation Mazda3's safety package includes active front head restraints that protect the neck against whiplash along with front, side and curtain airbags. The curtain airbags are newly-developed and mounted to the top of the B-pillars. This reduces inflation time by 4/1000th of a second, provides a large protection area and excellent energy absorption.

Also standard are New Generation seatbelts with double pretensioners and digressive Load-Limiter Retractors (LLR), which are better at restricting body movement and at helping reduce shock to the passenger's chest. A crushable clutch and brake pedal, crushable pads below the heel area, a new shape for the steering wheel adjustment lever, and an energy-absorbing steering column are onboard to help prevent injury to the driver's lower legs and chest. Additionally, soft, energy-absorbing ribs are installed at each corner of the cabin.

Mazda continues to develop and improve its pedestrian safety features with the New Generation Mazda3. Its bonnet is made with an energy-absorbing structure at the cowl and fender bracket areas, to help reduce injury when struck. Energy-absorbing foam is used in the bumper beams and energy-absorbing plastic in the bumper's lower section, to reduce injury severity to the legs here as well.

# ***9. ENVIRONMENT***

## **Recyclability and Corporate Efficiency**

### **Mazda vehicles up to 95 percent recyclable**

***Sustainable Zoom-Zoom*** focuses just as heavily on the recyclability of every component of every New Generation Mazda3.

#### **Recycling, Eliminating Toxins and ISO 14001**

The vehicles of the current Mazda line-up are approximately 95 percent recyclable at the end of their life. Since 2005, Mazda has used a unique 'bumper to bumper recycling technology' that takes material from damaged bumpers and makes new bumpers out of it. The second-generation Mazda3 was designed using this, and has easily recyclable polypropylene (PP) in the front and rear bumpers, the instrument panel and cabin trim.

The New Generation Mazda3 MPS is also built with very few substances that pollute the environment when discarded. It uses no lead in the fuel tank, wire harness and in its electro-undercoating; and it has no hexavalent chromium or cadmium in any components.

The New Generation Mazda3 is also produced in an environmentally-friendly facility in Japan. Mazda has been an industry leader in this, and was ISO 14001 (environment management standard) certified over ten years ago – including the Hofu Plant, where the New Generation Mazda3 is assembled.

#### **Reduced fuel consumption and Euro Stage 4**

The New Generation Mazda3 MPS delivers surprisingly good environmental performance and fuel efficiency for a car offering this kind of power. Optimised aerodynamics helps reduce fuel consumption from 10.0L/100 km on the outgoing model to 9.9L/100 km on the New Generation Mazda3 MPS. First introduced on the New Generation Mazda3 is the world's first single-nanotechnology, fast-reacting catalytic converter, which delivers cleaner emissions and Euro Stage 4 compliance – while using fewer precious metals.

# *10. SPORTING HERITAGE*

## **Bred for Performance**

The Mazda3 MPS has a proven race pedigree, boasting three successful campaigns at the annual Targa Tasmania as a showroom spec racing car.

Internationally renowned as one of the world's most challenging tarmac endurance events, the annual five-day Targa Tasmania rally has long been a proving ground for Mazda's outstanding range of high-performance production cars.

**2009** – Mazda3 MPS (Brendan Reeves / Rhianon Smyth) – 3<sup>rd</sup> overall Showroom Class

Beaten only by rally-bred 4WD entrants, the Mazda3 MPS was the fastest 2WD showroom car in the event

**2008** – Mazda3 MPS (Alister McRae / Iain Stewart) – 1<sup>st</sup> overall 2WD Showroom Class

Beat the TRD Aurion of reigning ARC champion Simon Evans while equalling the time set by the fastest 4WD showroom car

**2007** – Mazda3 MPS (Rick Bates / Anthony McLoughlin) – 1<sup>st</sup> overall 2WD Showroom Class

In addition to scoring its first Targa win, the Mazda3 MPS also finished a stunning 10<sup>th</sup> position outright against all manner of auto exotica

# *11. BODY COLOURS*

## **Four Colour Choices**

Mazda Australia does not charge extra for Mica or Metallic paint colours, a saving of \$700 or more against some rivals.

