



YAMAHA NEWS

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No. 8

Yamaha Trial TY250



Technical features of TY250

Yamaha will shortly introduce the new trials model 'Yamaha Trial TY 250' for sale here and abroad. The model has been designed and engineered overall basing on suggestions and advices by reigning European champion Mick Andrews who is riding the works machine in each round of the '73 European trials championship series, thereby collecting valuable technical data for the development and improvement of the machine.

Andrews has ridden the Yamaha superbly to win the French and Italian rounds, thus launching a strong bid for retaining the title for the third consecutive year.

Also, in this year's Scottish Six Days Trial, Mick finished overall second, and became the best performer in the 250cc class.



Steadfast performance of engine

The 7-port 'Torque Induction' engine develops amazingly flat torque characteristics, thereby enabling a rider to handle the machine at ultra-low rpm range down to the idling rpm.

The engine shows a quick and correct response to the slightest throttle opening.

Each gear ratio of the 5-speed gearbox is correctly and ideally set with every trials condition in mind. It enables a rider to successfully negotiate both tricky observation trials section and tough speed test section as is the case with the reliability event.

Outstanding reliability

The bodywork has been designed overall slim, with the handlebar, fuel tank, seat, footrests, pedals, crank and power-plant well positioned and arranged for the better balanced distribution of total machine weight. This model also features excellent steering alignment allowing a rider to take

a more reliable riding position.

The front fork has a longer cushion stroke and improved rigidity, ensuring more efficient, lasting damper action. Both suspensions also work well. Those prove to be noteworthy advantages under every trials condition.

Specifications

Dimensions

Overall length: 1,985mm
Overall width: 835mm
Overall height: 1,110mm
Seat height: 760mm
Wheelbase: 1,295mm

Min. ground clearance: 285mm
Weight (Net): 93kg

Performance

Min. turning radius: 1,600mm
Braking distance: 15m (50km/h)

Engine

Type: 2-stroke, air-cooled, 7-port piston or reed valve induction, gasoline type
Leaning-forward single

Cylinder:
Displacement: 246cc
Bore x stroke: 70 x 64mm
Starting method: Primary kick
Ignition system: Magneto

Fuel tank capacity: 6.0 lit.
Oil tank capacity: 0.35 lit.
Lubrication: Autolube

Transmission

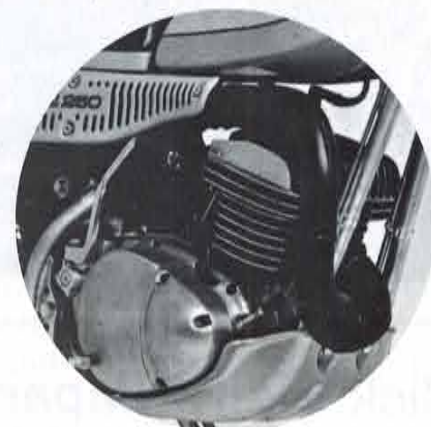
Primary reduction: Gear
Reduction ratio: 68/20

Secondary reduction: Chain
Reduction ratio: 53/14

Clutch: Wet, multi-plate
Gearbox: Constant-mesh 5-speed
Frame: High-tensile steel diamond type tubing

Tire size: Front, 2.75-21-4PR
Rear, 4.00-18-4PR
Brakes: Front & rear, mechanical drum type (leading trailing)

Suspensions: Front, telescopic
Rear, swing arm
Cushion units: Front, oil damper coil spring
Rear, oil damper coil spring



Light, Durable and Rugged

The seat, air cleaner case and engine guard are made of light FRP. In addition, the E-type section aluminum alloy front fork and forged alumi. bracket have noticeably reduced the total machine weight.

The frame of high tensile steel, double down tubular type, is light but rugged.

Motorcycle Trials

Third Popular Sport in Japan

Motorcycle trials or trials riding has become very much popular in Japan recently as the third motorcycle sport following road racing and motocross. Some say that trials is the most enjoyable of all, in a sense that it is the only branch of all motorcycle sports where the rider can practice on his own machine and riding skills without any sophisticated facilities of closed circuits, ambulances and personal help.

