VAMAHA MOTOR CO., LTD. JULY 1, 2004 ENGLISH BIMONTHLY

### **Aluminum Was Meant to Fly**

An aluminum frame was a logical next step for the worldleading YZ motocrossers. But the Yamaha development team set their sights higher. They were out to build the lightest frame ever for a production motocrosser. That's what they did, and a lot more. The 2005 YZ machines will continue to be the machine of choice for people who want the best—and maybe want to leave the ground once in a while.

# **"The motocrosser? It's the form of the motocrosser? It's the form of the motocroycle."** Talking to the developers of the 2005



Project Leader Takayoshi Fukuda joined Yamaha Motor Co., Ltd. (YMC) in 1981 and has worked on the development of the YZ models ever since. For the YZ400F he served as chassis project chief

On June 16, the long-awaited 2005 model remakes of the famed Yamaha YZ motocrossers were unveiled at Yamaha Motor Corp., USA's (YMUS) National Dealers Meeting. At the same time, off-road bike fans from around the world went on-line to check out the new YZs with their exciting new aluminum frame and fine-tuned specs on the YMUS website.

To find out about the new technologies and the development philosophy behind the new YZs, Yamaha News met with the YZ Project Leader, Mr. Takayoshi Fukuda, and members of his development team.

YN: What made you decide to switch to an aluminum frame for the 2005 YZs?



Takehisa Katsura is a veleran of numerous Yamaha factory machine development projects for the World GP and All Japan Championships competition

in the Chassis Supply System group's technology team, where he coordinates development and manufacturing efforts
Fukuda: Certainly the call was there from the market, but we on the development team also had the basic desire to build the lightest frame we possibly could. Reducing weight is always a major part of improving performance and that's why Yamaha has put a lot of R&D efforts into a variety of weight-reduction technologies. Besides alu-

Since joining YMC in 1998, Masatoshi

Miyamoto has worked on engineering design for on-road models and now works

minum, you will also find that we have worked a good number of titanium parts into the YZs as well.

The challenge of developing a new aluminum frame this time was one more part of these weight reduction efforts. Steel has its own merits, like a good amount of flexibility. But, with aluminum it is the metal's lightness, and we wanted to make the most of it. We also chose aluminum because of the potential to make a more attractive product. YN: Did you succeed in getting the weight reduction you were aiming for?

**Fukuda:** Our aim was to build the world's lightest production motocrosser frame, and we succeeded in that.

YN: What was the technological background behind the decision to go with aluminum?

**Katsura:** The history of aluminum frame development for the YZ bikes actually goes back 17 or 18 years, during which the "semi-double cradle" frame structure emerged as the best answer from the aspect of strength.

Our aluminum frame R&D know-how goes back to the 1987-88 YZM factory machines that competed in the 500cc World Motocross championships. Since then we have introduced aluminum frame machines in the All Japan MX



Yamaha began exploring the possibilities of aluminum frames on motocrossers 18 years ago. The YZM500 entered in the 88' WMX

#### The ABCs of Motocross

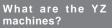
#### What is Motocross?

Motocross is a form of competition born in Europe where riders compete for speed over circuits of an unpaved course covering natural terrain. The name is an abbreviation of "motorcycle cross-country."



What is the attraction of motocross?

In the jumps and sliding turns of motocross, riders discover new potential in the motorcycle. Spectators enjoy the thrill of watching the action close up at trackside and the smell of the earth and nature around them.



These are motocrosser bikes designed specifically for motocross. YZ is the Yamaha product name. Since the release of the first



# fundamental

championships since 1991 and, most recently, we've developed aluminum frames for the 4-stroke YZ GP machines.

YN: When did development begin for the new 2005 YZs?

Katsura: Actual work began in the summer of 2002 just after we finished work on the YZ450F. We entered the first prototype in the last round of the All Japan MX in October that year and continued

tests on it afterwards.

YN: How did those tests go?

Katsura: At the end of that year we took the first prototype to America for

local tests, but the initial responses were not good. The test riders said, "It feels stiff" or, "The feeling during cornering is unnatural." I remember feeling pretty depressed on the return trip.

#### YN: What does a stiff feeling mean in this case?

Katsura: As anyone can see just by watching a motocrosser come down from a jump, the YZ frames demand far more strength than a road model, in terms of

Numerous types of aluminum are used in the YZ 125/250's integrated frame design

have a history now exceeding 31 years. What is the fastest class?

class came to be recognized as the fastest class.

Have 2-strokes been the standard?

The simple structure and lightness of a 2-stroke engine has long made them the choice for motocross machines. In Europe, where motocrossing was born, 2-stroke models were always the standard in motocross until the mid-1990s.

rigidity. In order to get that strength, we initially thickened the upper and lower halves of the main frame. This increased the longitudinal rigidity of the frame and gave it the "stiff" feeling the test riders complained about. So, our development problem became how to reduce this longitudinal rigidity. In other words we had to maintain the required strength while cutting down on the stiff feeling the rider gets.

#### YN: Did the choice of types of aluminum play a role in this?

**Katsura:** We ended up using several different types of aluminum in these frames, including cast parts where the aluminum is melted down and cast in a mold, and forged and extruded parts where the aluminum is heated and then forged into the desired shape or forced through a die to produce stock of a given shape. Extruded stock is used for the lower half of the main frame, while forged aluminum, which has more flexibility, or "forgiveness," is used for the upper half. These are then welded together to create a frame with the right balance of rigidity and strength. Using the right types of aluminum and the right processing methods enables us to come up with the optimum combination of qualities for the different parts of the frame.

That's why the close teamwork we got from the manufacturing division was so

#### Why did Yamaha develop its 4-stroke motocrossers? As environmental concerns grew, user needs

changed and European makers began introducing 4-stroke models in the 500cc class of the World Motocross GP, Yamaha became the first Japanese maker to develop and introduce a 4-stroke production motocrosser in 1997.



## **UP FRONT**

very important in this frame development project.

