

The 38th

TOKYO MOTOR SHOW

Commercial & Barrier-free Vehicles

2004



News Vol.4 November 6, 2004



The warm autumn days continue. As it reached the midway point on the 5th, the show had a measure of calm and order while again attracting a wide range and variety of visitors. Thanks to the wider central passageway, the crowds flowed through smoothly, and there has been a notable increase in the number of visitors in wheelchairs this year. In the South Rest Zone, the Traffic Moral Savers "Anzenger" Show plays daily to full houses of children and young couples.

Total Support on Both the Hardware and Software Sides

Isuzu Motors Ltd.

The banner on the special stage boldly proclaims Isuzu's theme for this year's show: "Professional Partner." President Yoshinori Ida explains what the company means: "We want everyone to understand that we emphasize the most basic element in manufacturing, that of seeing things from the user's perspective when developing products and providing services. We do this on both the hardware and the software sides, and we hope customers will be able to feel our ambition and drive as we continue to grow." On the hardware side, Isuzu has 12 vehicles on display, including 7 reference exhibits. It also brings 9 powertrains to the show, 3 of which are reference exhibits.

Isuzu's environmental technology includes 2 new engines that meet the "New Long-Term" emissions standards, a 6-cylinder version and a 4-cylinder version, both based on the company's core "I-CAS (Isuzu Clean Air Solutions)" technology. Its reference exhibits for low-pollution vehicles are all based on the "Elf" and include CNG-MPI (Multi-Point Injection), DME (dimethyl

Reference exhibit of a diesel engine that meets the "New Long-Term" emissions standards.



◀ The "White Army" of trucks at the Isuzu booth underscores the full lineup this company offers.

ether) and hybrid versions, underscoring the fact that Isuzu is fully prepared no matter which power source eventually emerges as dominant.

President Ida says, "The days when you could just crank out and sell hardware are gone." Isuzu has three basic programs on the software side. The first is its "Safe/Economical Driving Seminar," which has been offered to trucking companies since 1995 as a way to teach drivers how to operate their vehicles in more economical ways. More than 4,500 companies around Japan have taken the seminar so far, and in the future Isuzu plans to offer it overseas too.

The second is the "Mimamori-kun Online Service," which offers telematics for commercial vehicles. For instance, it suggests ways that individual drivers can improve their fuel economy and manage their costs. Isuzu launched the service in February of this year and it is already in place on about 350 vehicles. The third program is the "Ohayaku Service," a 24-hour on-call repair service.



▲ The "Elf" low-pollution trio. Whether CNG, DME or hybrid, Isuzu has a vehicle for you.

"Open all Roads: A Full Lineup of Sambar Variations

Subaru

Subaru's theme this year is, "Open all roads: Vehicles for broadening opportunities and enriching life." In the commercial vehicles corner it features a full lineup of variations on the "Subaru Sambar," a vehicle known for its superb driving per-

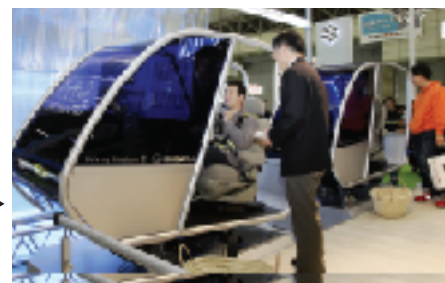
formance and carrying capacity.

The largest crowds form around the reference exhibit of the "Sambar Van Transporter Logistics Pro Spec Delivery Vehicle." The wall between the cabin and the trunk contains a window on the upper left-hand side that can be opened when carrying long objects. There are also detachable hangers for clothing and other features that suit this vehicle to a wide range of users. To facilitate communications, Subaru includes a wireless terminal and printer in the cabin.



◀ The driver-friendly "Logistics Pro Spec" delivery vehicle.

Subaru's popular driving simulator can be enjoyed by all, even those who do not have use of their legs.



"Alto Heart Stand" Moving Store Draws Crowds

Suzuki Motor Corp.

Suzuki's theme this year is "Small Cars for a Big Future." It has 5 reference exhibits and 11 market vehicles at the show.

Brightening up the booth is the "Alto Heart Stand," a concept car based on the new Alto that went on sale on September 13.