Colour choices are: Black Mica, Celestial Blue Mica, Aluminium Metallic and Velocity Red Mica.



**Black  
Mica**



**Celestial Blue  
Mica**



**Aluminium  
Metallic**



**Velocity Red  
Mica**



## 12. SPECIFICATION

		MPS	MPS Luxury
Engine type		2.3 litre Direct Injection Spark Ignition (DISI) turbocharged in-line 4 cylinder 16 valve DOHC	
Engine capacity		2,261 cc	
Bore and stroke		87.5 mm x 94.0 mm	
Compression ratio		9.5:1	
Maximum power		190 kW @ 5,500 rpm	
Maximum torque		380 Nm @ 3,000 rpm	
Throttle control		Electronic (drive-by-wire)	
Fuel system		Electronic direct injection	
Fuel tank capacity		60 litres	
Recommended fuel		Premium unleaded (min. 95RON)	
Fuel consumption*1	combined	9.9 litres per 100km	
Manual transmission		6-speed	
Gear ratio	1st	3.214	
	2nd	1.913	
	3rd	1.366	
	4th	1.025	
	5th	0.948	
	6th	0.79	
	reverse	3.456	
	final drive	4.187 (1st-4th) 3.526 (5th-6th)	
<b>Dimensions</b>			
Ground clearance	laden	120 mm	
Overall height		1460 mm	
Overall length		4,505 mm	
Overall width		1,770 mm	
Track	front	1,535 mm	
	rear	1,520 mm	
Wheelbase		2,640 mm	
Cargo room	volume (VDA)	300 litres	268 litres
Kerb weight	man	1456 kg	1470 kg
Towing capacity*2	braked	900 kg	
	unbraked	550 kg	
<b>Performance</b>			
Top speed		250km/h	
0-100km/h		6.1secs	

## 13. EQUIPMENT

		MPS	MPS Luxury
<b>Chassis</b>			
Brake type	front	Ventilated disc	
	rear	Solid disc	
Brake diameter	front	320 mm	
	rear	280 mm	
Steering type		Electro hydraulic power assist steering	
Suspension	front	MacPherson strut	
	rear	Multi-link	
Turning circle	kerb to kerb	11.0 m	
Tyre size		225/40R18 88Y	
Wheel size		18 x 7.5 J	
Wheel type		Alloy	
Wheel type (spare)		Temporary	
<b>Exterior</b>			
Body kit comprising:	aero bumper (front)	X	X
	aero bumper (rear)	X	X
	rear roof spoiler (MPS unique)	X	X
	side skirts	X	X
	sports grille (MPS unique)	X	X
Door handles (body coloured)		X	X
Exhaust extension (chrome)		X	X
Fog-lamps (front)		X	X
Front and rear bumpers (body coloured)		X	X
Green tinted windscreen, side and rear windows		X	X
Headlamps (halogen)		X	-
Headlamps (bi-xenon) with Adaptive Front-lighting System (AFS)		-	X
Metallic/Mica paint		X	X
Power mirrors (body coloured)		X	X
Power windows		X	X
Roof rack mounting points		X	X
Tail-lamps (LED)		X	X

