



# Mazda Sassou

Concept Car



September 12, 2005

## SUMMARY:

### **Mazda Sassou – Mazda Alive**

Conceived and designed at Mazda's European R&D centre in Oberursel, near Frankfurt, Mazda Sassou is a lightweight, three-door hatchback that provides young, first car customers with a vehicle that makes urban driving fun, highly practical and economical. The exterior design evolves Zoom-Zoom design language to communicate the dynamic potential Mazda design is known for, and mixes this with lightness and surprising hidden features never seen on a Mazda concept before.

The Mazda Sassou design concept is based in part on the "Shoji" principle. Shoji screens are thin Japanese doors that partially hide what is behind them. Opening them for the first time can reveal something surprising, which is also true of a first encounter with Mazda Sassou. For instance, an ingenious use of translucent plastic partially hides the front and rear lamp graphics, which become fully visible once the car is unlocked, with light pulsing in the exterior light graphics in a way that make the car seem to come alive – Mazda Alive.

On the inside, Mazda Sassou features advanced functionality and comfort features. It uses a unique USB stick key, which activates all interior systems when inserted into a USB port in the centre console and causes a joystick to rise up from the centre console. Using this as interface, the driver can operate all important functions through a screen in the centre stack. When a function is selected, light circuits illuminate a path to the selected feature, enhancing the Mazda Alive aspect of the concept even further. The USB stick key also provides new levels of convenience, as it can be downloaded at home with music and favourite hot spots, which can then be uploaded onto the car's hard disc drive and navigation system. Mazda Sassou also has advanced comfort and room for either three or four occupants. It employs a rear seat morphing system that uses compressed air for seating one passenger in the middle of the back seat area, or two passengers.

**FULL TEXT:**

## **Mazda Sassou – Mazda Alive**

Taking centre stage at this year's Frankfurt Motor Show is Mazda's latest design concept, Mazda Sassou. Conceived and designed at Mazda's European Design Centre in Frankfurt, Germany, it is a lightweight, urban vehicle for young, first car customers that makes every day city driving fun, highly practical and economical. A sleek, three-door hatchback, it employs evolved Zoom-Zoom exterior design language with youthful lightness and surprising hidden features. These, combined with advanced interior systems using a USB stick key and an ingenious rear seat morphing system, hint at where Mazda might be heading with a future B-segment vehicle.



Mazda Sassou is the first design concept from a unique approach to show cars for Mazda Motor Corporation this year at three major motor shows – this year's IAA, the Tokyo Motor Show in October and the 2006 North American International Automobile Show next January.

“This is the first of a number of concept cars to be designed consecutively at our regional design centres, namely: Frankfurt (Germany), Yokohama (Japan) and Irvine (California),” said Moray Callum, Executive Officer in charge of Design at Mazda Motor Corporation. “However, despite the design environment in which it may be conceived, you will intuitively identify that this is a car from Mazda. Its characteristics being uniquely Mazda; reflecting the essence of Zoom-Zoom, something we have communicated throughout the world”.

“Mazda Sassou was designed to appeal to young, first car-buyers” said Peter Birtwhistle, Chief Designer at Mazda Motor Europe GmbH. “It is a look over the Mazda horizon and what it proposes is new and exciting. It is the result of asking ourselves what stimulates young Europeans today. We feel that they would ideally prefer a vehicle that supports and expresses their lifestyle and at the same time would meet the changing demands of the growing European B-segment. Sassou, then, not only evolves Mazda small car design in a lightweight, fun-looking B-car package, it also represents a new way to express some traditional automotive attributes and provides a first Zoom-Zoom driving experience for young buyers.”

The name “Sassou” is a Japanese term that was chosen because it means having a positive state of mind, of looking to the future with optimism. On the horizon, then, is something positive and exciting. Mazda Sassou is not only an advanced evolution of Mazda’s Zoom-Zoom design language, but is a symbol of the forward-thinking optimism of the entire organization as communicated by its recently announced Mazda Momentum business plan.

## **Exterior Design – Mazda Alive**

“This was a great project to realize,” said Luca Zollino, Mazda Sassou lead designer who also contributed to the Mazda6 MPS concept exterior design. “Mazda’s new-generation cars are exciting to look at with lots of visual appeal. Having to keep our ideas within the brand’s parameters did not hold us back when we started evolving it. On the contrary: having such a base gave us the right hints for putting together existing and new strong design elements to emphasize Mazda’s design language and implement the brand identity.”

The Mazda Sassou design concept is based in part on the “Shoji” principle. Shoji screens are thin Japanese doors made of rice-paper that partially hide what is behind them. Opening them for the first time can

reveal something surprising. This is also true of a first encounter with Mazda Sassou. "The Shoji-like attributes of our design hide and then suddenly reveal various things with an illumination system that makes the car seem to spring to life," said Masanori Minamisawa, Mazda Assistant Chief Designer now based at Mazda's Design Centre Frankfurt. "We call it Mazda Alive because the lighting cascades and pulses like its being circulated by heartbeats just below the surface of the car."

