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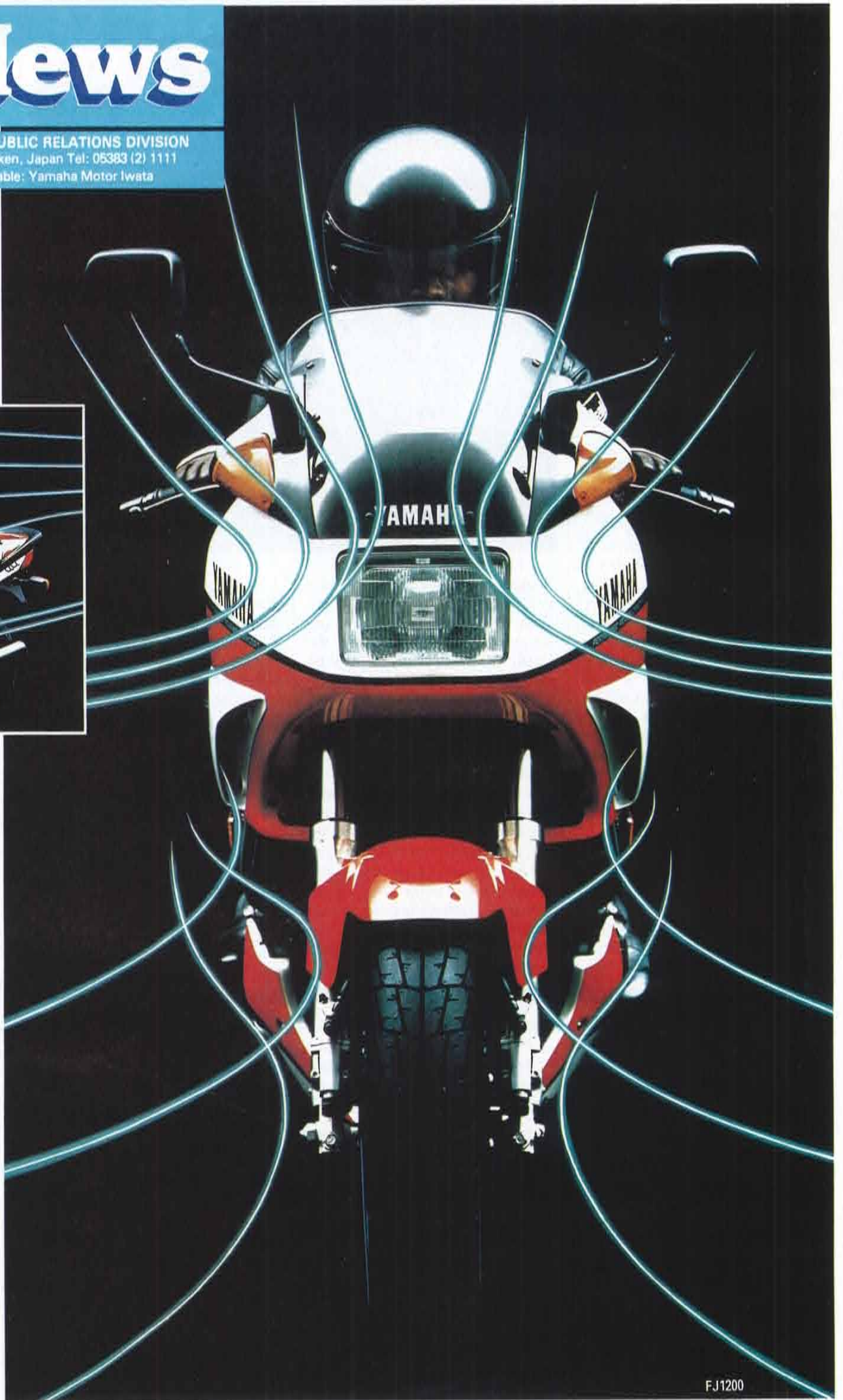
1986 European Model Range



The best gets even better!

Yamaha's current model range contains many motorcycles that are either undisputed leaders of their market sector or acknowledged as amongst the very best in terms of overall performance or technical execution.

Despite this, Yamaha has deliberately pushed development forward for 1986, improving and refining even its most successful models.



FJ1200

The 1986 European model range that was introduced during the Paris Motor Show included: the RD350F with increased power, the FJ1200, an oversized version of the successful FJ1100, the XT600Z Ténéré based on the 1985 Paris-Dakar Rally factory machine, the strengthened enduro 4-stroke range, TT350/TT250/TT225, the upgraded YZ motocrossers, the luxurious, superquality

XV1000 Virago, the mighty V-Max 1200cc vee-four, the pure pleasure-oriented SRX600, etc. All the models are proof that, in both the engineering and design departments, there is no such word as complacency. Development work on Yamaha motorcycles is a continual process.