#### YN: What did this "teamwork" consist of?

Fukuda: Because these are competition models, we must achieve high levels of precision in the welds, for one thing. For example, even the shape of each welding bead affects the final strength. So, we realized that it would be important to work closely with manufacturing and use actual prototype work during the design process to decide what kinds of beads to use and what adjustments could be made in the welding conditions and weld angles. So manufacturing was involved from the very first stages of the design.

#### YN: What form did this participation actually take?

Fukuda: Generally speaking, the easier a component is to manufacture the heavier it will be. Conversely, building something light requires higher levels of precision manufacturing. Of course, on the manufacturing side, the more leeway they have in terms of precision, the easier things are. But, the engineering side wants accuracy right down to the millimeter. So it is a matter of how much we can give each other to get the best result.

#### YN: Was this a first for you on the manufacturing side?

**Miyamoto:** Usually, the designers



350 employees work at Yamaha Motor's Morimachi Factory located about 20 minutes north by car from YMC's lwata headquarters. The main work here is frame welding and processing



The aluminum frame welding staff at YMC's Morimachi Factory. All are veteran aluminum welding craftsmen



Where extra skill and precision are needed, the welding is done manually by expert welders



The YZ 125/250 frame is made up of 13 aluminum parts that are welded together in over ten different steps, with most of the welding done by carefully programmed robots

in size by 2001 compared to the 1997 level. This growth was led by Yamaha's YZ 4-stroke and its WR sister model. Many people who had formerly enjoyed 2-stroke motocrossing were attracted to the idea of riding a 4-stroke, and this trend continues today

decide on the specifications and our job is then to translate them into a manufacturing process. But with the YZ project this time there was constant discussion between us about the possibilities of structure and processing methods right from the beginning. And some of the debate got pretty heated: "We can do this but not this" or, "This is out of the question!" There was a lot of serious give and take all the way. I can't remember a project ever being this intense, especially in the debates about weld specifications.

#### YN: Were there any ideas that the manufacturing side initiated?

Miyamoto: Yes. In aluminum welding the key is the balance of elements including the strength of electric current used, the angle of the welding torch, its speed, the welding medium used and the shape of the resulting weld cross-section. Also, structurally speaking, there are shapes that are ideal in design terms but not from a manufacturing standpoint. There are shapes that are easy to weld and shapes that are extremely difficult.

This time we made suggestions about the shapes of the welds on the frame and

> participated in the discussions where the final specs were decided.

#### YN: Do you use welding robots in the manufacturing?

Miyamoto: Most of our welding is done by robots, but it is experienced welding specialists who have to program the robots. Only experience can teach you what combinations of current strength, welding speed and welding direction will produce the ideal weld.

YN: Are there some handcrafted parts as well?

### What are the different types of motocross

competitions around the world? The World Motocross Championships (WMX) are competed in the pinnacle "MX1" class between 250cc "MX2" class is competed by 125cc 2-stroke and 250cc 4-stroke machines. In the USA, the stadium-course AMA Supercross competition is the most popular.

What effect did the 4-

stroke YZ have on the

An especially big effect

was seen in the US mar-ket. With the introduction of the first 4-stroke YZ as a

market?



**Miyamoto:** There are. Parts like the head pipe assembly where an especially high level of precision is required must be done by hand by expert welders. With the new YZ frame there are a total of 13 parts that are welded together to create the frame. The total weld length for these 13 parts is four meters. This is actually far less than for an equivalent steel frame, but on the other hand there is a higher level of accuracy required in aluminum welds.

# YN: So, what is the ride of the new aluminum framed YZ bikes like?

**Katsura:** The ride cannot be expressed in terms of numbers, but basically we can say that we have taken the recognized handling stability of the YZ series models up to now and further refined and evolved the bikes' overall performance. And a new element of lightness has been added to this. The lighter handling feeling when you lean the bike into the turns should result in less fatigue for riders near the end of a race. I think this is a feeling that will exceed the expectations of the customers.

YN: Finally, we would like to ask each of you what the YZ bikes mean to you personally.

**Miyamoto:** In the manufacturing division, we have a strong awareness that the YZ models have a very special place among the Yamaha motorcycles. We are always being asked how the YZ production is going and everyone takes these questions very seriously. Performance and ease of manufacture are opposing qualities, and we are always looking for ways to achieve both without compromise. This challenge lies at the heart of Yamaha's goal of "Exciting Performance and Stylish Design" and in the end it contributes to the quality of other products as well.

**Katsura:** I am very interested in the concept of the motocrosser as a product

designed for 3-dimensional motion. No other type of motorcycle is designed to leave the ground in jumps. People, especially young people, have always been tempted to see how high a height they can jump or dive from. That is the kind of challenge—and excitement—I feel when working with the YZ bikes.

Fukuda: These are competition models, so there is always a consciousness that we can't let ourselves be beaten by the rival manufacturers. This sense of competition provides a good part of our motivation. But, to tell the truth. I think of the motocrosser as the most fundamental form of the motorcycle and what it can and should be. Challenging to the limits of speed on the road is one other fundamental direction, but when you think about the type of riding that only a motorcycle can provide, I think the motocrosser is its most essential form. I hope that everyone will continue to watch what we do to keep Yamaha motocrossers the best.

After the January-to-May Supercross series ends, the outdoor motocross Nationals begin and run until September.

#### How do Yamaha Motocrossers do in these competitions? Yamaha won its first WMX title in 1973 in the 250cc

Yamaha won its first WMX title in 1973 in the 250cc class. From then until 2003, Yamaha has won 16 rider titles and 14 manufacturers titles. In AMA Supercross, this year's (2004) series championship by Chad Reed gave Yamaha its eighth title. How about feedback to production models? The motocross suspensions and

The motocross suspensions and many other technologies developed for motocross competition



models have been fed back into many production models. Many of the Yamaha engineers who worked on the development of YZ models have gone on to work on general market models for CBU and CKD models and their technologies have spread to markets around the world.