Observation and Reliability Trials

Trials riding is most popular in Europe, especially in Great Britain. This sport is divided into two different categories, namely, observation trials and reliability trials. In the case of the former, the course was divided into many sections, all incorporating various topographic features such as rocks, grass, down or up slopes, woods, fords, etc., each of which is attended by an observer or observers. Every contestant must be rated for his riding accuracy while passing through each section. One who has lost the least marks will be the winner. The Scottish Six Days Trial which is competed

This motorcycle sport began in Great Britain some 70 years ago.

In those days, it was designed just to experiment with a machine's performance. In other words, the machine was tested from every angle for its reliability in 'trials'.

Later on, it developed into a kind of sport where a rider's skills on a machine should be tested against various prearranged conditions.

over some 160 sections, is the largest-scale event of the kind in the world.

On the other hand, reliability trials may be rather called 'a kind of time competition'. In this trials, every contestant has to reach each time control point within a given time. One who has covered the total distance within the shortest time, will be the winner. The course, quite like that of observation trials, incorporates various types of rough and tricky topographic conditions.

The International Six Days Trial is the most typical one of this category.



More Efforts to Be Directed toward This Sport

Yamaha will direct more efforts toward the promotion of this sport than ever by means of trials school sessions given as part of the leisure-time sport promotion program which is carried forward on a nation-wide

scale under a keyphrase "Safe & Pleasurable". Also, the forthcoming production trials model is expected to set another spurs to the further growth of sound and pleasurable trials sport.

Mick Visits Japan

Reigning European Trials Champion Mick Andrews recently visited Japan for the purpose of serving as an instructor for the sessions of trials school given by Yamaha on a nation-wide scale, as well as taking part in the 2nd Yamaha Grand Sports Festival to take place at the Fuji Speedway in Shizuoka Pref. on 4 & 5 August.

He was accompanied by his attractive wife just as before. Mick is to take part in the Finnish round of the series on August 19.



Photo: at the rest room of the Haneda Air port.

Trials Machine

The machine used in trials must be well equipped for this particular purpose. The trials machine naturally bears considerable difference from any other machines in outlook and performance as well.

Tires

Both front and rear tires must be of universal trials type which has already proven excellent in negotiating every terrain condition in the case of Yamaha trail machines.

Electric equipment

All electric equipment must be perfectly watertight. Otherwise, any equipment taking water while riding into fords or pools will prevent engine's satisfactory performance.

Riding position

A rider usually rides his machine with the waist lifting from the seat. The narrower and lower seat will more smoothly and successfully let him maintain his riding balance while tackling rough, tricky conditions.

In trials, a machine must best fit a rider, thereby enabling him to display his utmost skills to successfully negotiate or overcome every prearranged condition.

Also, keep in mind that the positions of seat, handlebar and footrests are closely interrelated with each other, and bear very important effects upon a riding position.

Light & Rugged

The machine must be light but rugged so as to let a rider smoothly overcome every tricky and tough riding condition.

For example, the trials machine is equipped with small-size drum brakes for the sake of weight reduction as well as sharper and quicker response under tricky riding conditions.



Gear ratios

Gear ratios from 1st to 3rd must be set with every conceivable trials condition in mind. 4th and 5th gears are used for riding on normal roads.

Air pressure

The air pressure of tires bears very important effects upon a machine's roadgripping. Air pressure must be maintained at such a level that the rear tire is half sunk with a rider sitting astride the seat, while the front tire is sunk slightly less than half.

Suspensions

As for trials machines, suspensions need neither hard spring nor strong damper action, generally speaking. But, they must allow necessary adjustments so as to meet varied trials conditions such as rocks, muds, sands, grass, etc.

Yamaha has designed and engineered the first production trials model TY 250 with all taken into account, basing on advices and recommendations by Mick Andrews which has obtained various technical data through actual competitions.

Next Issue

Championships Won

Kent Andersson of Sweden clinched the 125cc title and Dieter Braun of West German became the 250cc champion, both on Yamahas. See next issue for particulars.

