

"Driving Tomorrow!" from Tokyo みんながココロに描いてる、くるまのすべてに新提案。

# **Fusing Bikes and Scooters**



Young people are coming back to the world of two-wheelers, and the popularity is due in large part to "big scooters" with engines in excess of 250 cc. This trend has also been helped by easing of Japanese regulations. This year, it was made legal to ride double on Japanese expressways for the first time and a new "automatic transmission only" motorcycle license for bikes of 650 cc or less was established in June. Accordingly, motorcycle manufacturers anticipate a rise in demand.

In this issue we look at the current Tokyo Motor Show exhibits of four Japanese motorcycle manufacturers—Honda, Yamaha, Suzuki and Kawasaki—to see how they are reacting to this upswing in the market.

Between the four companies, there are nearly 50 World Premiere and Japan Premiere motorcycles on display. One can see from the booths how demand is polarizing. All of them have large, luxury bikes designed for older riders, as well as an array of the "big scooters" that are popular with younger people and women and come with more fashionable designs and wider variations in use. Finally, you also see a scattering of "super sport models" targeted at riders in their 30s and 40s who still pine for the racer replicas of the 80s.

Advanced technologies are also something to check out. Booths feature hybrid motorcycles, fuel-cell bikes, front-rear tandem brakes, and auto shift mechanisms that offer a choice between automatic and manual transmissions.

Headlining the concept models are Honda's E4-01 and Forza Z ABS, Yamaha's Gen-Ryu and MAXAM 3000 and Suzuki's Skywave 250 Type-S. All of them are designed to fuse the sporty performance of traditional motorcycles with the comfort and luggage capacity of scooters, and they show the potential that the "big scooter" boom has to expand the frontiers of the motorcycle, regardless of engine size.

### Honda Motor E4-01: a New Category in AT Super Sports







Forza Z ABS

Honda has four World Premieres at the show, including the E4-01, a scooter-like concept model with a 900 cc engine. By combining an advanced automatic transmission, a unit pro-link suspension and a pro-arm, Honda achieves handling that is on par with super sports bikes and comfort that puts most tourers to shame. The company says it is looking to create a new generation of model values that cannot be pigeonholed into any existing category.

Briefing Column

Another interesting concept model is the NP6-D, designed by a group of young Honda developers working from a 125 cc scooter base. While emphasizing active performance, they also took care to increase the luggage capacity by using a "swing arm" seat that extends from the side. Between these two concept models, one can see Honda's desire to fit its products to the lifestyles of today's young people.

The other Honda World Premiere is the Forza Z ABS, a 250 cc AT sport cruiser that is scheduled for market launch soon. In the racing corner, you can see the CBR1000RRW, the machine that won Honda the Suzuka 8 endurance road race.

The safety and environment corner features GOLDWING, which comes with the world's first airbag system for massproduced motorcycles.



The youthful NP6-D

### Always doing more to make dreams come true

Takeo Fukui, President and Representative Director

The themes for Honda motorcycles are "Dream Wings," and "always doing more to make dreams come true." Over the last decade, the company has improved fuel economy of its motorcycles by 34% and developed the world's first airbag system for mass-produced bikes. These are just some examples of how we are charting new territory in environment and safety, and I hope that you will see from them the new values that Honda is creating for the future.



## the "Stratosphere," the Engine Determines the Bike's Character





The Stratosphere concept model is Suzuki's headline motor-

cycle, making its World Premiere at this year's Tokyo Motor

Show. Suzuki calls it a "feasible near-future motorcycle."

acceleration and driving feel that has never before been available in this class. In the styling, Suzuki emphasized the functional beauty of the engine form, and indeed it is the engine itself that gives this motorcycle its classy character.

> Another feature is the auto shift mechanism that allows the driver to choose between automatic and manual transmission.

> Also making its world premiere at the Suzuki booth is the GSR400, which the company says is a "naked sportbike generating real passion." The GSX-R series comes with a newly developed water-cooled 4-cylinder engine, and is the first 400 cc engine in the world to have electronically-controlled fuel injection.

The Skywave 250 Type-S is a World Premiere reference

exhibit that represents the next stage in the evolution of the "big scooter." It stands out for its fusion of luxury and athleticism.

In environmental technologies, Suzuki displays a "constantly variable Miller cycle engine" that achieves a 40% gain in fuel efficiency.