# SERIAL 44 TERNATIONAL FOCUS

#### Chongqing Jianshe-Yamaha Motor Co., Ltd. (JYM)

Location: Chongqing, China President: Kazumasa Atsumi Employees: 1,500





With an annual demand of approximately 12 million units, China is already the world's biggest motorcycle market. And, with huge potential still to be developed demand is

Mr. Hiromitsu Okura, Secretary of JYM

continuing to grow at a slow but steady pace. What's more, in recent years, China has also emerged as the world's largest exporter of motorcycles. In 2003 alone, some 3 million Chinesemade motorcycles were shipped to overseas markets.

In the city of Chongqing, where the Yamaha motorcycle manufacturer Chongqing Jianshe-Yamaha Motor Co., Ltd. (JYM) has its factory, some 4 million motorcycles are produced each year, making this the largest motorcycle production center in the world. What makes the Chinese motorcycle market unique is not only its size, however, it is also surely the most competitive in the world, with over 100 companies struggling to survive an intense industry shakedown.

#### Yamaha faces the competition

Until recently, the foreign joint-venture companies in Chinese competed with a market positioning that set them apart from the local makers by offering high-quality products capable of commanding higher prices.

## Building a Place in the Wo China, a 12 million-unit motorcycle market

Recent developments have radically changed that scenario, however. First major cities have made an effort to combat air pollution and traffic congestion by placing limits on the number of motorcycles that are granted license plates. This has imposed a ceiling on motorcycle demand in these urban centers that have been the main markets for the higher value products of makers like JYM and other overseas joint-venture companies.

At the same time, the competition from the local makers with their improving products has also gotten stronger, forcing the joint-venture makers to act aggressively to cut costs.

In such market conditions, JYM is working to advance the development of products with

competitive cost performance, like the new Yamaha YBR125 (Chinese market name: Tianjian), which it succeeded in launching with record speed and with high product quality.



Dealers at the regional meeting in Xian test-rode the YBR and praised its starting performance, low vibration and comfortable ride

## A great start and sudden crisis

In October 2002, motorcycle dealers from around China gathered in Chongqing to attend the launch event for the new YBR125. This dealer meeting and product launch were hailed unanimously as the most complete and successful such event ever held in the Chinese market. The impact it had on the dealers was great and the outlook for the



YBR was bright. This success also gave momentum to a series of dealer meetings in the country's

The YBR release brought many dealers to the Yamaha sales network and over 500 dealers attended marketing seminars like this and toured the JYM factory, which impressed the dealers and differentiated Yamaha from the other brands smaller interior markets that until now Yamaha had been unable to really penetrate. These events helped spread dealer and customer understand-



Nearly 100 dealers attended the Xinjiang Uygur regional dealers meeting in Oct. 2002 where the YBR was introduced

ing of the Yamaha brand and promoted the rapid expansion of territory and sales for the YBR.

To reach even more users in the more remote areas, a promotional "caravan" program also got under way, bringing the product to the customers with local displays and test-ride events. Among these activities, the test rides were especially effective in giving customers a chance to actually ride the YBR and experience for themselves the difference from the similar-looking bikes by other makers. More and more users were now aware of the advantages of the Yamaha product and the word has spread quickly.

However, no sooner had the YBR125 launch reached full stride than the SARS crisis struck. Amidst the threat of this lethal epidemic, many regions slapped a ban on events like the YBR caravans that gathered large crowds of people. At the same time, private consumption slumped in the wake of the crisis, bringing another devastating blow to this important product launch.

## YBR recovers and finds strong market positioning

Despite the ban on events in some regions, the JYM team continued to drive thousands of kilometers from Chongqing to bring the YBR caravan campaign to remoter areas unaffected by the SARS related bans. In the end, JYM staff and local dealers worked together and weathered the hard times. These efforts produced new and closer relationships than ever before between the company and

# rld's Largest Market



Members of a new Yamaha Club founding event organized by a dealership in Zhejiang province. The Yamaha user club program promoted nationwide is adding momentum to the new leisure-use trend in China

#### its nationwide dealers.

By the time the SARS crisis had subsided, the connections built during this period would translate into a powerfully functioning sales network that would drive sales of the YBR to new heights. Meanwhile, JYM had its sights set on the growing demand for motorcycles as leisure-use vehicles. To encourage motorcycling as a leisure pastime and build stronger, lasting relationships with the customers, JYM launched a Yamaha Club program for Yamaha owners. This was followed by a rapid succession of other promotional efforts, like entering the YBR in the Chomolungma (Mt. Everest) Rally, where the strength and reliability of the product was proven when three YBR125s successfully completed a 1,370 km round trip from the Tibetan capital, Lhasa to the base camp of



Three YBR125s reached the ML Everest base camp at 5,520 meters in the Chomolungma Rally on Oct.18, 2003 For more details about the Chomolungma Rally see our 2004 Yamaha News No.1.



exercises in front of Chongqing's Great Hall of the People. In every park throughout China people gather shortly after 6:00 every morning to enjoy Tai chl, dancing or badminton.

#### Capital city: Beijing Area: 9.6 million sq. km Population: 1.27 billion Language: Chinese

China

#### A Nation of Vitality and a 5,000-year History

Everywhere you go in China there are visages of its proud history, 29 of which are registered under the World Heritage program. In Chongqing where the JYM is located, you will see the famous Grottoes of Dazu with their 50,000 Buddhist sculptures. The world's most populous nation, China is now booming economically, with buildings and roads under construction everywhere. The administrative districts of its major cities now bristle with skyscrapers, and the speed of the construction boom is awesome. From the mornings, when families gather around breakfast tables full of various dishes and lively conversation to the evenings when the workday is done and the wine begins to flow, the days are full of vivacious excitement



Mt. Everest at an elevation of 5,520 meters. An outdoor advertising effort also saw JYM put up some 2,000 billboards in interior regions.

Meanwhile, another program of training seminars for dealers got under way at the JYM headquarters in Chongqing, with a total of some 500 dealers attending in 12 holdings. The dealers who completed the seminar all praised it as a very meaningful form of retailing support.

