

Parts and Accessories

Experience the full spectrum of automaking in the parts area



Booths from manufacturers of parts and accessories can be found in many different locations throughout the 40th Tokyo Motor Show 2007 at Makuhari Messe, including the North Hall, Tire and Audio Hall and on into the West Hall and even sections of the Center and East halls.

A single vehicle may have tens of thousands of parts, and while the parts manufacturers do not produce the finished automobile, it is their original, creative manufacturing that stands behind vehicles, their technology that creates quality products, and their development capacity that continues to evolve the automobile. Indeed, powerful parts companies are crucial to the manufacturing of competitive finished vehicles.

It is the sheer number of current parts (the products of this manufacturing capacity) and the innovative concepts for both

near- and far-future technologies that bring a steady stream of visitors to the parts booths, not only professionals in the automotive industry, but also young people seeking careers in automaking and members of the general public who are interested in automotive technology.

Exhibitors do not just display their wares. Many of them have simulators to provide a virtual experience of future technologies and moving models that show at a glance how complex structures work. Children and adults alike can be seen avidly viewing exhibits and learning more about the systems that go into automobiles and what they will look like in the future. This scene is what distinguishes the Tokyo Motor Show and its emphasis on letting visitors literally come in contact with cars.

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Product Enhancement Technologies



Tachi-S, Kasai Kogyo and Ichikoh Industries collaborate on interior concepts

Competitive carmaking involves much more than just the basics of engine and chassis technology. It's also important that the interior and exterior be attractive, that the interior be quiet and that there be items to make the drive more enjoyable. Throughout the show you can see technologies that help to enhance product appeal and performance.

In interiors, Toyota Boshoku has a reference exhibit of bio fabric seats that are high-quality as well as easy on the environment. Tachi-S and Kasai Kogyo, who entered into an alliance last year, team up with lighting powerhouse Ichikoh Industries to propose "relaxing, healing interior concepts." Kawashima Selkon Textiles' "Banex" is a single piece of cloth that makes it possible to design body pressure distribution. Meters also receive some quality enhancements. Siemens VDO exhibits movable instrument clusters, while Futaba shows how Field Emission Displays (FED) can be used to create virtual displays.

The selection and quality of audio components is better than ever before. BOSE demonstrates the model it created specifically for Ferrari on a real "Ferrari 612 Scaglietti." Other premium sound systems are displayed and demonstrated by companies like Alpine Electronics and Sonic-Design. One of the reference exhibits in the Matsushita Electric Industrial booth is an ultra-wide display screen for the rear seats, a new proposal in onboard entertainment.

Door mirrors are evolvina too

In technology to improve comfort, Toyo Tire & Rubber has attracted wide interest among automakers for its electromagnetic actuator that significantly reduces interior noise. The unit is attached to the top of the suspension and generates reverse-phase noise to cancel out the road noise that is normally transmitted the body. Environmental components are found here too, for example, Namba Press Works' recycled acoustic pads.

Moving to the exterior, the light manufacturers shine with next-generation technologies. Stanley Electric has an LED concept mini-model to show what the next generation of lighting could look like. Koito Manufacturing displays a design-oriented next-generation headlamp unit in which the lamp colors change moment to moment; **Valeo** has a lighting unit that can be adjusted freely without switching bulbs.

To increase quality and performance alike, **Topy Industries** combines aluminum and resin to create more durable hybrid aluminum wheels. Meanwhile, Murakami displays door mirrors with a wide range of built-in functions like down lamps, side cameras and automatic anti-glare.



Siemens VDO's pop-up display



Topy Industries' hybrid aluminum wheels



Kawashima Selkon Textiles' Banex seat



All you need for a guiet car



The changing colors of Koito Manufacturing's next-generation lamps



Experience real BOSE sound in a real Ferrari

Future technologies ΙT and







Data links mobile phones and car navigation systems

Toyoda Gosei's visible light communication

Information technology (IT) is another one of the core technologies in the automobiles of the future. IT is already at work in many areas of the vehicle, controlling engine, suspension and body performance, keeping track of locations and map information on navigation systems, and also providing entertainment. The direction for the future is towards "ITS Integrated Control" that networks the car and the road for optimum control fine-tuned to specific circumstances.

how it uses IT to connect cars and homes

The Tokyo Motor Show displays many aspects of the next generation in these technologies' evolution. Denso tries to light the road more safely with its next-generation AFS headlamp system that is connected to the car navigation location information and road information. Bosch has the latest in electronic stability programs (ESP) that "provide more active control by adding location information," according to a company representative.

Zenrin displays a reference exhibit of its new "Global



Hitachi's finger vein authentication system

Information System" (GIS) that will provide a basis for ITS Integrated Control by enhancing two-dimensional map information with information on road topography, sidewalls, and even the lines and signs along the way. Toyoda Gosei proposes next-generation visible light communications that use light rather than radio waves for communication between the road and the vehicle and between neighboring vehicles.