2nd Y. G. S. F.

Every detail of the 2nd Yamaha Grand Sports Festival, a grand pageant in midsummer will be reported in the next issue, together with lots of pictures taken for various highlight scenes.

CONTRIBUTIONS INVITED

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

YAMAHA MOTOR CO., LTD. 2500 SHINGAI IWATA SHI, SHIZUOKA KEN, JAPAN.

Ohfunato Plant Newly Constructed for Manufacture of FRP Fishing Boats

The Ohfunato plant of Yamaha which was recently constructed in Ohfunato, Iwate, Northeast Japan has been put into operation for the manufacture of FRP fishing boats.

The plant is located at a site facing the quiet Bay of Ohfunato, and covering some 40,000m² in total area. Total floor area is approx. 8,000m². The plant is complete with various ultra-modern production facilities, thus performing every process of FRP boat manufacture most efficiently under comprehensive, flawless quality control system. Total output is estimated at 10,000 units of various sizes per year.



Yamaha Further Consolidates Leadership

Yamaha has led the field of FRP boat manufacture in Japan since the first model was introduced on the market in 1960, thereby securing unrivaled 70% of total market. The boats of FRP (fibreglass reinforced plastics) prove more advantageous in many ways than wooden or steel boats. Included in the unique attributes of this material are 'light in weight', 'durable', 'easy to maintain', 'insectproof', 'anti-corrosive' and 'lustrous'. In addition, Yamaha's high-level technology has recently succeeded in appreciably reducing production costs for those boats. Thus, FRP boats are now fast becoming popular among fishermen in Japan, as a new power to take over the place of wooden or steel boats for fishing operations of all types around Japan.

In an effort to meet such a trend, Yamaha is now pushing forward with the program for the full-scale expansion of FRP boats production. The Ohfunato Plant was constructed as part of this program. In addition, a little later than the construction of the Ohfunato Plant, another new plant was completed at Gamagoori near Hamamatsu. This plant has been already put into operation for the manufacture of large-size FRP fishing boats, too. Thus, Yamaha has now three plants of fishing boats in operation. Besides, some other plants are scheduled to be constructed in the western, northern and southern districts of Japan, respectively, thereby further consolidating Yamaha's leadership in this field.



Safe Driving Session for Girls

Technical Center Iwata

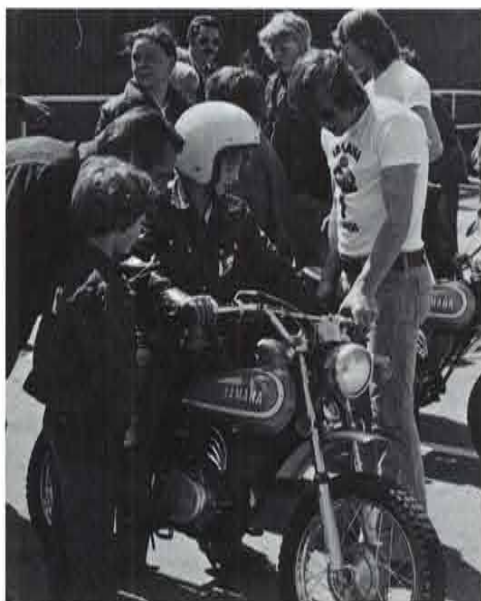
50cc bike users occupy a considerably large portion of total motorcyclists in Japan. Those bikes are mostly intended for varied utility purposes, i.e. for daily shopping, commuting or any other ride-to-work purposes.

Even lady motorcyclists admit those bikes very useful for fun and for utility as well.

Along with an increasing number of lady motorcyclists here, safe driving education for them is becoming the matter of particular concern for all quarters concerned.

Here introduced are the scenes of a special training session at the Technical Center Iwata given for those girls wishing to obtain 50cc class licences.

Girls learnt how to ride bikes in a very safe and pleasurable way under the alert eyes and pertinent guidance of Yamaha instructors. Yamaha's all-out efforts put in safe driving education for novice motorcyclists prove very contributory to the decrease of traffic accidents.



