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YAMAHA NEWS

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Yamaha Announces Racing Plan for '74; Pursuit of the Ultimate in Motorcycle Technology; Utilizing All Race-Bred Technical Data for Production Models



Powerful Factory Teams

Along with the established racing plan, Yamaha will enter the factory teams for the world GP road racing and moto-cross championships, respectively. Also, some selected events of the Formula 750 racing in Europe and America will be covered by the works riders of Yamaha. In addition, ex-champion Mick Andrews of Great Britain will contest all rounds of this year's FIM Observation Trials Championship series.

Agostini Will Spearhead Yamaha's Onslaught

Giacomo Agostini, 13-time world champion will spearhead Yamaha's powerful onslaught of road racing. He is to team with Japanese ace Hideo Kanaya to contest all rounds of the 350cc and 500cc world championships and also some selected events of Formula 750 racing in Europe and America.

Yamaha announced its largest-ever scale racing plan for '74, covering the fields of road racing, moto-cross and trials both here and abroad. Yamaha took this decision, basing on the prospects that sport activities would offer very important testing grounds for the improvement or development of products, thus enabling Yamaha to manufacture the commodities of better quality and higher performance for consumers around the world; the Yamaha could make its policy "expansion and promotion of healthy motorcycle sport" widely known to the public through active sport activities.

Aiming for Championships! Agostini Tries Out New Racing Machines



It is still fresh to our memory that Italian hero Agostini's new partnership with Yamaha was announced approx. three months ago as a world-wide shocking news.

Again, tremendous interest focussed on this racing giant early in February when he started a full test session on Yamaha's new racing machines including the brand-new TZ 750 at the Yamaha Course at Fukuroi near Yamaha Main Factory.

An open test run was given for a lot of Japanese motor journalists who wished to witness the fabulous combination of Agostini and Yamaha for the first time.

Dream Comes True



Ago and Yamaha—it was a long-dreamt combination. The dream came just true at the Yamaha Course. His first outing on a Yamaha machine tremendously thrilled and excited all present.

Agostini tried out new machines one after another accompanied by Japanese top class riders including Kanaya, Akiyasu Motohashi, Takazumi Katayama, etc. all on similar machines.

Agostini demonstrated his wonderful racing techniques to everyone's heart content—dynamic acceleration on stretches and strikingly skillful cornering—all backed by his most brilliant experience of the world GP racing.

Of all, the keenest attention was attracted to the race-fitted TZ 750. The prototype of this model had been unveiled at the 2nd Yamaha Grand Sports Festival in August, followed by the introduction of the original production model at the Tokyo Motor Show in October the previous year.

The 2-stroke, water-cooled leaning-forward in-line 4 cylinders! Top speed was hit at

265km or more, and peak power was developed up to 90ps at 10,000 rpm. The race-bred 6-speed transmission was positively one of the advantages for this machine, too. A new, formidable weapon for



Yamaha demonstrating its hectic resolution, for the largest displacement class of road racing this year.

Agostini piloted this machine in a flawless manner over the 5.245-km Yamaha Course, thus convincingly impressing all present with "Ago and Yamaha are an invincible combination".

No Longer Problem

An open test run ended in a big success. "I am quite satisfied with test results", said Agostini, answering questions by Japanese journalists, "I think, switch from a 4-stroke MV to a 2-stroke Yamaha is no longer a problem for me". "Kanaya will be a very good teammate for me and I will try my best to clinch the titles for Yamaha and for myself as well".



Other Yamaha Riders

In line with Yamaha Factory's active racing plan, distributors in Europe will enter their riders and machines for this year's championship series as follows:

Mitsui(West Germany): Dieter Braun for 250cc and 500cc classes as well as Formula 750. Where possible, he will also contest 350cc class.

Hostettler(Switzerland): Bruno Kneubuehler for 125cc and 250cc classes as well as Formula 750.

Jamoto(Austria): John Dodds for 250cc or 350cc and 500cc classes as well as Formula 750.

Danfay(Ireland): Charles Mortimer for 250cc and 350cc classes as well as Formula 750.

Italjet(Italy): Water Villa for 250cc and 350cc classes as well as Italian championships and Formula 750.

Hallman Eneqvist(Sweden): Kent Andersson for 125cc and/or 350cc classes.

Arwidson(Finland): Teuvo Lansivuori for 250cc and 350cc classes as well as Formula 750.

Also, Ken Roberts, Don Castro and Gene Romero all under contract with the Yamaha International Corporation will take part in major road race events in the United States. Takazumi Katayama, national champion of Japan, is also to participate in some selected championship events in Europe as a member of Yamaha factory team.