Even the best can always get better!
(See pages 3 and 6 for more details)



'85 JAPANESE NATIONAL CHAMPIONSHIP

Taira takes the title for three years in a row

In Japanese national road racing championship Tadahiko Taira (Yamaha YZR500) clinches the title when he placed second in the final round of the '85 series held at Suzuka on September 8.

His nearest rival Masaru Mizutani (Suzuki RG500 Gamma) crashed out of the race.
(See page 2 for more information)



XT600Z Ténéré

TT225



SPORTS NEWS RUNDOWN

'85 JAPANESE NATIONAL CHAMPIONSHIP

ROAD RACING

(continued from page 1)

Taira proves himself Japan's number one

Despite tough challenges from other riders Taira dominated the Japanese national road racing championship for the third consecutive year when he finished runner-up to Australian Honda rider Wayne Gardner in the Japanese Grand Prix, the final round of the '85 11-round series. The Japanese GP, one of the biggest speed events listed on the MFJ sports calendar, was competed by the cream of top works riders watched by a record audience in excess of 80,000 in hot, fine weather conditions. Although Taira committed a mishap in the 10th round held at Sugo on September 1, scoring no championship points, he still held a 3 points lead over the nearest title rival Masaru Mizutani aboard a Suzuki RG500 Gamma.



Suzuka-favorite Australian rider Wayne Gardner (Honda) who had been the fastest in practice, occupied the pole position on the starting grid. He streaked into the lead right after the start. But the Yamaha ace stayed cool. He knew he would be a title winner if he could place just higher than Mizutani in this crucial race. While Gardner went on to lead the entire field, Taira kept his consistency to secure 2nd spot. In the meantime, Mizutani struggled for 3rd spot against another Yamaha rider Hiroyuki Kawasaki and Japanese Honda ace Keiji Kinoshita. Mizutani continued desperate efforts to cling to his last hope of clinching the crown. But by the middle stage of this

17-lap race he had dropped to 5th place. Gardner completed the 17 laps unchallenged at all. Taira came in 2nd place without any serious threat from the others. Mizutani crashed out of the race with lost machine control during the final stage. With these results, Taira took the national championship title for three years in a row, proving himself undisputable number one rider in Japan.

Race results

1. W. Gardner Honda
2. T. Taira Yamaha
3. H. Kawasaki Yamaha
4. K. Kinoshita Honda
5. Y. Hasegawa Yamaha
6. I. Ito Suzuki

'85 WORLD CHAMPIONSHIP ROAD RACING

ROUND 12 500cc

San Marino GP - September 1

Lawson ends the season with a superb victory

Eddie Lawson on a Yamaha YZR500 showed his brilliant top form to win the San Marino Grand Prix, the final round of the '85 season held at Misano on September 1. In this 35-lap race the Yamaha star led from start to finish to smash the challenge from the others including Wayne Gardner (Honda) and Randy Mamola (Honda). Lawson took the checker flag about 17 seconds ahead of Gardner. "I won the first and last Grands Prix this year. Today I had

a fantastic start, probably my best ever. The bike fired straight away and I went off like a rocket" said Lawson after winning a superb victory.

250cc

Lavado's easy win



In the 28-lap race former world champion Carlos Lavado (Yamaha) showed his real ability by outclassing the others. The Venezuelan ace received no threat after he took the lead on the second lap.

ROUND 7 Sidecar

Swedish GP-August 11

E. Streuer/B. Schnieders, '85 sidecar champions

Egbert Streuer/Bernie Schnieders (Yamaha) and Werner Schwazel/Fritz Buck tied at championship points when the former placed first and the latter second in the Swedish GP, the final round of the '85 series. But the former took the title with more race wins.

'85 WORLD CHAMPIONSHIP MOTOCROSS

ROUND 12 250cc

West German GP - August 11

A last-stage happening

Jacky Vimond (Yamaha) failed to clinch the title. In the final round held at Goldbach, West Germany, he finished 12th and 7th in the two races, while archrival Heinz Kinigadner (KTM) came in 2nd and 6th. These results left Vimond 2 points behind Kinigadner in final championship status.