The new constantly variable

The extremely compact 1100 cc in-line-6-cylinder engine is placed horizontally to successfully create the kind of smooth



The Skywave 250 Type-S is a new evolution in the big scooter



#### What the next generation of models should be like

Hiroshi Tsuda, President & COO

Our focus this year is on "carrying people, carrying things, carrying dreams:

Suzuki wants to show you not some far-off dream, but a new generation of motorcycles comprised of technologies that can be achieved in the near future. For this year's show, we have chosen models that adapt core motorcycle values to the changes taking place in our world today.

### Nine World Premieres Generate Yamaha Excitement





The North Hall is connected to the area around JR Kaihim Makuhari Station by a long mall, and as soon as you enter it you are greeted by the Yamaha booth on the right side of the central passageway. Calling itself the "Yamaha Museum," the booth has an artsy touch with its white color scheme. This is a milestone year for Yamaha, the 50th anniversary of its founding, and President Kajikawa vows that the company "will continue to move forward and create new excitement in the next 50 years too." To underscore that commitment, it has chosen "The Art of Engineering" as its main theme, bringing with it 21 concept, production, and export motorcycles, including nine World Premieres and seven Japan Premieres.



The electric DEINONYCHUS with in-wheel, two-wheel drive

The FC-me fuel-cell motorcycle Topping the list is Gen-Ryu, a concept model of a "High-

performance Hybrid Motorcycle." By combining a lightweight, compact YZF-R6 600 cc engine and a high-output, highefficiency motor, Yamaha simultaneously achieves the handling and driving fun of a traditional motorcycle and the comfort and luggage capacity of a scooter. The bike even has voicecontrolled navigation and a rear monitoring system.

At the very front of the booth is the DEINONYCHUS, an electric motorcycle with in-wheel, two-wheel drive. Yamaha takes advantage of the bike's freedom of layout to give it an aluminum frame that can be expanded and collapsed lengthwise. Another notable concept model is the FC-me fuel-cell motorcycle that runs on a liquid methanol-water solution. With all the World and Japan Premieres, wherever you go in the booth, you are sure to find Yamaha-style excitement.



Briefing Column

### Manufacturing strengths to become a dominant brand

Takashi Kajikawa, President

At this year's Tokyo Motor Show, we want to highlight our manufacturing strengths as we seek to create a dominant brand. We have developed a wide array of original technologies and uniquely Yamaha value-added models, and we are also working on what we call "Smart Power," a new power source that will be demonstrated through our new models and reference exhibits.

#### he New ZZR1400 Flagship Model Kawasaki Heavy



Kawasaki Heavy's booth is done in a bright, green color scheme. It has 26 models on display, including seven new models for 2006. Kawasaki's ZZR1400 flagship model has been redesigned with quad projector beam headlamps. This large bike is the image leader for Kawasaki motorcycles and has long been prized in export markets.



The ER-6n mid-size sports model

The Ninja ZX-10R large-displacement "super sports model" is designed for top circuit performance. The ER-6n mid-size sports model was announced in June and is popular in Europe; its



The new ZZR1400 flagship

ER-6f sister model is also popular and just as sporty but comes with a full cowl to improve wind pressure at higher speeds.



Ninia ZX-10R



#### Kawasaki brand prides itself on distinctive feel and performance

Shinichi Morita, Senior Vice President Kawasaki Heavy

There are many different brands of motorcycle. Our highest priority is to maintain and increase the distinctive feel and performance that tells you immediately you are riding a Kawasaki and that it is indeed a Kawasaki you want to have. We are confident that you will be impressed by the advanced technologies we have on display at the Tokyo Motor Show.

#### TOKYO MOTOR SHOW 2005 **Symposium**

(held October 31)

#### "The First Step toward Sustainable Mobility"

■Opening remarks

Toshio Kobayashi, President, Japan Automobile Research Institute

■Introduction/MC

Kunihiko Masunaga, Head of FC-EV Center, Japan Automobile Research Institute

■Speakers

Hisashi Ishitani, Chairman, World Electric Vehicle Association; Professor, Keio University Shinsuke Ito, Deputy Director, Vehicle Division, Ministry of Economy, Trade and Industry Shogo Watanabe, Deputy General Manager, FC-EV Center of the Japan Automobile Research Institute Hiroaki Yoshida, Sr. Expert, Advanced Engineering Dept., Development Engineering Office, Mitsubishi Motors

■Sponsors: Japan Automobile Research Institute, International Energy Agency (IEA)

With global warming and rapid growth of Asian markets, it is essential that automobiles of the future harmonize environment, energy, industry and society. The symposium began with Hisashi Ishitani discussing the roles to be played by battery electric vehicles (BEV), hybrid electric vehicles (HEV) and fuel cell vehicles (FCV) in achieving sustainable mobility.