Kent Andersson



Ken Roberts



Takazumi Katayama

Yamaha Technical School Opens



Along with the progressive spread of motorization, customers tend to need higher and more specialized knowledge of their own motorcycles. On the other hand, general environmental conditions also urge manufacturers to manufacture and market the commodities of better quality and higher performance. With such a trend for a background, Yamaha started the promotion of nationwide technical school program in March in cooperation with all distributors and dealers concerned.

The program is designed to have mechanics acquire correct, comprehensive knowledge of maintenance and service for Yamaha motorcycles. They will in turn teach their customers correct and more advanced technical know-how of periodic maintenance for Yamaha motorcycles. All distributors and dealers of Yamaha are eager to support this program, as improved technical knowledge on the side of customers will cultivate a better understanding of Yamaha motorcycles, which will eventually lead to further sales promotion.

Three-Course Sessions

The technical school has the three different courses, namely, M course for the V and business models, RD course for the 2-stroke twin sport models and TX course for the 4-stroke twin sport models. Each session is given for 3 days and mechanics working for dealers or distributors can learn the functional mechanism of every component, practicable servicing and correct use of various tools and machines under the guidance of Yamaha-appointed instructors.



"The Ultimate in Design and Performance", Says Mr. Tilkens, Cantilever System Inventor



Mr. Lucien Tilkens, ex-professor of the Liege Engineering College, Belgium, whose name is well known to the international racing circles as the inventor of revolutionary cantilever rear suspension system for motorcycles, recently visited Yamaha accompanied by his son Guy working for Yamaha Motor N.V. as one of the technical staff. His main objectives were to investigate how the Mono-Cross would work when mounted on the production models YZ 250 and YZ 360, and to make a trip around the Yamaha Industrial Group.

Serving as a technical advisor to Yamaha Motor N.V. in Amsterdam, Mr. Tilkens is expected to further contribute to the improvement of Yamaha's technology.

"Yamaha has perfected my cantilever rear suspension system into the unique Mono-Cross", said he at a press conference attended by the Technical and AD & PR personnel of Yamaha, "I congratulate Yamaha for winning the '73 title, and feel it very happy to know the Mono-Cross perform very well. I believe the Mono Cross is the ultimate in design and performance".

More improved



"I personally witnessed Hakan Andersson expertly piloting his new weapon to victory at the Belgian 250cc MX GP last year. As for the 250cc class, Yamaha was unsurpassed right from the beginning. In the 500cc class series, Swede ace Ake Jonsson was felt somewhat embarrassed with this entirely-new rear suspension system during the opening stages of the title contest. But, as he became accustomed to it, Jonsson also displayed his impressive skills during the latter half stages

of the series. Especially, much to our joy, he won the Luxembourg and Dutch rounds in succession, demonstrating the outstanding performance of the Mono-Cross. He is expected to make his stronger bid for the 500cc title this year, riding the improved Mono-Cross-fitted machine.

Idea comes to his mind six years ago

"I have long been greatly interested in motorcycle sport, especially, moto-cross competition", continued Mr. Tilkens, "Some six years ago I happened to watch Silvane Gebores, my countryman who rode a CZ machine in those days, win a local race. I just addressed him, asking him how he rode the machine in the race. In reply to it, Gebores told me that the CZ machine's peak power was felt too much for the circuit and it sometimes became even uncontrollable. Then, came to my mind an idea that the

conventional swing arm rear suspension system could be replaced by some other improved system so as to elevate a machine's overall cruising reliability on a bumpy moto-cross track.

From then on, my efforts focussed on the development of entirely-new rear suspension to take over the place of conventional-type one. My first and rather primitive experimentation was that a spring was removed from the swing arm unit at one side.

My son Guy rode this machine in a local race which was held early in 1972. He did not achieve any impressive results in this race, eventually. But, my research made a remarkable progress during the next few months.

It was in April, 1972 that the first cantilever rear suspension system-fitted machine made a debut in a national race of Belgium. Ridden by Guy, this strange-looking machine finished overall 5th, attracting tremendous attention from all concerned with racing. Especially, the machine showed a very satisfactory grip and reliability on a sandy circuit with little side sways, thus enabling a rider to smoother and faster negotiate various terrain conditions, just as had been expected by myself.

This interested even top class foreign riders including Heiki Mikkola of Finland."

Principle of inert gas

"My cushion unit incorporates inert gas air, oil. Their combined function results in improved cushioning efficiency by making oil pressure just fit shocks and impacts of varying degrees at all times.

The idea of using inert gas as cushioning means just came to my mind when I watched a cleaning machine spout water at a constant pressure by utilizing inert gas in its inner mechanism.