RESULTS

ROAD RACING

Round 12 - San Marino GP - Sept. 1

500cc class

1. E. Lawson Yamaha
2. W. Gardner Honda
3. R. Mamola Honda

4. R. Roche Yamaha
5. R. Haslam Honda
6. F. Uncini Suzuki

250cc class

1. C. Lavado Yamaha
2. A. Mang Honda
3. L. Reggiani Aprilia
4. M. Herweh Real
5. J. Mattioli Yamaha
6. F. Ricci Honda

FINAL WORLD CHAMPIONSHIP POSITIONS

500cc class

1. F. Spencer Honda ... 141 pts.
2. E. Lawson Yamaha ... 133 pts.
3. C. Sarron Yamaha ... 80 pts.
4. R. Haslam Honda ... 73 pts.
5. W. Gardner Honda ... 73 pts.
6. R. Mamola Honda ... 72 pts.

250cc class

1. F. Spencer Honda ... 127 pts.
2. A. Mang Honda ... 124 pts.
3. C. Lavado Yamaha ... 94 pts.
4. M. Wimmer Yamaha ... 69 pts.
5. F. Ricci Honda ... 50 pts.
6. L. Reggiani Aprilia ... 44 pts.

Sidecar

1. E. Streuer/B. Schnieders Yamaha ... 73 pts.
2. W. Schwazel/F. Buck Yamaha ... 73 pts.
3. R. Biland/K. Waltisparg Krauser ... 50 pts.
4. S. Webster/T. Hewitt Yamaha ... 32 pts.
5. A. Zurbrugg/M. Zurbrugg Yamaha ... 26 pts.
6. M. Kumano/H. Diehl Yamaha ... 19 pts.

MOTOCROSS

250cc class

Round 12 - West German GP-August 11

1st race

1. G-J van Doorn Honda
2. H. Kinigadner KTM
3. S. Mortensen Kawasaki
4. M. Rinaldi Suzuki
5. A. Erikson Yamaha
6. M. Velkeneers Maico

2nd race

1. R. Diepold Kawasaki
2. M. Rinaldi Suzuki
3. P. Johansson Honda
4. A. Drechsel KTM

5. A. Erikson Yamaha
6. H. Kinigadner KTM

500cc class

Round 11 - Luxembourg GP-August 11

1st race

1. D. Thorpe Honda
2. A. Malherbe Honda
3. L. Persson Yamaha
4. D. Chandler KTM
5. K. Nicoll KTM
6. D. Watson Kawasaki

2nd race

1. A. Malherbe Honda
2. D. Thorpe Honda
3. D. Chandler KTM
4. K. Nicoll KTM
5. D. Watson Kawasaki
6. K. Ljungqvist Yamaha

Round 12 - Swiss GP - August 25

1st race

1. D. Thorpe Honda
2. L. Persson Yamaha
3. A. Malherbe Honda
4. E. Geboers Honda
5. G. Jobe Kawasaki
6. A. Vromans KTM

2nd race

1. A. Malherbe Honda
2. L. Persson Yamaha
3. E. Geboers Honda
4. G. Jobe Kawasaki
5. K. Nicoll KTM
6. D. Thorpe Honda

FINAL WORLD CHAMPIONSHIP POSITIONS

500cc class

1. D. Thorpe Honda 388 pts.
2. A. Malherbe Honda 378 pts.
3. E. Geboers Honda 227 pts.
4. G. Jobe Kawasaki 224 pts.
5. K. Nicoll KTM 204 pts.
6. A. Vromans KTM 144 pts.

250cc class

1. H. Kinigadner KTM 291 pts.
2. J. Vimond Yamaha 289 pts.
3. G-J van Doorn Honda 256 pts.
4. M. Rinaldi Suzuki 234 pts.
5. A. Drechsel KTM 210 pts.
6. J. Nilsson Husqvarna 199 pts.

'85 National Major Football League Match

Yamaha Football Team winning one game after another

The Yamaha Football Team beat the Hitachi Team by a score of 1 to 0 in the first game of the '85 National Major Football League Match held on September 8 at the Yamaha home ground. The team went on to win the second and 3rd games against the Yammar Diesel Team and Nippon Kokan Team held on Sept. 11 and 15 respectively. The

Yamaha Team won each game by a score of 2 to 1. "Our team which placed third in '84 National Major League ranking has been greatly strengthened this year", says game manager Sugiyama, "We hope we can have a better chance of winning the championship in response to your tremendous support."