The exhibit features a tie-up with "Plants Plants," a chain popular with fashion-conscious urban working women and housewives. It is designed as a moving shop, offering attractive flowers and potted plants.

You are ready for business wherever you park this utility car,



▲The "Alto Heart Stand" has a built-in 40-inch advertising panel.



▲The bright, energetic Suzuki booth.

and it is suited to many different kinds of products. In addition to flowers, it might be used for a health-oriented "oxygen bar," a stand selling the mobile phone decorations that are popular with young women, or perhaps a moving digital storyboard to entertain children.

You can open the passenger door, back door or spring panel on the side to display your wares from any angle. The side panel also contains a built-in 40-inch plasma display. All you have to do is install your own digital video and you can advertise other products that you weren't able to include on the shelves. The "Alto Heart Stand" truly is a "moving wagon sale."

MLIT booth displays large number of low-pollution vehicles

The Ministry of Land, Infrastructure and Transport has a booth in the West Hall to display the results of its programs to develop environment-friendly technologies. Among the highlights are the achievements of the "EFV21" project to create a new generation of low-pollution vehicles. Center stage are 4 low-pollution commercial vehicles that make full use of alternative fuels and hybrid technologies. Topping the list are a low-pollution model designed to run on electricity generated by the engine and an improved version of the Mitsubishi Fuso "Series Hybrid Bus Engine." The goal for this project is an engine with half the fuel consumption of existing models and pollution levels far below the "New Long-Term" standards. Many of Japan's other leading energy-conservation and low-pollution technologies are also on display, including a super clean diesel engine, a parallel hybrid truck, a CNG truck and a DME truck.



JARI booth has popular electric cars

The Japan Automobile Research Institute (JARI) booth features 4 one-seater miniature electric cars. All of the models are capable of carrying up to 30 kg in cargo, making them suitable for delivery services. Three of the 4 are equipped with regeneration brakes that use braking energy to charge the battery. The bodies may be small, but the technology is as advanced as it comes. Many of visitors find themselves stopping at the booth just because the cars are so unusual and eye-catching. And most of those who drop in are impressed by what they see. Re-charge times may be a bit long, but the price of a re-charge is far less than what gas would cost. Children like the cute styling and are more than happy to be given a chance to get behind the wheel.



Volunteer Staff Helps Create a Truly Barrier-free Motor Show

Barrier-free vehicles have become one of the main focuses of this year's Tokyo Motor Show in addition to the commercial vehicles. A significant number of visitors arrive in wheelchairs or are otherwise physically-challenged, and volunteer staff is on hand to assist them as they navigate the show.

A total of 12 volunteers are available at all times, stationed at the West, Central and East gates. Many physically-challenged visitors arrive by themselves without anyone to help, or come in groups, and often they need assistance getting on and off elevators. The volunteer staff are on call for just such situations.

One staff member, Soitsu Morino, who has 6 years of experience working as a volunteer, says, "I began volunteering as a way to study how events were run, but volunteering has become a regular thing with me. It's very satisfying to know that I've been able to help out." "Barrier-free" is a concept for the whole show, not just the vehicles.



▲ Soitsu Morino is a regular volunteer.

BODY



Joint Commercial Vehicle Body Exhibit: Everything from Commercial Models to Intriguing Ideas

The Joint Commercial Vehicle Body Exhibition booth in the Central Hall contains commercial vehicle bodies of all shapes and sizes. On the transportation side are lightweight containers from Nippon Fruehauf that are suitable for modal shifts from trucks to trains and ferries. Tokyu Car displays an all gas-oil 20 kℓ tank trailer; Pabco, a hydraulic wing body that has the largest capacity in its class.

Kitamura Manufacturing has an adjustable-height 2-ton truck. The ability to change the height of the cargo hold makes this an excellent choice for roads with height restrictions. Fuji Car uses a screw to make continuous loading possible with its new garbage truck. Among the market models on display



▲Fuji Car uses a screw for continuous pressure loading of its new garbage truck.



▲Sagawa Shatai combines a CNG truck and a solar cell to demonstrate its environmental technology.

are Sugawa Shatai's "Rakuni V" and Fuji Body's aluminum vending services vehicle. Sagawa Shatai shows its ecology side with a concept car that adds a solar cell to a natural gas-powered truck.