Mazda's latest design concept is an advanced interpretation of Mazda stylishness that visually communicates dynamic potential so typical of the brand, yet mixes this with a youthful lightness and surprising hidden features never seen on a Mazda concept before. The front of the vehicle is an evolution of the Mazda RX-8 with a large five-point grille and fender treatment. The grille itself is conceived to be an adjustable cover raised out from the air intake on arms. This grille cover could move in and out electronically – adjusted according to vehicle speed, outside temperature and cooling system temperature – to then optimize airflow to match cooling system requirements. It would also contribute to a further optimization of the aerodynamics of the vehicle.



Surrounding the grille is a nose design that is strong and sporty looking with a large Mazda logo framed by pointed, chevron shaped headlight graphics. Both the headlights and the rear lamp graphics are integrated into the surrounding body panels beneath translucent plastic treated in a

way to match the body colour, which partially hides them when Mazda Sassou is parked. They spring to life when the car is unlocked using indirect illumination of the reflector, and function as normal headlamps and rear lamps when activated using direct LED lighting. The front and rear turn indicators also use direct LED lighting and, when activated, make the design of the lamp graphics even more striking. These “hidden lamps” are one of the concept’s most unique features and could indicate a new trend in exterior lighting design in the future.

The silhouette is an evolution of Mazda’s new- generation panelling with three distinct body lines. One runs over the front wheel well, and a second starts at the back wheel well and moves slightly downwards towards the front wheel well, resulting in a futuristic look at shoulder line level. Added to this are a slightly concave door panel shape and a powerful side sill framed by 18-inch alloy wheels that make the Mazda Sassou look light and sporty when seen from the side. Mazda Sassou also has frame-less side windows in light grey-tinted glass. The B-pillar is not extended up from the side structure and there is no frame between the front and back windows. When open, they create a single daylight opening that enhances the overall sense of lightness.



Above this, is a dynamic and low 1,370 mm roofline, with the roof itself as an extension of the front windshield made of glass in the same light grey tint as the side windows. The glass surface seems to sweep in a single piece up over the top of the concept becoming narrower as it reaches the back of the car. Using glass for the roof instead of metal enhances Mazda Sassou’s light, agile looking exterior, and allows for consistent exterior lighting in the cabin. This glass roof is framed by wedge-shaped panelling over the side windows. Combined with a C-pillar design that angles rearwards into the boot area, they add even more lightness and dynamic movement.

"If you look closely, you will see that the side window frame, the rear window and the boot design are variations on the Mazda five-point grille shape," said Zollino. "These forms give the Mazda Sassou even more lightness and a futuristic edge. Every major surface in the body begins at the five-point grille in the front. Giving the boot a five-point shape creates visual completeness so that you seem to end, design-wise, where you began."

All these exterior design features result in a sleek looking B-car concept that hints at Mazda Sassou's fun to drive nature. The design employs the latest in aerodynamic techniques to enhance the overall impression of Mazda Sassou's agile lightness. The door handles are part of the side panels and rotate outwards when unlocked, then back into the body panel when the door is closed. The side mirrors are designed to offer as little wind resistance as possible and Mazda Sassou's underbody is designed to reduce drag and combined with a rear diffuser, enhancing the sleek and sporty look even further.

## **Interior – Mazda Insightful Packaging Redefined**

The Shoji principle is carried over into Mazda Sassou's interior, an experience that begins when opening the door. The concept's interior systems are conceived to be used with a universal serial bus (USB) stick key that functions in place of a traditional key and includes a remote central locking function. After unlocking, the concept springs to life just beneath the surface of the exterior with light pulsing in the front and rear lamps graphics and illuminating the door handles. Opening the door reveals an illuminated USB port in the centre console glowing in a warm, red light. Inserted here, the USB stick key controls all interior systems and causes a joy-stick control lever to rise up. The system then comes alive, all systems are activated and the vehicle can be started using an ignition button next to the driver metre cluster.

"The USB stick key idea is the result of our targeting younger drivers," said Mickael Loyer, Mazda Interior Designer, based in Frankfurt. "We conceive the Sassou as having its own hard disc drive, security code recognition and Mazda software for owners, including a navigation programme that could be downloaded onto the vehicle's USB stick key. The owner could download the music he wants to listen to that day, directions to his favourite pub or beach hang out, using the USB stick key on his computer at home. When he inserts it into the Mazda Sassou interface slot, it would then automatically download onto the concept's hard drive."

The heart of the Mazda Sassou interior concept is an oval light at the centre of the lower instrument panel. Above this is a centre control screen that visualises vehicle information. The interface with the driver is intuitive, with the joystick used to navigate into the menus and to select main functions. When a function is selected, fluid light circuits illuminate a path to the selected feature; say the air vents, in either the instrument panel or the door trim.