GAME SCHEDULE

Game No.	Date	Ground	Versus
4	Sept. 28	Away	Honda
5	Oct. 6	Home	Furukawa
6	Oct. 10	Away	Zennikku
7	Oct. 13	Away	Nissan
8	Oct. 19	Home	Yomiuri Club
9	Oct. 26	Away	Sumitomo Kinzoku
10	Nov. 4	Away	Hitachi
11	Nov. 10	Home	Yammar
12	Nov. 17	Away	Nippon Kokan
13	Nov. 24	Home	Mitsubishi
14	Dec. 1	Home	Fujita
15	Dec. 7	Away	Mitsubishi
16	Jan. 19 '86	Away	Fujita
17	Jan. 26	Home	Honda
18	Feb. 2	Away	Furukawa
19	Feb. 9	Home	Zennikku
20	Feb. 16	Home	Nissan
21	Feb. 23	Away	Yomiuri Club
22	Mar. 2	Home	Sumitomo Kinzoku



1986 Yamaha European Model Range

The best gets even better!

FJ1200

Bigger means even better

The FJ1200, an oversize version of the FJ1100, comes out as the new flagship of the Yamaha 4-stroke fleet. Engine displacement of the air-cooled, in-line four cylinder motor has been increased from 1097cc to 1188cc. This was achieved by boring out the FJ1100 cylinders from 74mm to 77mm and retaining the same 63.8mm stroke. The result is an improvement right across the power range. More low-end power and mid-range torque plus the ability to pull a higher final drive ratio for increases in both cruising speed and maximum velocity. Top speed increase is estimated at around 8 km/h, while in the important "passing speed" rev-range between 4,000 rpm and 7,000 rpm, the new FJ1200 is from 3 km/h to 5 km/h faster than its smaller predecessor.

Because of the higher final drive ratio, these higher speeds are achieved without any detrimental effect on fuel consumption.

Carburettor settings are altered to suit the new engine size and the air cleaner duct has been lengthened by 50mm to reduce intake noise.

New single-tube stainless steel exhaust pipes are employed which reduce machine weight by 1.7 kg.

The exhaust collector box of the "four-into-two" system is also revised and features added internal partitions to reduce noise.

The chassis has always been one of the most impressive features of Yamaha's FJ models, with the lateral frame's box-section tubes running actually around the outside of the steering head to provide maximum lateral stiffness at this important point.

For 1986, the box-section swinging arm pivots on needle roller bearings instead of bushings. This improves both the suspension action and durability. It is controlled by Yamaha's familiar rising-rate Monocross suspension to complete a chassis package that guarantees stable, precise handling regardless of speed, load or road conditions.

Aerodynamic performance for 1986 has been improved by giving the FJ1200 a re-designed head fairing and engine under-cowl.

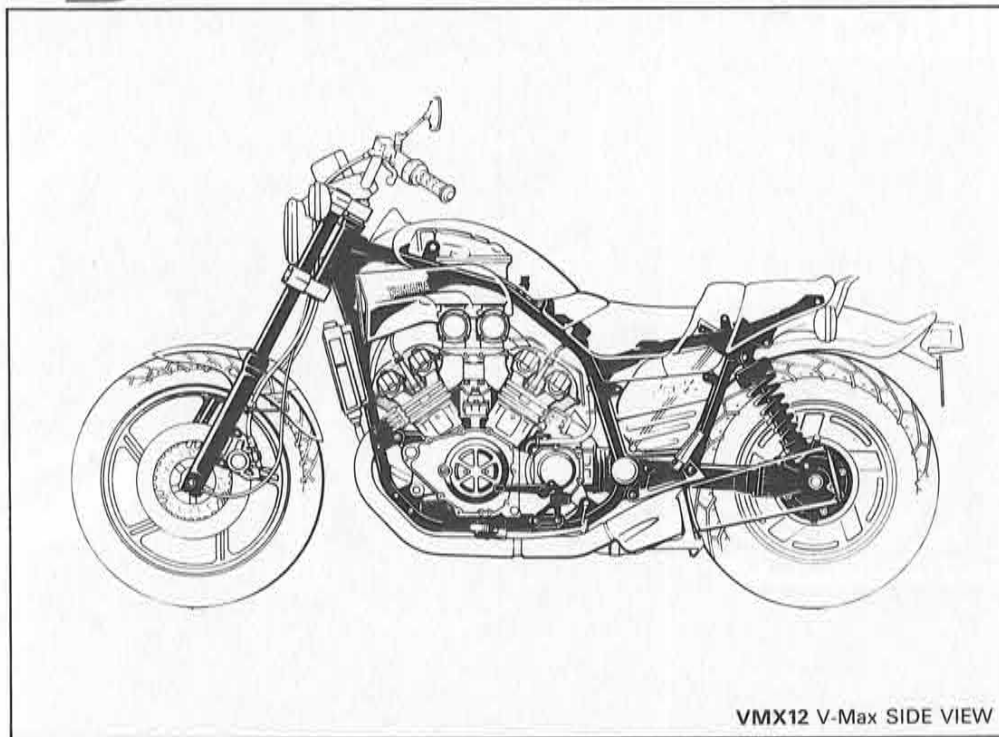
V-Max

A mighty "muscle bike"

Basically, the engine is the same liquid-cooled vee-four that powers the XVZ12TD highway cruiser. In the V-Max, however, it is propelling a machine of approximately two-thirds the weight and the logical results of this are obvious!