Clarion joins with NAIS Location Systems to introduce an advanced logistical information system. Sumitomo 3M and Reflexite Japan demonstrate reflective safety tapes using prism films.

PARTS



One-stop Exhibit of Commercial Vehicle Parts; Barrier-free Related Products Also Displayed

The parts area is located in the West Hall and has a wide selection of commercial vehicle parts on display. Bridgestone's "GREATEC" is an ultra-flat tire that allows double tires to be replaced by single. Dunlop and Yokohama Rubber also show off their resource-saving and safety-related wares. Keihin Seimitsu Kogyo has a new automatic transmission that reduces the load on drivers. Based on a manual shift, the unit eliminates the clutch in its shifting mechanism.

Also on display are large numbers of high quality parts for the more fundamental elements of commercial vehicle production. Sawafuji Electric shows off generators; MAHLE, engine parts; Akebono Brake, high-performance brake assemblies; and NHK Spring, springs. All of these suppliers provide the basic building components



for trucks around the world. Miyama's "Eco-Drive" monitoring system represents a new advance in tachographs, while Panasonic has its next generation of ETC products on display.

◀The Panasonic Booth shows the next generation of ETC equipment and a wide range of ITS technologies.



▲In the Bridgestone booth, the ultra-flat tire uses an air pressure adjustment mechanism to enhance safety.

graphs, while Panasonic has its next generation of ETC products on display.

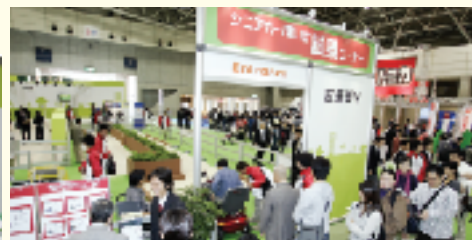
The inclusion of barrier-free vehicles in the theme has brought a new selection of barrier-free parts to the show as well. Takata exhibits a carbon-based wheelchair designed for use with automobiles. Recaro transforms ordinary automobile seats into barrier-free models. Kawashima Textile MFG shows its ambitions in the barrier-free market with "Banex," a material that has been selected for use in wheelchairs.

TOPICS

"Barrier-free Vehicles Park," a chance to get first-hand experience with barrier-free vehicles

Barrier-free Vehicles Park provides the general public with the opportunity to see and gain first-hand experience with manual wheelchairs, electric wheelchairs and a broad range of other barrier-free vehicles and technologies. Long lines form for the chance to test drive. Inside the park is a mini-course set up for electric wheelchair rides, etc., with staff on hand to instruct riders as they navigate the course. Outside the course, other types of barrier-free vehicles are on display so that visitors can experience for themselves how wheelchair users get in and out of cars. Masashi Takahashi tried getting in and out with a wheelchair, and he commented, "My father is getting older and his legs are growing weak. It's hard for him to get in and out of the car, but it would be really easy to take him out with a barrier-free vehicle."

Barrier-free Vehicles Park also contains a booth for consultations on barrier-free vehicles staffed by representatives of major auto-makers and JAMA. Visitors may get answers to any questions they have about barrier-free vehicles.



Honda

Sports Driving, Barrier-free Style

Honda has 6 barrier-free vehicles at the show. Its theme for barrier-free vehicle development is "the dream of mobility," and it brings a typically Honda perspective to this technology.

The "Almas Concept" is based on the "Elysion" minivan. While it looks like an ordinary car from the outside, the doors are remote control operated and slide forwards; there is also a lift-up seat on the driver's side and an automated wheelchair lift in the rear. The system enables wheelchair users to get in and out of the



▲The "Power Techmatic" offers sports driving in a barrier-free package.



▲The "Monpal" electric wheelchair.

Environment Minister Koike visits the show

Ms. Yuriko Koike, Minister of the Environment, visited the Tokyo Motor Show the afternoon of November 5. She spent about an hour observing the booths, and was particularly surprised by how fashionable the commercial vehicles were. "They're like moving decorations," she said.