The interior itself has two bucket seats in the front connected by an integrated armrest over the centre console and a bucket-like rear seating area for up to two passengers. Colours are monotone, blue-green and light grey, made of soft high quality materials with textural qualities chosen to reflect the illumination system in a way that enhances the sense of the interior as being alive.



“By giving the seats a lighter colour than the floor area, we wanted to achieve a floating effect,” said Loyer. “The seats seem to hover in the centre of the car and create a tangible sense of lightness. This colour scheme also enhances the interactive illumination system and makes it even more effective, even more Mazda Alive.”

## **Interior Functionality – Rear Seat Morphing**

Mazda Sassou evolves the Mazda tradition of providing insightful interior functionality and practicality. An electric front seat fold system makes it easy to get into and out of the back seats through the front doors. Pressing one or two buttons located on the driver’s seatback causes either one or both front seats to slide forward and their seatbacks to tip, allowing easy access to the rear seat area. The seats then return to their original positions by pressing the buttons again.

Mazda Sassou also employs unique “morphing” rear seat functionality. This uses compressed air to allow the vehicle to be formatted for a three or four-seat configuration. By selecting 1 or 2 on a panel at the back of the centre console, the rear seat area can be converted on demand. For one rear passenger, compressed air fills the sides of the rear seating area to form a single seat in the middle. For two passengers, air fills the

seatback in the middle, forming two seats on each side. The roomy centre rear seating position provides the rear passenger with a unique view and makes Mazda Sassou even more fun to be in.

Mazda Sassou can easily be converted to a practical two-seater by folding the rear seats into the floor, which forms a flat load floor that is 1,400 mm long, 1,200 mm wide with approximately 1,360 litres of load volume (floor 22 to ceiling). Combined with the rear hatch opening, the Mazda Sassou is able to transport larger items without having to remove any seats.



“The Mazda Sassou concept proposes a possible future B-car meant for urban singles who commute on a daily basis,” said Peter Birtwhistle. “The exterior looks lightweight and aerodynamic; the interior is flexible, high-tech and interactive. The USB stick key / hard disk drive idea would allow you to configure its systems according to daily needs in a really cool and futuristic way.”

## Powertrain and Environment – Targeting Low Emissions (Flexible, Fun and Friendly)

The Mazda Sassou design concept has been developed to support either a petrol or diesel powertrain of relatively small displacement. For this concept, knowing that the target customer is likely to choose petrol over diesel and would be most interested in a high-performance engine that is also environmentally friendly, Mazda’s engineers have envisioned an all-new, small displacement, three-cylinder engine. Further, the engineers believe the Sassou concept should benefit from Mazda’s all-new direct-injection, spark-ignition (DISI) technology.

With that in mind, Mazda’s engineers believe a turbocharged, three-cylinder, 1.0-litre DISI MZR powertrain would ideally match the spirited and sporty nature of the Sassou concept. Flexibility, smooth acceleration and plenty of torque are hallmarks of Mazda’s DISI turbo engines. And when combined with the Sassou’s advanced aerodynamic shape and small, lightweight body, a three-cylinder, 1.0-litre DISI turbo with idle-stop technology could conceivably contribute to a further reduction in fuel consumption and CO<sub>2</sub> as well as achieve class-leading driving dynamics that are characteristic of the Mazda brand and its expression of Zoom-Zoom. The powertrain would be finished off with a dry-type twin-clutch 6-speed powershift transmission that is shifted using paddles on the steering wheel, making it both fun and easy to drive in city traffic.

The Sassou’s suspension features MacPherson struts in the front and a torsion beam rear suspension system, along with Pilot Exalto2 Michelin tires that achieve both responsive handling and improved fuel consumption.

### Mazda Sassou Design Concept Specifications

Dimensions	overall length	3890 mm
	overall width	1740 mm
	overall height	1370 mm
	wheelbase	2490 mm
	seating capacity	4
Engine	MZR I-3 1.0L DISI turbo with Mazda Idle-Stop System	
Transmission	Dry-type Twin-clutch 6-speed Powershift Transmission	
Tires	225/40 R18 Michelin Pilot Exalto2	

## **About Mazda Canada Inc.**

Mazda Canada Inc. is responsible for the sales and marketing, customer service and parts support of Mazda vehicles in Canada. Headquartered in Richmond Hill, Ontario, Mazda Canada has approximately 160 dealerships nationwide. For additional information visit Mazda Canada's website at [www.mazda.ca](http://www.mazda.ca) or Mazda Canada's Media website at: [www.media.mazda.ca](http://www.media.mazda.ca).

Contact: Gregory Young, Director, Corporate Public Relations,  
(905) 787-7094; [gyoung@mazda.ca](mailto:gyoung@mazda.ca)