My race-proven cantilever rear suspension system utilizing inert gas interested a couple of Japanese manufacturers almost at the same time, namely, Suzuki and Yamaha. But, they reacted quite differently from each other. That's to say, Suzuki became much less interested in it after having tested it. On the contrary, Yamaha was eager enough to sign a contract with me immediately after tests.

Then, Yamaha's excellent technology perfected it into the Mono-Cross within an amazingly short time".

Yamaha Mono-Cross Arouses Fresh Sensation



Yamaha's unique cantilever rear suspension system designated "Moto-Cross", the performance of which was already proven excellent with Yamaha's world GP-winning works motocrosser ridden by Hakan Andersson, aroused a fresh, world-wide sensation when this system-equipped works trials machine made its debut at the Hurst Cup Trial held in Northern Ireland, in succession to the introduction of the Mono-Cross-fitted production models YZ 250 and YZ 360 on the market.

As separately reported on this issue, Yamaha's new machine piloted by Mick Andrews displayed a very reliable performance, negotiating tricky, punishing observed sections quicker and smoother. The Mono-Cross unit mounted on Mick's new machine has been developed from that for the motocrosser, of course.

It has been designed somewhat slimmer than that for the motocrosser, basing on Mick's advice and recommendation, but both have the basically same structure.

Simple and Rugged

Regardless of the types, the mechanical structure of the Mono-Cross assembly is very simple. The rear swing arm, unlike any conventional one, is arranged in a unique triangular layout so as to increase lateral rigidity on a bumpy surface. The cushion unit is designed to be placed under the backbone along the tank rails. Also, the foremost part of the cushion unit reaches even the under-seat portion.

This method of layout ensures a larger quantity of oil as well as a larger cushion

stroke, thus enabling a rider to negotiate every type of terrain condition faster and smoother.

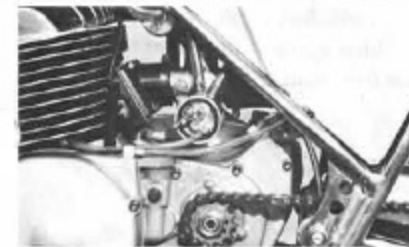
Reliable Riding

The cushion unit in its unique structure is supported at the head pipe featuring higher rigidity and ruggedness than any other parts of frame construction. By this design,

cushion performance is much less vulnerable to frame torsion than any conventional-type cushion unit, thereby checking lateral sways to a minimum. The combined effects of inert gas (nitrogen gas), oil, coil spring and rubber ensure soft and comfortable riding on bumpy surfaces.

Nitrogen gas which is compressed by high pressure minimizes oil cavitation for the sake of improved damping action.

YZT250 Empolys New Fuel Feeding System



Mick Andrews' Mono-Cross-fitted YZT 250 displayed its wonderfully reliable performance at each round of this year's FIM Observation Trials Championship Series.

In an effort to further consolidate its advantages over others in the title contest, Yamaha has adopted the newly developed fuel feeding system for this machine.

The system is designed to deliver a proper quantity of fuel through the function of a diaphragm in the pump by making use of pressure variations in the crank chamber which acts as information control for power source and supply-quantity of fuel.

How it works

1. The fuel flow rate is not affected by the position of the machine. In other words, fuel can be smoothly supplied regardless of topographical ups and downs and severe conditions very common with trials. The highly stabilized engine performance can be obtained, accordingly.
2. Fuel can be smoothly sent to engine at any throttle opening rate, from low to high. High combustion efficiency of the properly mixed and atomized spray fuel enables users to obtain satisfactory response throughout all stages of operation that include delicate opening/closing operation of accelerator at an extremely low speed, thereby allowing more delicate operation.



Mono-Cross Performs Well

—Irish Round

Championship Trials



Mick Andrews of Great Britain expertly piloted his Mono Cross rear suspension-fitted 250 Yamaha at the Hurst Cup Trial, 2nd round of the '74 FIM Observation Trials Championship series held on February 16 near Belfast,

Northern Ireland.

Considering Andrews was only riding in his 2nd top class competition for 3 months this year, he was performing very reliably and consistently. The Irish event had a very tight time limit. The course extending 6 miles had to be covered five times. Each lap had just 20 observed sections. The time given was only three hours with one hour extra in which 0.1 point per minute late was lost.

The sections comprised slippery mud-covered rocks, steep climbs, tree roots and mud. Previous rain had made conditions extremely bad or punishing.

Mick's Yamaha worked very well. It found grip on the greasy sections and spectators showed tremendous interest and admiration for his machine. Mick completed all the laps with only 60 marks lost, finishing 2nd overall, only 7 marks behind eventual winner Rob Edwards on a works Montesa. Mick's performance was felt impressive despite his first outing on the new Yamaha.