The Kyoto Protocol, an international treaty on global warming, is scheduled to take effect next spring, and Minister Koike commented, "I see environment-friendly vehicles coming into the mainstream and companies competing vigorously in this area; this gives me hope. I'm deeply impressed with what automakers are doing for the environment." Minister Koike says that she herself is



driver's seat on their own, and all they have to do is fold up the wheelchair for it to be automatically stored in the rear.

The system was developed with advice from Takuma Aoki, a former WGP motorcycle rider who is confined to a wheelchair after a racing accident.

The "Power Techmatic" is a concept car based on the "Fit," featuring hand-operation for the accelerator and brakes to allow physically-challenged drivers to experience sports driving. The booth also has 3 market barrier-free vehicles and the "Monpal", an original Honda electric wheelchair. All of the products bring a very Honda-like "joy of movement" to the barrier-free category.

an avid driver, and she took the time to view a demonstration of advanced telematics that offer hands-free telephone services.



Symposiums

November 5 (Friday) 10:30-13:30, International Conference Room

Development of the Leading-edge Low-emission Vehicles in the World
— Aiming for Realization of Zero Emission Commercial Vehicles —

Ministry of Land, Infrastructure and Transport

●Speakers

Dr. Makoto Ikegami (Professor Emeritus, Kyoto University)
Akira Noda (Director Executive Researcher, National Traffic Safety and Environment Laboratory)
Dr. Yoshio Sato (DME Truck Development Team)
Dr. Yuichi Goto (CNG Truck Development Team)
Morimasa Hayashida (Series Hybrid Development Team)
Kazuyuki Narusawa (Parallel Hybrid Truck Development Team)
Yuzo Aoyagi (Super Clean Diesel Engine Development Team)

The Ministry of Land, Infrastructure and Transport is engaged in a project to promote development of the next generation of low-pollution vehicles. This symposium features presentations on development results for the 5 technologies at the core of the project. It began with a keynote address from Mr. Ikegami, who emphasized the importance of reducing greenhouse gases, following with Mr. Noda, who gave an outline of the project. Representatives from each of the technology teams then reported on their achievements. All of the technologies are in line with global trends towards reducing greenhouse gas emissions, and the presentations provided the audience with much food for thought.



November 5 (Friday) 14:00-17:30, Central Conference Room 201

The challenge to serious accidents caused by trucks
(real world accidents and role of safety measures for vehicles)

— The 5th Car Safety Symposium —

Ministry of Land, Infrastructure and Transport

●Coordinator

Kazunori Iwakoshi (President, JAF MATE)

●Speakers/Panelists

Yoshihiro Sukegawa (Researcher, Safety Research Division Crash Safety, Japan Automobile Research Institute)
Chiho Okubo (Motor Life journalist)
Masaaki Yokotsuka (Chairman, Saitama Trucking Association)
Sadao Horino (Associate Professor, Faculty of Engineering, Kanagawa University)
Hideaki Sugiura (Chairman, Heavy Vehicle Subcommittee, JAMA)
Kenji Wani (Director, Road Transport Bureau, Ministry of Land, Infrastructure and Transport)

The 5th Car Safety Symposium was held in two parts. During the first half, Mr. Wani reported on "recent trends in car safety," followed by speeches from Mr. Sukegawa on "large vehicle accidents" and Mr. Sugiura on "improvements in large vehicle safety." In the second half, Mr. Iwakoshi served as coordinator for a vigorous debate on measures to enhance the safety of large trucks. Most of the panelists agreed on the need for efficient safety programs to achieve the new target of "less than 5,000 fatalities in 10 years."



Mr. Kazunori Iwakoshi

Lots of Hands-on and Interactive Events!

Today's

Events

November 6

Traffic Moral Savers "Anzenger Show"
(South Rest Zone)

・10:30~10:55 ・12:45~13:10 ・14:00~14:25

Camp Nepos
(South Rest Zone)

・11:35~12:00 ・13:30~13:55

Prefectural Police Show Ventriloquist
(South Rest Zone)

・11:00~11:30

Symposiums

Environment-Friendly Freight Transportation
(International Conference Room)

14:00~16:30 (Priority Entry is Given to Pre-Registrants)

Vehicle Taxation 2004

(Central Conference Room 201)

14:00~15:30 (Priority Entry is Given to Pre-Registrants)

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November 5 visitors 40,200persons Total of Visitors 139,100persons

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JAMA