For its capacity and power output, the Yamaha vee-four is a compact engine. The two banks of cylinders are opposed at a 70° angle and the four constant velocity, direct downdraft carburetors sit neatly between them. Cylinder heads have four valve combustion chambers and double overhead camshafts.

While most key engine specifications are the same as on the XVZ12TD, power output has been increased by various upgrades in valve gear and carburation. The four Mikuni carburetors are of 35mm bore - 1mm larger than those on the motor's touring counterpart. Intake valves are increased in diameter from 29.0mm to 30.5mm and the exhaust



VMX12 V-Max SIDE VIEW

valves from 24mm to 25mm. The stems of the valves have been slimmed down to reduce reciprocating weight and improve the gas flow around them. The V-Max motor is housed in a full cradle frame, with widely spaced double downtubes. It wraps tightly around the engine so that it focusses attention on the block rather than diverting the eye away from it.

Front forks are air-adjustable and have strong 40mm stanchions which are further braced against lateral deflection by an aluminium fork bridge. Front wheel travel is 140mm.

A round-section steel swinging arm and twin shock absorbers are used as they best fit the styling image that the bike projects. The heavy duty shocks have five stages of spring pre-load setting and 4-point damping adjustment.

XV1000 Virago

Combining comfort and quality

Heart of the machine is the big, 1000cc vee-twin which provides a smooth, effortless supply of power made unique by the characteristic pulsing delivery of the "big vee" engine layout.

It has the same single overhead camshaft cylinder heads of earlier machines in the XV range and the dual carburetors sit neatly in the 75° angle between the two cylinders. Big bore exhaust pipes are tucked close into the engine block to keep a slim frontal aspect. The front cylinder's pipe exhausts from the front of the engine in a bright chrome curve that delineates the righthand side of the power unit. The rear cylinder's pipe exhausts to the rear and, in a clever piece of design thinking, is black-painted so that it does not distract the eye from the polished fine of the classic vee-twin cylinder barrels and heads. This pipe is routed below the swinging arm pivot in a "crossover" pattern to the right side of the machine. Then both pipes are finished off with a pair of short, bright chrome mufflers "stacked" one above the other in traditional custom style.

The motor is housed in the beam chassis proved on other models in the XV range but the Virago has reverted to twin shock absorber rear suspension purely to maintain the classic custom look. These shocks have a 96mm stroke, new progressive-wind springs and adjustment options for both spring tension and damping rate.

The front forks have a leading axle position to help provide the slower steering reaction desirable for the custom type of machine.

SRX600

A pure pleasure-oriented bike

Yamaha's new SRX600 four-stroke street "super single" is a bike built purely for the pleasure of motorcycling. Based on the familiar and proven XT600 engine, the 608cc single overhead camshaft features a four-valve cylinder head fed by the twin carburetors of the unique Yamaha Duo Intake System (YDIS). These two carbs operate like a dual-throat automobile unit, varying the functional choke size with the degree of throttle opening. The engine runs just on the primary unit at low speeds, giving economy in line with lightweight commuter bikes as well as instant engine response, thanks to the direct-pull throttle operation. The secondary unit then comes into play, giving a progressively larger choke size until at full opening there is approximately 25% more intake area than with conventional induction systems on similarly-sized engines.

Rear suspension is of classic twin-shock absorber layout, in keeping with the image that the machine aims to project. The torsionally-stiff, rectangular-section, steel swinging arm pivots on needle roller bearings and shocks are adjustable for spring pre-load tension through five positions. They are of the gas/oil, De Carbon type. An important point for owners who do their own maintenance - which is an area in which the SRX600 is definitely "user-friendly" is that the two front chassis downtubes are detachable to facilitate engine removal.

The front forks have 36mm stanchions that

aid lateral rigidity and pivot on ball bearings. They have a 140mm stroke and are braced by an alloy bridge.

The twin 267mm front disc brakes use opposed-piston calipers that generate higher braking forces than the normal single-piston type. Friction pads are of semi-metallic material so that they operate well in wet weather conditions. A single disc is used at the rear and both wheels are cast alloy in attractive, rigid and lightweight triple "twin-spoke" design.