		MPS	MPS Luxury
<b>Interior</b>			
Air-conditioning (dual-zone climate control)		X	X
Blackout instrument cluster		X	X
Centre armrest console (sliding) with tray		X	X
Critical function warning lights/chimes		X	X
Cruise control		X	X
Cupholders		X	X
Digital clock		X	X
Door ajar warning light		X	X
Door pockets (front)		X	X
Drilled aluminium pedals and footrest		X	X
Driver's left footrest		X	X
Glove box (illuminated)		X	X
Headlamps auto on/off function		-	X
Illuminated entry system with delayed fade		X	X
Instrument panel light dimmer		X	X
Interior illumination:	cargo room lamp	X	X
	ignition key surround	X	X
	map reading spot lamps	X	X
	power window switch (driver)	X	X
Interior release for:	fuel filler door	X	X
Leather-wrapped:	gear shift knob	X	X
	steering wheel	X	X
Lights-left-on audible warning		X	X
Low fuel warning light		X	X
Multi information display with:	ambient temperature gauge	X	X
	Bluetooth® (hands-free compatible)*3	X	X
	maintenance monitor	X	X
	satellite navigation	X	X
	trip computer	X	X
Overhead sunglass storage box		X	X
Passenger assist grips (front and rear)		X	X
Rear-view mirror with auto dimming function		-	X
Scuff plates (stainless steel)		X	X

		MPS	MPS Luxury
<b>Interior Continued</b>			
Seat trim:	leather/cloth *4	X	X
Seats (front) with:	3-position memory function (driver)	X	X
	8-way power adjustment (driver)	X	X
	adjustable head restraints	X	X
	height adjustment (driver)	X	X
	lumbar adjustment (driver)	X	X
	rake and slide adjustment	X	X
	seat back pocket (passenger)	X	X
Seats (rear) with:	60/40 split fold backrest	X	X
	adjustable head restraints	X	X
	centre fold down armrest	X	X
Tachometer and electronic odometer/tripmeter		X	X
Tilt and telescopic adjustable steering wheel		X	X
Turbo boost gauge		X	X
Vanity mirrors (front) with illumination		X	X
Ventilation pollen filter		X	X
Window demister (rear)		X	X
Wipers (front) 2-speed with rain-sensing function		-	X
Wipers (front) 2-speed with variable intermittent function		X	-
Wiper (rear) with intermittent function		X	X
<b>Audio</b>			
AM/FM tuner		X	X
Auxiliary input (3.5mm MP3 player compatible) and 12 volt power outlet		X	X
Bluetooth® audio (MP3 player compatible)*3		X	X
CD player, in-dash 6-disc (MP3/WMA compatible)		X	X
Premium Bose® 242 watt amplifier and speakers (including subwoofer)		-	X
Speakers, number of		6	10
Steering wheel mounted audio controls		X	X

		MPS	MPS Luxury
<b>Safety</b>			
Active head restraints (front)		X	X
Airbags SRS:	front (driver and passenger)	X	X
	side (front)	X	X
	curtain (front and rear)	X	X
Anti-lock Braking System (ABS)		X	X
Child restraint anchor points		X	X
Collapsible steering column		X	X
Dynamic Stability Control (DSC) - switchable on/off		X	X
Electronic Brake-force Distribution (EBD)		X	X
Emergency Brake Assist (EBA)		X	X
Engine immobiliser		X	X
High mount stop lamp		X	X
Intrusion-minimising brake pedal		X	X
Intrusion-minimising clutch pedal		X	X
Left-hand-side convex (wide angle) exterior mirror		X	X
Limited-Slip Differential (LSD) torque-sensing		X	X
One touch (up and down) power window (driver)		X	X
Remote central locking (2 transmitters)		X	X
Seat-belt warning audible and visual (front)		X	X
Seat-belts (front) with pretensioners, load-limiters and height adjustable shoulder anchorages		X	X
Seat-belts 3-point lap-sash (all seats)		X	X
Side impact door beams		X	X
Smart keyless entry and push-button engine start		X	X
Traction Control System (TCS)		X	X
Triple H' safety construction with front and rear crumple zones		X	X
ANCAP Crash Rating		5 Stars	

\*1 Fuel consumption figures are based on ADR81/02 test results. They are useful in comparing the fuel consumption of different vehicles. They may not be the fuel consumption achieved in practice. This will depend on traffic and road conditions and how the vehicle is driven.

\*2 Subject to State or Territory regulations. \*3 The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Mazda Australia Pty Limited is under licence. Other trademarks and trade names are those of their respective owners.

\*4 Leather interior includes some Maztex material on selected high impact surfaces