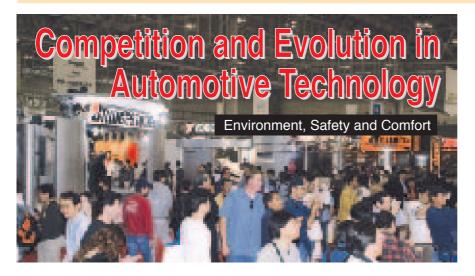


The Tokyo Motor Show has been favored with relatively warm weather throughout, but hints of fall can be seen in the trees lining the Makuhari Messe roads and in the gardens of Makuhari Seaside Park where the Clean Energy Vehicle Test Rides take place. Autumn is steadily deepening. Coming into the end of the show, businessmen in neckties again predominate, and many of them can be seen taking notes by the booths. There are also large numbers of photographers scurrying around the show, apparently trying to make sure they have recorded everything. Today marks the 37th Tokyo Motor Show's final day.





Parts are key to the evolution of automotive technology. Like the last (35th) show, this year sees a strong focus on environment, safety and comfort in the exhibits, as companies compete in their respective fields through the advancement of their technologies.

4 Governments, 200 Companies

This year's show features parts exhibits from 4 governments and 200 domestic and foreign companies. The content is every bit as high as the numbers; 49 parts are making their world premieres at the show, and 26 are making their Japan premieres. The parts section has developed into a lively "trade fair" with the exhibitors competing on advanced technology.

Most of the parts exhibits are in the West and North halls. Car audio and accessory exhibits are scattered among the other halls as well.

Booths in the West Hall include Bridgestone, Yokohama Rubber, Sumitomo Rubber and the other tire manufacturers. Also here are the four governments: United States, Canada, Germany and Sweden. Other parts companies in the West Hall include: Topy, a wheel manufacturer; Araco, who utilizes the new natural material "Kenaf" in its auto parts and is garnering the attention of visitors; and Namba Press Works, which manufactures seats and metal molds.

The West Hall contains Bridgestone and other tire companies as well as foreign government booths. Seen below are visitors trying out Araco's futuristic seats (top) and the German government exhibit (bottom).







The central aisle of the North Hall.

Next Generation of In-Wheel Motors

Bridgestone displays the "Ferrari F2003-GA" that won the 2003 F-1 Championships using the company's tires. It also includes a variety of racing and road tires in its exhibit. Among new technologies, Bridgestone gives visitors a glimpse of its "in-wheel motor drive system." The system incorporates the motor drive into the wheel and represents a breakthrough for fuel cells and other promising but challenging technologies. At the press briefing, President Shigeo Watanabe announced

At the press briefing, President Shigeo Watanabe announced that the company would "continue to exhibit actively at overseas motor shows," indicating his intention to strengthen the Bridgestone brand image.

There is a lot to see in the West Hall government exhibits too. Canada and Germany have strong presentations. Canada boasts a large parts industry that supplies North American auto manufacturers, and Quebec and other provinces are looking to expand their sales channels in Japan. The German government (VDA) has a reputation for unique booth designs at the Tokyo Motor Show and it does not disappoint this year. The exhibit includes ZF and many other powerhouses in its

enormous parts industry. USA and Sweden concentrate on technology, looking for business opportunities in the gigantic Japanese and Asian markets.

Environment-Oriented Development

Meanwhile, over in the North Hall, another group of parts companies shows off their cutting edge technologies. Included here are Akebono Brake, NGK Spark Plug and a joint exhibit by the Japan Autoparts Industries Association (JAPIA). The Aisin group also has a large booth on the central aisle of the North Hall with displays from six of its members: Aisin Seiki, Aisin Takaoka, Aisin Chemical, Aisin AW, Aisin AI and Advics. As before, it uses a wire frame car to show visitors exactly which parts it manufactures. The many advanced technologies in the Aisin exhibit include the six speed automatic transmission, automated manual transmission (automatic clutch) and intelligent parking assistance system. Akihiro Wada, the Chairman of Aisin Seiki, says, "We will be placing more emphasis on environment technology in the future," indicating new directions for the group's development team.