Learn-To-Ride Safety Program -Canada

Efforts also focus on the education of novice riders in promoting the Learn-To-Ride Safety Program in Canada.

According to the statistics, very novice motorcyclists account for some 60% of accidents but the Safety Program is expected to reduce appreciably the number of those accidents involving them.

Novice riders, male and female, or young or old ranging from eight to eighty, are trained for safe driving techniques and for correct technical knowledge of machine.

Every session is very much favourably received by novice riders. The Program covers many major cities in Canada, such as Vancouver, Toronto, Ottawa and others.



Road Race

Yamaha riders won three classes of the Yugo GP, the 6th round of the series on June 16 & 17. Kent Andersson, 125cc class championship leader scored his 5th win to further consolidate his bid for the title. West German rider Dieter Braun rode his Yamaha to victory in the 250cc race. Janos Drapal of Hungary also finished first in the 350cc race.

Braun repeated his successful ride in the 250cc race of the Dutch TT on June 23, thereby launching a powerful bid for the 250cc title this year.

Teuvo Lansivuori of Finland riding the works-prepared Yamaha convincingly won the 250cc race of the Belgian GP which was staged on the ultra-fast Francorchamps circuit on July 1.

Lansivuori also highlighted the 350cc race of the Czech. GP on July 15 by beating Giacomo Agostini and Phil Read both on Italian MV works machines. Lansivuori added full 15 points to his tally and became the leader in the championship standings. Braun rode his Yamaha to victory in the 250cc race, too.

250cc Motocross

Hakan Andersson of Sweden riding the Yamaha works machine finished 1st in the 2nd heat of the Yugo. GP on May 20, thus boosting his total points to 134.

In the French GP, the 7th of this year's series, Andersson had a dice with Adolf Weil on the West German Maico machine. Weil managed to finished first closely followed by Andersson in the 1st heat. Andersson hit back in the 2nd heat, and both were tied at 27 points in this round. Resultantly, Andersson's total points hoisted to 161, a massive 45 points lead over Weil's 116.

Torao Suzuki Ranks 1st '73 FIM 125cc MX Prize

Torao Suzuki, Yamaha's sole contender for the FIM 125cc MX Prize which obtained the status of the international championship this year for the first time in history, won outright the Polish round, the 6th of the series on June 24, thus adding vital 30 points to his table.

This year's 125cc MX Prize is to be contested 17 times, but the first 16 rounds are divided into two groups, A and B, each of which has 8 rounds.

Each round has two heats as usual, but according to the new competition rules of the FIM, finishers from 1st to 10th in each heat are awarded championship points by the same awarding system as that for other class championships, i.e. 15 points for 1st, 12 points for 2nd and 10 points for 3rd. For example, if a rider finishes 1st in both heats, he is awarded full 30 points.

Accordingly, 8 rounds mean 16 heats, and the best 9 heats count for final standings. The first 15 finishers of each group are qualified to take part in the Yugo. round on September 23, the final to decide this year's championship.

Torao was nominated a contender for the A group, riding the powerful works machine equipped with the newly developed Yamaha Mono Cross rear suspension.



Torao's Brilliant Success

	1st heat	2nd heat	Total points
Belgian round	1st	1st	30
Czech. round	1st	1st	30
Finnish round	—	—	—
Swedish round	—	1st	15
Danish round	1st	1st	30
Polish round	1st	1st	30
Grand total			135

As you can see, Torao dominated all heats he contested, except for the 1st heat of the Swedish round. He missed the Finnish round in respect of the death of Jarno Saarinen.

Resultantly, he already ranked overall 1st in the final standings of A group with two rounds to be contested yet.

Now, high hopes can be held for him to clinch this year's title as the first-ever Japanese champion of international MX.