Styling, in fact, is the real strong point of the SRX600. The Yamaha designers have come up with a machine that will, without doubt, appeal across the widest age-span in motorcycling.

RD350F

Increased performance

The theme for 1986 is increased performance, to keep the bike in its industry-leader spot as the premier lightweight sports motorcycle.

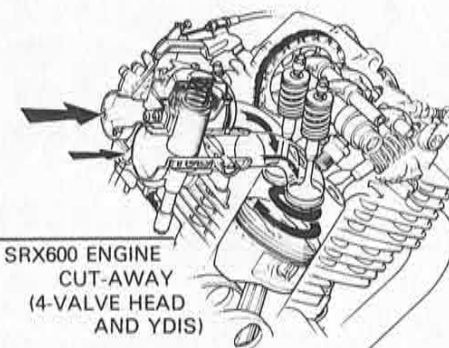
Modifications to gain this performance increase are concentrated mainly on the cylinder porting and combustion chamber. Port shapes and timings are changed, particularly the inlet port, where a secondary port has been added linking the intake and scavenge ports. This port smoothes out the intake pulses thereby allowing a more constant intake flow to be achieved.

Combustion chamber shape is changed from the dome-type with a narrow squish band to a wedge-shape when viewed in cross-section, with constant progressive angle from the head surface towards the central spark plug. Combustion chamber volume remains the same but the new shape promotes a smoother combustion process. A new exhaust pipe, with additional, racing-type silencers, also adds significantly to the power increase. The chassis of the RD350F remains basically unchanged. Various steps have been taken, however, that have both lightened the machine and increased its aerodynamic performance for 1986.

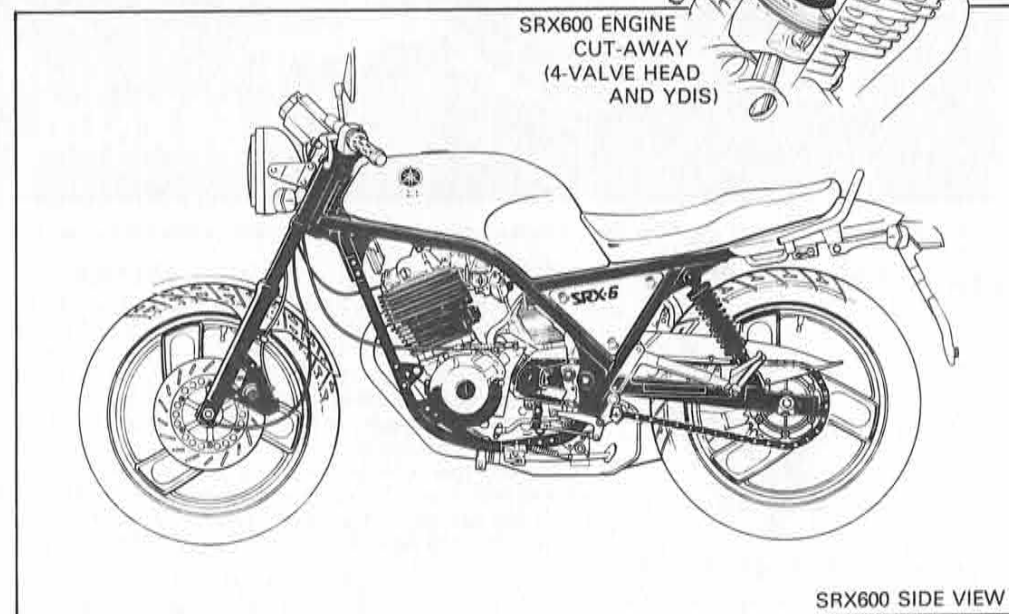
All new cast-alloy wheels with reduced weight mean less unsprung mass thereby improving handling.

A smaller battery trims the overall weight even further.

(Continued on page 6)



SRX600 ENGINE CUT-AWAY (4-VALVE HEAD AND YDIS)