The North Hall contains engine parts, electrical parts, body and interior parts, and drive, transmission, steering, suspension, brake parts.

Trying Out the "Parking Assist System"

The focus on environment, safety and comfort can be seen in booths such as Denso and Toyota Industries, both of which are located near the motorcycles exhibit, and also in the displays of Bosch, the Hitachi group and many others. Denso is known for its diesel common rail systems, which it displays along with a new diesel after-treatment system that meets the diesel emission regulations issued by the Tokyo Metropolitan Government. It shows a number of safety innovations as well. Koichi Fukaya, who took over as president in June, states clearly that "there can be no compromises when it comes to safety." Toyota Industries uses miniature cars to demonstrate its "Hi PAS" parking assist system.

Bosch focuses its exhibit on the "Electronic Stability Program" (ESP) that is becoming common in Europe. It also displays a new injection system and several other technologies. The Hitachi group includes many autoparts companies, such as Tokico and Hitachi Metals. The display features systems for hybrid vehicles, an in-vehicle information device that improves convenience with advanced telematics, magnets that improve the performance of electric motors, other new materials, and aluminum suspension parts that reduce vehicle



The Aisin group's familiar wire frame car.

weights.

Component technology companies are every bit as concerned with environmental performance as assembly makers. Mahle displays its high-performance pistons, Art Metal Manufacturing its pistons, LuK its new CVT belts, and INA its needle bearings.

Technology Exhibits Boost Product Appeal

Also prominent this year are technology exhibits designed to boost the product appeal of automobiles. New metering technologies can be seen from two of the main players in this field, CalsonicKansei and Siemens VDO Automotive.

CalsonicKansei addresses the problem of the "ubiquitous society" in which people are constantly bombarded with information. Its meters select which information to display to drivers according to the circumstances, and even allow drivers to change the display distance according to how important the information is.

Many of the parts booths in the other halls craft attractive presentations and events to appeal to the general public in addition to the automotive industry. People interested in automobile technology agree that they "are really interesting."



Using miniature cars to experience the "Hi PAS" parking assist system (Toyota Industries).

OPICS

Power and Pathos from the Tsugaru Shamisen



As if out of nowhere, the Tokyo Motor Show was suddenly filled with the sound of the Tsugaru shamisen. The performance was by Hiroshi Muramatsu, a local Chiba musician, Kenichi Nagamine, one of Japan's best Tsugaru shamisen players from Aomori, and Tatsumi Miyazaki, a Jomon drum maker and performer, also of Aomori.

The trio performed in the Central Rest Zone, with a large circle of listeners quickly enveloping the performers. Muramatsu wanted the audience to experience "the power of the Tsugaru shamisen;" Nagamine, who considers the instrument to be very plaintive, wanted them to hear its "pathos;" Miyazaki brought the unique sound of Japanese drums to the performance.

The session began with Muramatsu playing "Boso Jongara," followed by Nagamine's rendition of "Tsugaru no Kamari." Then the three combined forces for the "Oku-Tsugaru Suite." The trio also performed on the special stage at Festival Park to rousing applause. Styling their show as "a collaboration between the Tsugaru shamisen and the Jomon drum," the group's aim was to boost the image of the Chiba products and promote the prefecture as a tourist destination.

OPICS

5,000-6,000 Information Packs Distributed Over the Weekend



JAMA, the Tokyo Motor Show organizer, has its booth near the Central Entrance Hall. It offers fun computer-based quizzes and a wealth of informational materials. In front of the booth, staff members pass out clear filles filled with automobile tax information and explanations of air bag technology. The files go fast. JAMA reports that it passed out an incredible volume of 5,000 to 6,000 sets over the weekend.

Inside the booth you will also find a small model of the "Wonder Wheel" pavilion that JAMA plans to erect at Expo Aichi, which begins in March 2005. This unique design is already attracting attention.

Environment-friendly Living

Yasuhiro Daisho

(Dept. of Mechanical Engineering, Waseda University)

◆Theme

New Technology and Use of Automobiles to Reduce Global Warming

Speakers

Koji Yamaguchi (NEC Corporation)

Mayuko Ueda (Tokyo FM)

Tomoyuki Sugiyama (Honda R&D Co., Ltd.)