#### An expanding sales network

Before the launch of the YBR125, JYM had a network of about 500 dealerships around China, most of which were concentrated in the higher-income coastal regions. Thanks to the concerted marketing efforts that followed the introduction of the YBR, however, that number grew steadily. JYM had set a target of 1,000 dealerships by the end of 2003, but the results far exceeded this target and today the company boasts a sales network of roughly 1,800 dealers.

#### Looking to the future

Thanks to these efforts by the people of JYM, the YBR now holds a solid position in the Chinese motorcycle market. However, due to their specifications and prices of the products, Yamaha motorcycles have yet to penetrate the vast rural market of the Chinese interior with its 900 million people. To expand into this high-potential market, JYM



Song and dance act accompanied the YBR event

now has plans in the works to launch new products that can be competitive in the rural areas.

Based on a philosophy that "Quality products require quality marketing," JYM is dedicated as a company to pursuing a strategy of high quality market launches of products developed to meet users needs that will differentiate us from the competition and build a stronger Yamaha presence in the Chinese market.



3,000 Yamaha billboards have gone up in new markets in the Chinese interior, like this one in Mao Zedong's hometown in Hunan province

# EXPRESS Yamaha Power Unleashed!

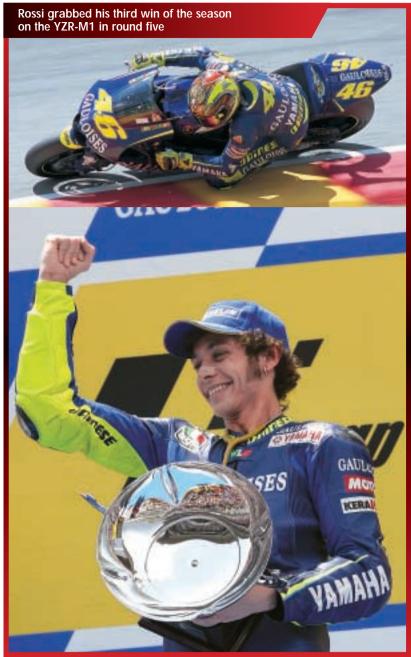
Chad Reed won the AMA Supercross title, and since May he is competing in the motocross Nationals

RACING



Stefan Everts is on his way to a second consecutive title





Goorbergh is hot on the YZF-R6 in the WSS



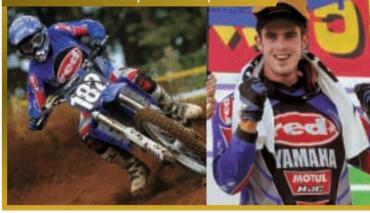
# **From MotoGP to Stock Races**





De Jagar raced in Japan with support from South Africa's YDSA and won in the all Japan motocross premier class

The Yamaha GMT 94 team won the Zhuhai (China) round of the World Endurance Championship



In early May, Chad Reed grabbed the AMA Supercross title in the pinnacle 250cc class, bringing Yamaha its first 250cc class title in four years. This big title seemed to ignite a chain reaction, as Yamaha riders around the world scored one win after another.

In April, Valentino Rossi had already gotten the MotoGP season off to a propitious start for Yamaha with a win in the opener in South Africa. Motor sports journalists exalted to see a revival of the Yamaha-Honda rivalry after last year's Honda dominated season. In fact, as of the Catalonia GP, Rossi and his YZR-M1 have won three of the first five rounds of the series. What's more, following the winner Rossi at Catalonia in 3rd and 4th places were M1 riders Marco Melandri and Carlos Checa, proving that this year's Yamaha wins are no fluke. (For the technological side of this Yamaha ascendance, see the What's New page of this issue.)

Yamaha is also leading the pack in world championship motocross, where Stefan Everts is running strong toward his second consecutive title in the premier MX1 class on his 4-stroke YZ450FM. This year's WMX has returned to a two-heat format that is more demanding on the riders. Still, Everts has managed to win 10 of the 18 heats in the first nine rounds for a point total of over 400, which gives him a healthy 100-point lead 2nd ranked J. Coppins (Honda 4-stroke).

Meanwhile, in stock-model road racing, competitors are scoring big wins on the YZF-R6 in the World Supersport Championship (WSS). In round one, the Yamaha Motor Italy team's Jurgen van den Goorbergh took the win and in round six it went to teammate Fabien Foret, and with the exception of round five, Yamaha riders have mounted the podium in every race. At the end of round six, Goorbergh has racked up 92 points, just 15 points behind the leader, K. Muggeridge (Honda).

The new YZF-R1 is also showing its speed at the hands of Gianluca Vizziello, who has won four of the first six rounds of the European Superstock championship to top the ranking. What's more, the next three riders in the ranking also ride the R1, and with just three rounds remaining it looks like this trend will hold.

The YZF-R1 is also hot in the FIM World

Endurance Championship, where the Yamaha GMT 94 team came from behind in round two to win the Zhuhai 6-hour, the first championship motorcycle race ever held in China. Second place finishes in the other two rounds held so far have given them a slight series lead over their Suzuki Team rivals. Round four will be held at Japan's Suzuka circuit in late July.

In the USA too, the R1 is the machine to beat in AMA Superstock, where A. Gobert and J. Hacking stand 1-2 in the series ranking after round six. These same two riders also stand 2-3 in the Supersport class riding the YZF-R6.

And the victory reports keep coming in. In the first week of June, South African Jarret De Jagar visited Japan to take part in the All Japan Motocross Championships and scored a runaway victory on the YZ250F in the 125cc class. The next week, an Australian rider, Andrew McFarlane won both heats in the MX2 class of round nine of the world motorcross championships, the Italian GP, riding the YZ250FM. With new heroes like these emerging, there is new excitement every week on this season's race scene.

**EXPRESS** 



#### **The Netherlands**

#### Yamaha presents Aerox Race Replica to Valentino Rossi

n the 2nd of May, Yamaha Motor Europe N.V.'s President Inumaru visited the Jerez circuit in Spain to watch round 2 of the MotoGP series and to visit defending MotoGP champion Valentino Rossi in the Gauloises Fortuna Yamaha pit box. The purpose of Mr. Inumaru's visit on the morning of the race was to present Valentino with a personal model of the new Aerox Race Replica scooter that went on sale in Europe in May. This attractively designed scooter in Rossi's race colors is targeted at the young European race fans, and from the day it arrived in the dealer shops, sales have been very successful.