SRX600 SIDE VIEW

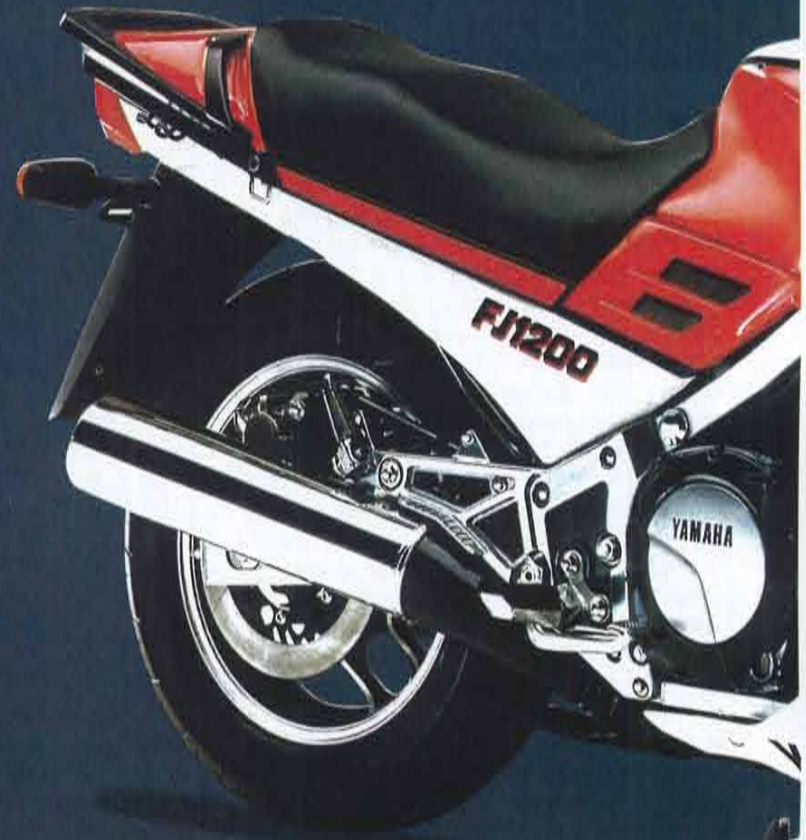
1986 Yamaha European Model Range

The best gets even better!

XV1000 VIRAGO



FJ1200



V-MAX



SRX600

SPECIFICATIONS



FJ1200

• Engine type: Air-cooled, DOHC, Parallel 4 cylinder, 4-stroke • Displacement: 1,188cc • Bore x stroke: 77 x 63.8 mm • Max. torque: 11 kg-m/7,500 rpm • Ignition: T.C.I. • Transmission: 5-speed • Lubrication: Wet sump • Fuel tank capacity: 24.5 litres • Dry weight: 227 kg • Suspension (front/rear): Telescopic fork/Swingarm-Monocross • Brakes (front/rear): Twin 282 mm discs/Single 282 mm disc • Tyres (front/rear): 120/80-V16 / 150/80-V16

V-MAX

• Engine type: Liquid-cooled, DOHC, V-4 cylinder, 4-stroke • Displacement: 1,198cc • Bore x stroke: 76 x 66 mm • Max. torque: 11.7 kg-m/6,000 rpm • Ignition: T.C.I. • Transmission: 5-speed • Lubrication: Wet sump • Fuel tank capacity: 15 litres • Dry weight: 258 kg • Suspension (front/rear): Telescopic fork/Swingarm-twin shock • Brakes (front/rear): Twin 282 mm discs/Single 282 mm disc • Tyres (front/rear): 110/90-V18 / 150/90-V15

XV1000 VIRAGO

• Engine type: Air-cooled, SOHC, V-twin, 4-stroke • Displacement: 981cc • Bore x stroke: 95 x 69.2 mm • Max. torque: 8.0 kg-m/5,000 rpm • Ignition: T.C.I. • Transmission: 5-speed • Lubrication: Wet sump • Fuel tank capacity: 14.5 litres • Dry weight: 220 kg • Suspension (front/rear): Telescopic fork/Swingarm-twin shock • Brakes (front/rear): Twin 267 mm discs/Drum • Tyres (front/rear): 100/90-H19 / 140/90-H15

SRX600

• Engine type: Air-cooled, SOHC, single cylinder, 4-stroke • Displacement: 608cc • Bore x stroke: 96 x 84 mm • Max. torque: 5.2 kg-m/5,500 rpm • Starting system: Kick starter • Ignition: C.D.I. • Transmission: 5-speed • Lubrication: Dry sump • Fuel tank capacity: 15 litres • Dry weight: 149 kg • Suspension (front/rear): Telescopic fork/Swingarm-Monocross • Brakes (front/rear): Twin 267 mm discs/Single 245 mm disc • Tyres (front/rear): 100/80-S18 / 120/80-S18

Note: Specifications are subject to change without notice.