The electronics and car audio companies bring the new information systems that will be the backbone for IT-driven technology advances. Matsushita Electric Industrial has a camera intercom that connects the car and home so that you can respond to visitors and even prevent robberies. Mitsubishi Electric takes the Dedicated Short Range Communication (DSRC) technology used in ETC to create a menu of next-generation services. **Fujitsu Ten** impresses visitors with demonstrations of a system that allows the user to search for shop and parking information on their mobile phone and transmit it at the touch of a button to their car

navigation system for registration as a destination.

Next-generation manufacturing technologies were also on display. Denso shows its new technology for manufacturing the microprisms that will help to reduce costs for radar sensors. Tokai Rika attracted attention for its next-generation interfaces to take the place of the standard steering wheel, for example, the lever system that is used in Toyota's "i-REAL." Clarion impressed with its noncontact interface that allows drivers to operate car navigation systems without using their hands.



Fuel cell vehicle demonstrations

OPICS **Clean Energy Vehicle Classes for Children and Parents** "How much do fuel cell vehicles cost?"

As in the previous show (2005), the Tokyo Motor Show has held "Clean Energy Vehicle Classes for Children and Parents." The classes are open to elementary school children and took place in the International Conference Hall. Eligibility was

limited to elementary schools in Chiba City for classes held between October 29 and November 1. On November 10 and 11, the Asahi Shimbun and Asahi School News invited approximately 900 children from elementary schools who had applied in advance. The classes took about 40 minutes. During the first half, the young "teachers" explained some of the issues with current vehicles and what kinds of environment-friendly clean energy vehicles are available. For the second half, each table received a hand-powered generator and was asked to generate their own electricity to help them better understand what clean energy was all about.

In the question-and-answer period, there were several very sharp questions: "Can you create energy from sea water?" "How much do fuel cell vehicles cost?"



Experimenting with hand-powered generators



Tokyo Motor Show Symposium 2007 Held November 10 The 2nd ITS Promotion Forum "Beautiful Japan" Enjoy Smart and Comfortable Driving!

Coordinator: Ms. Hiroko Kiba, Newcaster and Professor of Chiba University Panelists: Mr. Takaaki Enoki, Actor

- Mr. Toshiyuki Nagashima, Actor
- Mr. Eiiichi Sudo, Photographer
- Mr. Hirokazu Koyama, Director, Central Nippon Expressway Co., Ltd.
- Mr. Takehiko Morozumi, Freelance Automotive Journalist
- * Messrs. Morozumi and Koyama participated from the second half.

During the first half, Mr. Enomoto commented, "I have more fun on trips where I just wander and interact with the local people than on trips where I have hotel reservations and have to follow a schedule." Mr. Nagashima talked about taking his children ricefarming because he "wanted to share with them the nature that I grew up experiencing firsthand." Mr. Sudo used slides to show beautiful natural vistas from his book *One Hundred Roadways* in Japan, including Hachimantai Aspite Line and Akiyoshidai Skyline. This was followed by a short video made by Mr. Enomoto on his visits to Japan's World Heritages and a discussion of the theme for the first half: "rediscovering beautiful Japan."

During the second half, Messrs. Enomoto and Nagashima commented that they had heard of ETC but not of ITS (intelligent transportation systems). Mr. Morozumi explained that it was a

SPECIAL Rain or no, the Chiba Prefectural Motorcycle Team struts its stuff

The Traffic Unit of the Chiba Prefectural Police works day and night to manage traffic around the Tokyo Motor Show and Makuhari Messe, and also to educate the public on traffic safety. On November 10, Lifestyle Park in the West Rest Zone was the scene of a demonstration by four of the motor-



The highly-skilled ladies' bike team



The four motorcycles display a series of difficult maneuvers

from the male "White Ladies." On signal from the leader, the four motorcycles demonstrated a series of difficult techniques, including starting, turning and stopping within a radius of 3 m as well as negotiating narrow roads and turning figure eights.

In spite of the rain, a large crowd of visitors came out, umbrellas in hand, to watch the breathtaking precision of the troopers.



broad concept on how to manage the entire flow of transportation. Mr. Koyama demonstrated how to get the most out of ETC systems by creating a two-day, one-night driving course that follows the history of *Furin Kazan*, a TV drama that Mr. Nagashima was acting in. By skillfully using the "100 km search site" and time-based discounts, it is possible to cut the normal 4,400 yen expressway charge from Tokyo in half to 2,200 yen.

Mr. Morozumi discussed the possibility for enhancing travel information in Japan by expanding the number of "smart interchanges," comparing them to the famous Michelin Guide. The conversation then turned to other aspects of the second-half theme of "smart driving" like the ability to improve fuel economy by 10% just by watching how you hit the accelerator. Ms. Kiba closed the symposium by encouraging visitors to "take another look at the beauty of Japan" and to "practice eco-driving."

"More parking space for motorcycles!" Petition circulated during the show

The Japan Automobile Manufacturers Association and Nippon Motorcycle Association were in the Central Rest Zone during the show circulating a petition calling for more and better parking



spaces around train stations in urban areas. Japan began cracking down on parking violations in June and motorcycle drivers in particular have been complaining that there is no place to park. The petition calls on central and local government bodies to take immediate steps to rectify the situation. The organizations will also be distributing specific policy proposals to governments, including budget requests. Make your signature count.