Rossi will use this first Aerox Rossi model as his official paddock scoot-

#### Mexico

#### "X-Touring Yamaha" event proves toughness of Yamaha ATVs



ver the two days of April 8 and 9, a group of hard-core ATV enthusiasts covered some 334 km of rugged terrain that only an ATV could possibly traverse. This was the third of a popular new series of "X-Touring Yamaha" events organized by Yamaha Motor de México S.A. De C.V. (YMMEX). This event, which toured from Coatzacoalcos to Catemaco in the state of

One of the Kodiaks fell from a boat into the river and floated upside for 13 min. But 40 min. later it was running perfectly again

Veracruz, was organized with the help of distributor Fernando Echazarreta of southern Veracruz. In the ambitious first stage of the tour the participants ran for 20 hours over trails and dunes, across rivers, mud and marshes, with the last 43 km being run through jungles at night depending only on GPS without a predetermined route. After a night of camping, another 150 km of somewhat easier terrain was covered on day two. What impressed the participants particularly was the toughness and power of the Yamaha Bruin 350 model, which kept pace with the bigger Yamaha Kodiak 450 models. There was even a case when a Bruin pulled a Kodiak out of a deep marsh with the help of a winch.

Besides the 334 km of the "X-Touring Yamaha," YMMEX staff put the Bruin 350 through 1,500 km of tests in extreme use in high mountains and volcanic zones, successfully proving its great durability, handling capability and power. Readers can find more information and images of these tough X-Touring Yamaha events at the YMMEX website at http://www.yamaha-motor.com.mx.

From Magdalena Flores, YMMEX, Mexico



Rossi and YMENV President Inumaru with the Aerox Race Replica

er during all the MotoGP races this season. Readers can see the Aerox Race Replica at http://www.yamaharacing.com/aerox. *From Renzo Moscou, YMENV, the Netherlands* 

#### Taiwan YSP dealership program launched in Taiwan

**O** n April 8, a ceremony was held in the city of Tai Chong in central Taiwan to commemorate the launch of a new "YSP" (Yamaha Super Plaza) motorcycle dealership program that Yamaha Motor Taiwan Co., Ltd. (YMT) is promoting throughout the island. Despite the fact that Taiwan is said to have the highest per capita scooter ownership rate in the world, two-wheelers have continued to be sold through small shops run in the traditional style that hasn't changed for decades. YMT has launched the YSP dealership program in order to differentiate itself as the first maker to implement an integrated dealership program designed to guarantee the highest level of customer service. The program begins with a total of 60 YSP shops around the island and plans to increase that number as more shops meet the high YSP service and business standards.

The grand launch ceremony, held at the newly opened YSP Hai Niao shop was attended by some 200 people, including the owners of the first 60 YSP-designated shops, representatives of the public sector including the Mayor of Tai Chong, Mr. Hu Zi Qiang, and members of the press. After hearing the "Five Promises" of the YSP code guaranteeing customers

Trust, Speed, Convenience, Consideration and Fairness, journalists were heard to comment that the Taiwanese 2-wheeler market has now entered an new age where the brands must now quality of service market share. *From Katsuhiko Honmaru*, *YMT*, *Taiwan* 



In the first stage of the YSP program, 60 dealers have won YSP designation

#### Sudan New headquarters, new start for Golden Arrow

n March 10, a ceremony was held to celebrate the opening of the new corporate headquarters and showrooms of the Yamaha distributor for Sudan, Golden Arrow Co., Ltd. A tape cutting ceremony was held at one of the company's new showrooms located in a commercial district of the capital, Khartoum. The new company headquarters is also located in Khartoum on a street that happens to bear the same name as the company. Sudan boasts the largest land area of any country in Africa, and in his speech at the opening ceremony, Golden Arrow's Managing Director, Mr. Abdu M.A.M. Abdalla declared his determination to significantly expand sales of Yamaha products in this vast market. Attending the ceremony on behalf of the government was the Vice President and Chairperson of the Coordination Council for Southern Sudan, Dr. Reyak Guy. Yamaha was represented by OMDO Senior General Manager Shibata. It was clear that the opening of this new facility marks a new start with big expectations for Yamaha business in Sudan.

From Michiru Wajima, OMDO, YMC



Sudan's Vice President Guy (center) joined in the tape cutting with Golden Arrow Chairman, Mr. Mamoun A.M. Abdalla (to left of Dr. Guy) and OMDO's Shibata (right of Dr. Guy)

#### South Korea HMT opens first direct retail shop in Seoul



The staff of YSK Seoul will play an important role in user communication and service

n April 5, Yamaha distributor in South Korea, Hankook Motor Trading Co., Ltd., opened its first Yamaha direct retail shop, named Yamaha Sports Korea (YSK) Seoul-Kangnam. Located in the South section of Seoul, which until now has been the location primarily of motorcycle shops selling a wide range of imported models, this Yamaha direct retail shop has quickly become the center of industry attention because of its focus on customer communication functions and full-ranging service program. The new YSK Seoul-Kangnam will undoubtedly serve as an important center for the dissemination of user-oriented information.

HMT followed up on April 17 and 18 with a circuit riding school for its YZF-R1 and R6 customers and race participants at the Taebaek Circuit in Kangwon-do. Blessed with fine weather on both days, 36 enthusiastic participants gathered to receive instruction from former All-Japan 500cc star and present YMC development rider Norihiko Fujiwara and Japanese privateer team manager Yasuaki Fujimoto. After the successful completion of this school, there were immediately requests for more holdings in the near future.