Andrews, Best Performance

—Belgian Round

The Belgian Round, the 3rd of this year's series took place on Feb. 24. Although weather was dry, the sections were extremely difficult. Exposed slippery tree roots, adverse cambers, twisty muddy rocks and steep climbs refused any clean going.

Throughout this competition, Andrews' riding was consistent and reliable. A lot of spectators gathered

together to watch this event and admired his wonderful performance on a Mono-Cross-equipped 250 Yamaha.

Malcolm Rathmell and Martin Lampkin, both piloting their works 325 Bultacos proved themselves to be the toughest rivals in this event, but Andrews lost his lead to none throughout this 2-lap competition, and finished 1st with 9-point advantage over runner-up Rathmell.



Final Results

1st	Mick Andrews	Yamaha 250
2nd	Malcolm Rathmell	Bultaco 325
3rd	Martin Lampkin	Bultaco 325
4th	J.M. Lejeune	Montesa 250
5th	Y. Vesterinen	Bultaco 325

Championship Trials Schedule

April 28	France
May 5	Italy
May 18/19	Poland
June 2	West Germany
August 18	Finland
August 25	Sweden
September 22	Czechoslovakia
September 29	Switzerland

YAMAHA OUTBOARD MOTORS

Progressive Motorization on the Water

Colombia

Colombia in South America is divided into two different topographic parts by the Andes, namely, western plain along the coast and eastern highlands. These topographic features inevitably prevent the smooth development of traffic network on the land. But, on the other hand, rich inland waters throughout the country have long provided very good means of traffic for people.

An increasing number of lightweight Yamaha outboard motors have continued to join the scenes since Eduardono e Hijos in Medellin obtained the distributorship for Yamaha outboard motors last year. Here pictured is a ferry boat powered by a 25hp Yamaha, carrying 23 passengers abroad safely and quickly.



Mexico

The Government of Mexico is very much eager to promote its coastal fisheries as part of the national industry encouragement program. Industria Mexicana de Equipo Marino which was established in Mexico City in May '73 under technical and capital tie-up with Yamaha, is now making great contributions to this program by turning out the F.R.P fishing boats of high quality in large quantities.

Also, they are acting as distributors for 8hp, 15hp and 25hp outboard motor models of Yamaha which are fast winning high popularity among fishermen in this country, they always ensure larger catches of fish than ever before.



Looking Forward

An increasing number of Yamaha outboard motors are now fast rising to popularity across the world for business and for recreation on the water. We are always looking forward to having various news and information of Yamaha outboard motors in your own areas. Thanking in anticipation for your aid and cooperation, we remain.

Oyster Farming

Farming on the water is also one of the mainstay shallow-sea fisheries in Japan. In recent years it has grown remarkably larger in scale accompanied by improved work efficiency and increased income since Yamaha's lightweight outboard motors were induced.

The Sado Island on the Japan Sea has long been famous for large-scale oyster farming.



April through October

The farming ground is 100-200m off the shore and 8m deep. The season is from April through October each year.

The fisherman's boats powered by 5-15ps outboard motors are lightly planing through culture beds. According to most of fishermen in this district, takings have increased by far since they began to use Yamaha outboard motors.



Net Dragging

Crab catching by dragging net is brisk around the Oarai Beach, Ibaragi-ken, some 60 miles north of Tokyo. The 3.5 - 6m fisherman's boats equipped with 5 - 25ps outboard motors smoothly and quickly move around, performing net operations at fishing areas about 1,000 - 1,500m off the shore and 5 - 20m deep. The reason is from January through June each year.

Bumper Catch!

Each day's operations ensure a larger catch of crab than before thanks to the adoption of Yamaha outboard motors which display their dependable performance for the sake of improved work efficiency and time/labour saving. All catches are kept fresh or canned for transportation to nearby cities and Tokyo by train or truck.



Pearl Oyster Farming

Yamaha outboard motors are making much contributions to yielding much more pearls which are winning a world-wide fame for their excellent quality.

The Bay of Ago, Western Japan is one of the best farming grounds for pearl oysters. The farming ground is arranged along the seashore and 5 - 10m deep. Operations can be performed for the period from April through October each year.

Woman Divers

Also, woman divers are seen to repeat their energetic diving operations for abalone or turbo catching, assisted by their husbands aboard. Small boats powered by Yamaha outboard motors quickly become brimful of catches.

CONTRIBUTIONS INVITED

Just send us pictures you've taken of stories, interesting happenings or extraordinary incidences-anything if it's about YAMAHA. A commemorative gift will be sent to those subscribers whose pictures are accepted for publication.

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