Yasushi Kur<mark>osasa (Shogakukan</mark> Inc.)

Yasuhiro Shimizu

(Climate Change Policy Division, Global Environment Bureau, Ministry of the Environment)

The keynote speaker, Professor Yasuhiro Daisho, noted that reducing CO2 emissions would require changes in consumer perspectives as well as new technologies. "We must reorient ourselves towards eco-driving," he said. Yamaguchi picked up on this theme, saying that "IT technology could be used to analyze idling, revving and other aspects of fuel consumption, which would help reduce CO2 emissions and improve the

(November 4)



economy." Sugiyama spoke from the perspective of manufacturers, viewing fuel cells as the key to reducing CO2 emissions and saying, "It is no longer a dream to think that fuel cells will power homes as well as cars in the future." This statement resonated with the audience. Kurosasa, formerly the editor of "BE-PAL" magazine, said, "At the time, we focused on the exact opposite of eco-driving in the magazine, but the direction for the future is definitely the 'slow life.'" Ueda related her experiences as an



Yasuhiro Daisho

announcer for the "Ecology Music Campaign" program in which she talked with listeners about ecology issues. Finally, Shimizu, who drives a hybrid car, expressed hope that "it will become the norm to drive ecological cars." He encouraged people to access the Ministry of the Environment's "Wa-no-Kurashi" website, which discusses many of these issues.

The New Age of ITS Cars

Special Address

Kazuyoshi Hoshino (Hoshino Impul Co., Ltd.)

Panel Discussion

Chair

Waichi Sekiguchi (Business News Department, Editorial Bureau, Nihon Keizai Shimbun, Inc.)

Panelists

Kazuyoshi Hoshino (Hoshino Impul Co., Ltd.)

Kohei Koide (ITS Japan)

Takao Asami (IT Engineering Department, Electronics Engineering Division, Nissan Motor Co., Ltd.)

Yoshimi Ogawa (Index Corporation)

The aim of this symposium was to publicize ITS (Intelligent Transport Systems) technology and provide the audience with a greater understanding of what it can do. Hoshino gave a special address in which he discussed his 40 years of experience as a race car driver and manager of a racing team. "Racing has contributed to the advancement of automotive technology. In today's computer age, we want to further enhance racing and help develop better cars," he said.

(November 4)



Koide reviewed the status and outlook for ITS in Japan and highlighted eight tours that will be set up as part of the "11th World Congress on ITS" to be held in Nagova next October. The courses will show the kinds of communities the "ITS Smart Town" plan is trying to achieve. Asami explained that "safe, comfortable transportation is only possible when vehicles, roads and traffic management are integrated," and he went on to discuss the technology approaches to doing that. Ogawa is known for developing innovative



Kazuvoshi Hoshino

mobile telephone content. "The next generation of mobile phones will see lower transmission costs and wider networks that will enable us to enhance automobile services," he said. A discussion among the panelists and the chair, Sekiguchi, then ensued.

Today's EVENTS

Symposiums

16:30~18:30 The Motor Sports Lifestyle

<Motor Sports Award Presentation>

Festival Park (West Rest Zone)

★ Bay FM

11:15~11:45 Festival Park (West Rest Zone)

★ Fiesta Mariscos

 $13:00\sim13:30$ $15:00\sim15:30$ Festival Park (West Rest Zone)

★ Clean Energy Vehicle Test Rides

10:30~16:30 Clean Energy Vehicle Test-Rides

(Makuhari Seaside Park)

Guest-

"The events were great, but need more publicity"

We found Makiko Sawada (Kemigawa, Chiba) avidly videotaping her children as they did the "safety calisthenics" for the "Traffic Moral Saver Anzenger" show. "The children had a great time." she told us. She has been to the Tokyo Motor Show several times, but said, "This is the first time I've experienced something like this. I think it's really wonderful."

She did have some requests, however: "I didn't know anything about this until I came to the event. I would have liked to try some paella too. I think the show could do a better job of publicizing the events to local housewives."



Visitors for November 4 95,900

Attendance to date 1,339,300

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