500km

From Masahiko Arika, MC operations, YMC

# PWC tour covers 1,100 km from Jakarta to Singapore

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n April 7, an intrepid group of 15 personal watercraft enthusiasts set out from the Indonesian capital, Jakarta, on what would be an adventurous five days of coast and island hopping north to Singapore. This "Water Cross Touring 2004" event was organized by the Indonesia Jet Sports Association, led by Mr. Fully Aswar and Mr. Jusli, to give PWC enthusiasts a chance to experience international long-distance adventure touring. The participants included nine Yamaha SUV 1200 owners, three FX140 owners and three owners of other



All participants who joined the "Water Cross Touring 2004"

makes. They were accompanied by two Yamaha powered cruisers carrying a support crew including two doctors, five mechanics, a TV film crew and security staff.

In all, the 1,100-km course was covered in 31 hours of riding over five days with all the Yamaha PWCs finishing successfully with no breakdowns. The proud participants were greeted on their arrival in Singapore on April 11 by Mr. Justin Lee, president of the Singapore Powerboat Association.

Everyone involved appreciated the experience and plans are already being made for the next tour event to run from Jakarta to Pattaya in Thailand later this year.

From Ronald Leman, KG Marine, Indonesia

AKARTA

SINGAPORE

#### Malaysia

# Launch of new model "eGO" follows "Lagenda 110" success

n March 31, Malaysian distributor, Hong Leong Yamaha Distributors Sdn Bhd (HLYD) organized a gala press and dealer launch for the new 115cc automatic transmission scooter model "eGO." Some 300 industry guests and reporters and film crews from 23 media companies gathered at the Sunway Lagoon Resort Hotel in Kuala Lumpur. After an introductory speech by HLYD's COO, Mr. Ng Choong Hai, Senior General Manager Nick Ohmura of Yamaha's regional business center, gave an impressive account of the success of the new model so far in other ASEAN markets. With interest growing in Malaysia today for automatic model scooters like the

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new eGO, this is considered a very timely launch. It was clear from the enthusiastic responses of everyone present that expectations are high for a new model of this type and size. Following the recently successful launch of the moped type Lagenda 110, Yamaha's position in the Malaysian market has been considerably strengthened.



From Ryohei Nakata, MC operations, YMC

With demand growing for automatic-transmission scooters in Malaysia, the eGO's launch is a timely

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## ATV owners instructed in YRA program



Lebanese ATV owners appreciated the professional instruction in proper riding practices

n early April, the Yamaha motorcycle distributor in Lebanon, Salah Eddine Itani Est., organized a Yamaha Riding Academy (YRA) event for its ATV customers in cooperation with the Yamaha Motor Sports Promotion Division for the first time. With snow still remaining in the mountain areas where ATV use is popular, a course was set up in an empty lot in Beirut for the YRA ATV riding course. Some 22 ATV owners gathered to receive instruction in proper riding practices and technique. Some of the participants came as families and the smiles of parents practicing together to master the techniques were truly gratifying. In the Lebanese market utility models like the Grizzly and Kodiak are the main sellers and are often outfitted for touring. From now, Salah Eddine Itani plans to train instructors and will continue to educate people in sound riding technique. *From Masahiko Arika, MC operations, YMC* 

#### Australia

# Yamaha bikes and riders dominate A4DE!

amaha riders dominated the medals in spectacular fashion at the Yamaha Wild Dog 2004 Australian Four Day Enduro Championships that ran from April 15 to 18 at Warragul, Victoria. Ballard's Yamaha Motorex Team enjoyed its most successful championship to date with five Australian titles, a feat that put Yamaha on course for impressive event statistics.

The highlight was Glenn Kearney, who rode his YZ250WR brilliantly to win his first outright Australian Enduro Championship along with the Over 200cc 2-stroke class title. Damian Smith (WR250F) continued Yamaha's domination of the 250cc 4-stroke class, taking a convincing class win and fourth outright at his first attempt on the small bore 4-stroke. Team manager Geoff Ballard (WR250F) added yet another page to his enduro legend by blitzing his competition over the last three days to easily wrap up the Over 35's class Championship. He also won the all-important final motocross ahead of a fleet of much larger capacity machines. The Over 45 category was also won by a Yamaha WR250F, this time piloted by Rob Haskins. The irrepressible Ballard's Yamaha Motorex Racing Team also won the Trade Team event, which was represented by Kearney, Smith and Jason Cater.

Yamaha Motor Australia Pty., Ltd. (YMA) will continue to support race events like this because in the sports-oriented Australian market it has been proved time and again that the machines that win on Sunday are

From Sean Hawker, YMA, Australia

the ones that sell on Monday.

Outright winner Glenn Kearney was the star of the 2004 Australian Four Day Enduro Championships on his YZ250WR

Photo taken by Colin Chan

Japan

#### Service seminar held for 2004 new models

ver the four days from April 20 to 23, a group of 32 Yamaha service managers gathered at the newly

ME Company service theme of increasing customer satisfaction and becoming No. 1 in reliability through an integrated program of "products and service as one."

outfitted CR Service Training Center of Yamaha's ME Company in Iwata to receive service

training for the new models being released this year. The participants came from all Yamaha marine divisions.

In addition to comprehensive instruction in service technology for the new 2004 outboard motors and WaveRunners, the international participants joined in productive discussions about putting into effect the

■YAMAHA

The participating service managers will now be responsible for the important job of disseminating new-model service information in their respective countries to ensure smooth product launches. From Hideaki Kuno, CR Service Dept., ME Company, YMC

Service managers and staff at the 2004 model service seminal

#### Hong Kong

#### First new model intro draws strong response

n May 16, a special new model introduction event was held at Yamaha distributor Man Lee Tat in Hong Kong. Five YMC-manufactured large-displacement motorcycles and two types of scooters manufactured by Yamaha Motor Taiwan Co., Ltd. were unveiled on that day. It was also announced that Yamaha is truly making a commitment to grow its share

and build customer satisfaction in Hong Kong. This was the first event ever held in Hong Kong to introduce new models, but about 80 guests (the press and representatives from dealerships in H.K. and Macau) showed intense interest as they questioned the Yamaha staff about the new models. Many also expressed their impression that they can expect more from Yamaha in the future. Popular actress Yo-Yo further livened up the event. The following week, Man Lee Tat reported a flood of orders and inquiries about the new models. From Yukari Fujishiro, YMC



At the Man Lee Tat new model introduction event



Customers test rode 2005 models like the 4-stroke RX-1 Mountain and RSVector Mountain in ideal mountain conditions

Mountain, RSVector Mountain, and SXViper Mountain performed flawlessly for over 200 enthusiastic riders looking to appreciate the Yamaha riding experience in the toughest conditions. From Peter Swanton, YMCA, Canada

#### Canada 2005 Snowmobile "Mile High **Customer Intro**"

ith a dynamic new lineup of 2005 Yamaha mountain snowmobiles Yamaha Motor Canada Ltd. (YMCA) decided that the opportunity to demonstrate the ability of these class-leading models was needed where they show best, "on the mountain."