Shinsuke Ito then spoke from the government perspective, explaining the direction for a balanced approach to resolve three major issues: fundamental reductions of toxic substances in emissions; fundamental reductions in CO2 emissions; and energy policies in the transportation sector, which currently is overdependent on oil (in other words, finding alternative fuels). Over the short term, "top runner" concerns dictate that the approach will be to improve the fuel economy of gasoline and diesel vehicles, but over the longer term, clean-energy

FCV, HEV, EV and CNG (natural gas) technologies as well as clean diesel vehicles that can clear future emissions regulations will need to become more widespread.

Shogo Watanabe discussed basic technologies required to spread FCVs. Among the issues he analyzed were developing international standards for hydrogen and FCVs, overhauling regulations and evaluating safety. He concluded that safe and convenient use of hydrogen is a possibility.

Hiroaki Yoshida spoke from the perspective of an automaker about attempts to develop and spread EVs. He reviewed the history of development efforts and reported on new performance improvements to lithium-ion batteries. He also discussed the outlook for Mitsubishi's MIEV, a new generation in electric vehicles. Finally, he emphasized the need for the government to provide subsidies and tax breaks to help spread EVs.

In the second part of the symposium, the IEA held a public workshop on electric motorcycles.





"Ikoi Mall" is located between the East and Center halls, and it is here that you will find the Tokyo Electric Power booth with its catchphrase, "Switch!" The focus of its display is a Subaru R1e electric car and an "Eco-cute" supercritical carbon dioxidepowered, heat pump-based hot water system for the home, the first of its kind anywhere in the world. It advocates the "switch" to an all-electric lifestyle.

Both units are powered by a 200 V AC single-phase power line of the type readily available for home use. The R1e battery has a range of 120 km (10/15 mode) and can be recharged to a 90% level in 5 minutes without using any special equipment. Tokyo Electric Power will be adding R1e-based EVs to its fleet to experiment with and demonstrate the concept. This futuristic booth indicates that the EV age may not be so far off.

#### Questions, Lost Children, Lost and Found... The One-Stop Service Spot **Information Plaza**

Information Plaza located at 1F Central Hall



The Information Plaza bustles everyday with visitor questions, lost children and lost and found services. Most of the 100-200 questions it receives daily are asking directions to exhibitor booths and events. In addition to seven regular staff members, an interpreter is stationed at the booth to serve international visitors.

The Lost Child Center has been handling as many as 30 children on a busy Saturday or Sunday. There is no public announcement system, so instead approximately 350 redjacketed operations staff and 340 security staff (holiday staffing) are sent out to search, using clothing descriptions and other features to identify the people they are looking for. They are generally found quickly, within one hour. There are also five staff members who stay at the center and keep an eye on children who are waiting for their parents, entertaining them with "Thomas the Tank Engine" videos and a selection of toys.

Weekends see about 100 lost and found reports per day. The majority tend to be an umbrellas, mobile phones and digital cameras, but there have been some curious items reported too, like amulets and boxes of cake.

#### Today's EVENTS 2-Nov-05 (Wed)

\* Symposium (Prior registrants given priority)

14:00~17:30 The 6th Traffic Safety Symposium -Assessing Traffic Safety Program-(International Conference Room, 2F, International Conference Hall)

\*bay fm live program

13:30~14:00 Festival Park in the West Rest Zone

#### \* Clean Energy Vehicle Test Rides

10 : 30~16 : 30 Special course in Makuhari Seaside Park

\* Juggling Performance

12: 45~13: 15 14: 45~15: 15 | Festival Park in the West Rest Zone

16:00~16:30\_

\* Schedules subject to change depending on weather.



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November 1 visitors 71,500 persons Total visitors 945,200 persons Tokyo Motor Show News Vol. 14 November 2, 2005

Publisher: Public Relations Office

Japan Automobile Manufacturers Association, Inc.

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