Road Race GP Championship Positions

125cc class

1st	K. Andersson	Yamaha	75
2nd	J. Schurgers	Bridgestone	57
3rd	E. Lazzarini	Maico	51
4th	C. Mortimer	Yamaha	44
5th	R. Minhoff	Maico	37

250cc class

1st	D. Braun	Yamaha	53
2nd	T. Lansivuori	Yamaha	49
3rd	J. Saarinen	Yamaha	45
4th	M. Rougerie	Harley-D.	40
5th	J. Dodds	Yamaha	37

350cc class

1st	T. Lansivuori	Yamaha	72
2nd	G. Agostini	MV	57
3rd	P. Read	MV	34
4th	K. Andersson	Yamaha	33
5th	D. Braun	Yamaha	33

Yamaha Sets A Trend of Sport -Morocco

Yamaha motorcycles are very steady in expanding their market in Morocco of North Africa under strenuous efforts by Mifa, distributors for Yamaha in Casablanca in close cooperation with their affiliated dealers.

Especially, it attracts great attention that Yamaha motorcycles are setting a trend of motocross in this country. The sport of this type was relatively less popular in this part of the world, but enthusiasm to it has been fast hotting up since Yamaha's production motocross models were introduced on the market.

Mr. M. Chiche under contract with Mifa rides the MX 250 superbly to score a lot of wins in big motocross races held throughout the country. Impressive success in racing is expected to bring on another increase in sales.

The Yamaha MX 250(No. 3) ridden by Mr. M. Chiche proves unrivaled in every race. His excellent riding skills plus Yamaha's high, dependable performance deeply impress a lot of spectators. Along with an increasing number of motocross enthusiasts in this country, Yamaha motorcycles are expected to further expand their market, as Yamaha is the most successful brand in this popular motorcycle sport.



He is the customer No.1 for SATCO

-Liberia

Liberia is the newest market for Yamaha motorcycles in Africa. It was just in December of last year that Swiss African Trading Corporation (SATCO) acquired the sole distributorship for Yamaha in this country.

Ever since, sales have been setting a satisfactory increase thanks to their constantly strenuous efforts.

Now, Yamaha's lightweight utility models such as the AG 100, YB 100 and GIFD are enjoying high, tremendous popularity among ride-to-work motorcyclists in this country.

Yamaha's high, dependable performance and outstanding economy are highly appreciated by them for their daily use.

The Department of Agriculture has already placed an order with SATCO for 300 units of those lightweight utility models.

Now, this country is becoming one of the most promising markets for Yamaha in this part of the world.

Here pictured is Mr. Bobby Gandema who became the first to buy a Yamaha from SATCO. He is proud of being a Yamaha owner.

Boat Show -Denmark

The lightweight outboard motors of Yamaha reinforcing the number of fans in Denmark, too. Danish people are well known for their traditionally vigorous activities on the sea. Lightweight Yamaha prove very much serviceable when mounted on pleasure boats or on sail boats as auxiliary motors.

Here introduced is the scenes of the boat show recently held in Copenhagen. The Yamaha corner was arranged by S.R.I., outboard motor distributors for Yamaha. A complete line of new Yamahas attracted a lot of spectators each day throughout the session.



YAMAHA Topics



Farm Bike Contest -Australia

Eighteen-year-old Chris Ovens riding a 125cc Yamaha won the '73 Farm bike contest sponsored by The Weekly Times in Melbourne, Australia. The contest attracted both experienced and novice riders from all over Victoria with several interstate entries. Virtually, all makes and sizes of farm bikes were represented.

The contest began with a slow ride in which the competitor had to ride around an enclosed circular track in the maximum time possible without stopping or putting feet on the ground.

Riders were started and timed individually, and several were in action on the course at one time.

The first obstacle was a farm gate which the rider had to open, pass through and

close without dismounting or touching the ground with his feet. From there on, they had to ride across a bridge or various sized logs. The course was designed to thoroughly test the ability and judgement of the rider rather than the power of his machine. Chris displayed an almost perfect ride all the way on his excellently handling Yamaha, and took the trophy and prize money.

Throughout the contest, a plenty of thrills and spills kept the crowd on their toes as riders went over a high dirt jump.

In this type of sport, bikes ranging from 90cc to 125cc proved more advantageous than other bigger machines, since the course was designed to simulate farm situations rather than trail or trials work.