Three weekend events were held though March and April 2004, at major consumer riding areas in British Columbia (Western Canada), at elevations of 500 to 2,500 meters.

Yamaha dealers had special "VIP" invitations sent to leading mountain club enthusiasts to ride the new 2005 models in snow conditions measuring up to three meters in depth. The 2005 RX-1

The scenic test-ride venues were at elevations up to 2,500 meters

### **Smooth production** start for new Vino

Taiwan

he first units of the 2004 model of Yamaha's popular retro fashion scooter "Vino" went on sale on March 29. Having undergone a complete model change

for 2004, the new Vino went into production at the Yamaha Motor Taiwan Co., Ltd. (YMT) factory, where the production team successfully reached their initial goal of 98% uninterrupted assembly completion rate. In efforts



The second eye of the Dharma figure is painted in by Mr. Akira Araki, representing YMC, to symbolize the success of the new Vino production

to achieve the world's highest level of manufacturing quality, YMT has been aggressively upgrading its expertise in manufacturing technology and quality control systems that identify problems and root them out with optimum speed and efficiency. This time YMT and its R&D branch Yamaha Motor R&D Taiwan Co., Ltd. worked together with the various SyS system supplier organizations and YMC's 1st Iwata Factory to achieve a smooth production start and realize their goal of 98% uninterrupted completion rate soon after the first lot. Everyone involved was duly proud of this success. From Yoshihiro Akahori, YMT, Taiwan

#### Customer presented key for "First Edition" R1, No. 1

he arrival of the fully redesigned 2004 YZF-R1 has been a long-awaited event for motorcycle lovers in Italy, and Yamaha Motor Italia S. P. A. (YMIT) has prepared a lot of 1,000 units of the 2004 R1 each mounting a special serial number designating its place in the "R1 First Edition." On March 20, a ceremony was held to present the key for the serial No. 1 machine of this edition to its owner at a dealership in the city of Parma named Moto Shop. The serial number of the machine each new owner receives was decided by the order in which their orders were received, and the lucky first customer is a man who placed his order back in August 2003, long before the official press introduction of the 2004 R1 last autumn. The owner of Moto Shop, Mr. Buratti, his staff and representatives of YMIT prepared a special plaque to present to the No. 1 and No. 999 machine customers, symbolizing the size of the 1,000 unit lot of the long-anticipated new R1. The key presenting ceremony also included a dinner and a disco event that attracted many young people along with a large



group of excited owners come to pick up their R1s. *From Tatsushi Kasai, YMIT, Italy* 

From right, the first customer, Moto Shop's owner, Mr. Buratti and YMIT staff, Mr. Murata

Mexico

# Grand 30th birthday celebration for IMEMSA

ince 1974, when it was founded to distribute Yamaha outboard motors and build FRP fishing boats under a technical assistance agreement with Yamaha Motor Co., Ltd. (YMC), Industria Mexicana De Equipo Marino S.A. De C.V. (IMEMSA) has continued to grow with the Mexican fishery and marine markets. This year, IMEMSA celebrated the 30th anniversary of its founding with a grand ceremony on June 10 attended by some 250 people. On this occasion, IMEMSA's President Jefferson H. Fuller and the entire staff welcomed guests including dignitaries from the political and business world as well as representatives from the company's dealers and associated businesses. Attending from Japan were YMC's President Toru Hasegawa, ME Company's President Shinya Sato, CR Overseas Marketing Division General Manager Akira Koide and Latin American Group Manager Kazuro Yamaguchi. At the ceremony President Fuller expressed his company's determination to expand Yamaha business in the Mexican market and YMC's President Hasegawa presented IMEMSA with a commemorative gift

of a Japanese samurai helmet and words of congratulations and appreciation for 30 years of achievement. *From Tetsuya Kaneko, Representative in IMEMSA, Mexico* 



YMC's President Hasegawa presents a samural helmet to IMEMSA's president Fuller

France

#### YRT program bonds race enthusiasts to Yamaha brand

he second Yamaha Race Training (YRT) program for R-series racers took place at the Nogaro circuit in France in late March, with 60 riders from ten European countries attending. YRT gives Yamaha the opportunity to work directly with its racing customers and explain how to get the best out of their machines. Riders spent one day in the classroom and three days on the circuit, where they received invaluable guidance

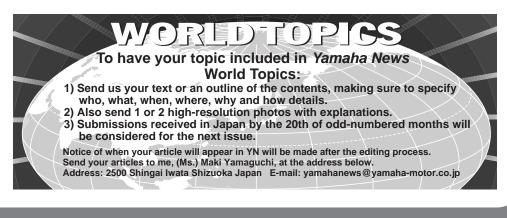


Mr. De Graaf (at front) and Mr. Zeelenberg head the YRT racing school program

from YMC and Yamaha Motor Europe engineers. Attendees also received a service manual and technical guide offering information on suspension, fuel injection and the kit parts themselves. Hosting the event was Yamaha Motor Racing's technical consultant, Mr. Wilco Zeelenberg, who along with Yamaha Motor Europe service engineer, Mr. Marc de Graaf, and Öhlins suspension expert, Mr. Anders Andersson, gave talks on the features of the production YZF-R1 and R6, Yamaha Engineering Corporation kit parts and the art of suspension set-up. Also giving attendees the benefit of their vast experience were four engineers from YMC, headed by Mr. Jiro Izaki.

"The YRT program proved popular when we introduced it in 2003," said Zeelenberg. "This year we made some small changes based on feedback from the previous event. The number of riders choosing to race with Yamahas, especially the new R1, is impressive and it is important that we provide the riders and their mechanics, as well as technical staff at Yamaha's national distributors, with as much technical information as possible on their new bikes."

From Paul Taylor, Yamaha Racing Communications, the Netherlands



#### What's NEW ★ ★ ★

## Update on the MotoGP Machine, YZR-M1

Four Yamaha YZR-M1 machines are competing in this season's MotoGP and as of the conclusion of round five, the Catalonia GP in Spain, the YZR-M1 has won three of the first five races. As the series enters its middle stages, Yamaha News spoke to Mr. Masao Furusawa, who heads the M1 development team, to get up to speed on the changes in this year's machine.

# Q: The MotoGP class is now in its third year. How has the YZR-M1 evolved during this time?

Furusawa: The engine on the 2002 model in the first year of the MotoGP had a 940cc displacement and later the competitiveness was increased with the shift to a 990cc engine. Also, the early frame was actually a development of the YZR500 type frame. We quickly developed a new frame specifically for the M1 and have been working towards a more mature unit since then.

In 2003 we adopted fuel injection on the M1 and began refining the engine management system. This combined with new frame design elements to help shave a full second off the average lap time compared to the 2002 model, although that progress didn't immediately lead to improved race results at the time. That was mainly because all the MotoGP competitors were evolving so quickly.

In order to make an even bigger improvement in 2004, we tried a number of different engine-frame combinations during the pre-season tests and gradually refined these into a new race machine.

## Q: Will you first of all tell us about this year's engine?

Furusawa: One of the spec changes is the firing order. The 2003 M1 had a firing order of 1, 2, 4 and 3 with a regular firing interval. The 2004 engine has a firing order of 1, 3, 2 and 4 with an irregular firing interval. That's why you can hear a low tone harmony in the new engine's exhaust sound compared to the single-note sound

up through the 2003 model.

Another thing we did was to optimize the combustion interval to give the best traction in response to throttle action. Rossi calls this a "sweet" engine, but we still have to keep developing it as the season progresses.

#### Q: How about the frame?

Furusawa: We reduced the lateral rigidity of the frame and also lowered the rear arm's center of gravity. This improves the balance with the suspension function when leaning the bike deeply through the turns. And, we lengthened the wheelbase by 20mm and moved the relative position of the engine farther forward. This gave a slight increase in weight distribution toward the front wheel for a better front stability. This is a design that brings out the best of the in-line-4 engine layout while also contributing to handling and stability.

## Q: What advantages have been gained through these changes?

Furusawa: The results are that this year's machine can go into the turns faster and you can take it into a deeper lean than last year's machine. These advantages have contributed to our early-season wins this year.

Q: What are your development goals for the remainder of the season?

Furusawa: Our themes are increasing engine power and getting even more stability in machine motion during turns. The directions for maturation are "predictability" and "drivability." Predictability means the information the machine feeds back to the rider. The weight of a M o t o G P machine is approximately 145 kg, or only



YZR-M1 development chief, Mr. Furusawa

about twice the weight of the rider. Because the rider is shifting his body weight in all directions as the races, this feedback is vital. While computer-controlled functions like engine-brake control and traction control are increasing, there are also ways that the rider controls the machine directly. We are now working to make more rider-friendly control areas.

### Q: What are your hopes for the riders and the series results?

Furusawa: Rossi has a great talent for riding relaxed, enjoying the race and adjusting his riding style to the machine's characteristics. These talents are also making the bike faster, I believe. Jeremy Burgess, who came to the team with Rossi is also making a significant contribution.

All our riders have great potential; Checa with his steady, serious approach, Melandri with his aggressive riding style and Abe, who is getting more used to the machine with every race. I hope everyone will cheer for us as we work to regain the title for Yamaha.



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## A 3rd dimension of dynamic performance The "Tricker," it's a whole new breed of motorcycle

he XG250 "Tricker" is a brand new product that was first unveiled at the 2003 Tokyo Motor Show and goes on sale beginning in Japan this year. Motorcycle fans everywhere are already checking out the Tricker as a machine with an exciting new look that conjures up images of "extreme sports" like surfing, snowboarding and BMX trick riding, where dynamic body action is the key to performance. But, it's not only the look. A Japanese motor journalist who rode the Tricker says, "Riding this machine brought back that the thrill of that day when, as a child, I first learned to ride a bicycle." Even one of Yamaha's MotoGP riders keeps his own Tricker for riding around the paddock at the race circuits. He says, "It has a fresh look, and

you can ride it anywhere, from around town to forest trails. Of course, you can use it for just getting around, but it's also a bike you can really play with."

Driving that performance is an aircooled, 250cc, SOHC, single cylinder engine with a broad torque range and plenty of pick-up. And its light and nimble ride draws from a new-design lightweight frame, 19-inch front and 16-inch rear wheels with special-pattern tires on a YZ85 motocrosser size chassis with a thin-design fuel tank, a simple seat offering a slim riding position with plenty of freedom in riding style, plus an extra large handlebar turning angle. Of course, the cool appearance is another reason why it appeals to bike fans.

To generate a fresh but familiar look, the designers incorporated elements from

products like sneakers, MDs and portable CD players to convey the convenience of hand-held devices that fit in as expressive parts of young people's lifestyles.

One of the designers says, "We had to break out of the conventional straightline image of the motorcycle's line from the head pipe back through the seat. To do that, we looked at the aggressive vertical motion seen in extreme sports and expressed that image by angling the seat to look like it is sticking into the fuel tank and then grouping that with the engine in a way that implies vertical thrust."

The Tricker's slim fuel tank employs a new construction that was key to achieving the overall slimness of the machine and the sense of dynamic vertical motion central to the original product concept.



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