RD350F



XT600Z Ténéré



TT225



YZ125



TZ250



PRODUCTION RACERS

RD350F

• Engine type: Liquid-cooled, forward inclined, parallel twin cylinder, 2-stroke
 • Displacement: 347cc • Bore x stroke: 64 x 54 mm • Max. torque: 5.0 kg-m/9,000 rpm • Starting system: Kick starter • Ignition: C.D.I. • Transmission: 6-speed • Lubrication: Autolube • Fuel tank capacity: 18 litres • Dry weight: 142 kg • Suspension (front/rear): Telescopic fork/Swingarm-Monocross • Brakes (front/rear): Twin 267 mm discs/Single 267 mm disc • Tyres (front/rear): 90/90-H18 / 110/80-H18

XT600Z Ténéré

• Engine type: Air-cooled, SOHC, single cylinder, 4-stroke • Displacement: 595cc • Bore x stroke: 95 x 84 mm • Max. torque: 5.2 kg-m/5,500 rpm • Starting system: Electric and kick starter • Ignition: C.D.I. • Transmission: 5-speed • Lubrication: Dry sump • Fuel tank capacity: 23 litres • Dry weight: 155 kg • Suspension (front/rear): Telescopic fork/Swingarm-Monocross • Brakes (front/rear): Single 267 mm disc/Drum • Tyres (front/rear): 3.00-S21 / 4.60-S18

TT225

• Engine type: Air-cooled, single cylinder, 80HC, 4-stroke • Displacement: 223cc • Bore x stroke: 70 x 58 mm • Starting system: Kick starter • Ignition: C.D.I. • Transmission: 6-speed • Lubrication: Wet sump • Fuel tank capacity: 10 litres • Dry weight: 100 kg • Suspension (front/rear): Telescopic fork/Swingarm-Monocross • Brakes (front/rear): 220 mm single disc/Drum • Tyres (front/rear): 2.75-21 4 PR / 3.50-18 4 PR

YZ125

• Engine type: Liquid-cooled, single cylinder, crankcase reed valve induction, 2-stroke • Displacement: 123cc • Bore x stroke: 56 x 50 mm • Max torque: 2.47 kg-m/10,000 rpm • Starting system: Kick starter • Ignition: C.D.I. • Transmission: 6-speed • Lubrication: Premix • Fuel tank capacity: 7.5 litres • Dry weight: 86.5 kg • Suspension (front/rear): Telescopic fork/Swingarm-Monocross • Brakes (front/rear): 220 mm single disc/Drum • Tyres (front/rear): 3.00-21 / 120/80-18

TZ250

• Engine type: Liquid-cooled, twin cylinder, crankcase reed valve induction, 2-stroke • Displacement: 249cc • Bore x stroke: 56 x 50.7 mm • Max. torque: over 4.2 kg-m • Starting system: Push • Ignition: C.D.I. • Transmission: 6-speed • Lubrication: Premix • Fuel tank capacity: 23.4 litres • Weight with oil & full fuel tank: 101 kg • Suspension (front/rear): Telescopic fork/Swingarm-link • Brakes (front/rear): Single 320 mm disc/Single 210 mm disc • Tyres (front/rear): 3.25/4.25-17 / 3.75/5.00-18

1986 Yamaha European Model Range

(continued from page 3)

XT600Z Ténéré

A real Paris-Dakar factory machine replica

This year's Yamaha XT600Z Ténéré is based on the factory machine raced in the 1985 Paris-Dakar event and features several improvements that expand its all-terrain capabilities still further.

The engine is still the familiar 595cc four-stroke with single overhead camshaft, four-valve cylinder head and Yamaha's unique Yamaha Duo Intake System (YDIS). This features progressively-linked carburetors of two different types. A direct-pull primary unit for instant throttle response and a constant vacuum secondary unit that comes into play at wider throttle openings to provide the most efficient high-rpm running. The size of this secondary carburetor has been increased for 1986 from 27mm to 28mm to give more top-end performance and the free-piston throttle slide has been replaced with a diaphragm-controlled one that gives more precise fuel metering at high engine speeds. The primary unit remains at 27mm to give smooth low-speed running and lower overall fuel consumption. Performance improvements on the Ténéré for 1986 are not confined to the carburation. The combustion chamber, intake ports and exhaust ports have all been re-shaped and enlarged to gain better engine breathing and fuel charge burning. Intake valves go up from 36mm to 37mm and exhaust valves from 31mm to 32mm.

They are controlled by a new-profile cam which increases performance.

A new, enlarged 6 liter capacity air-cleaner box is now fitted beneath the rear section of the massive Ténéré fuel tank and greatly improves engine breathing. It is specially-shaped to reduce intake noise and the size of the air cleaner element goes up from 320cc to 420cc for better intake efficiency. The result of all these improvements is a higher top speed and stronger acceleration from a smoother-running, quieter engine. For the coming year, the chassis and component parts of the XT600Z Ténéré have undergone a total rethink. It is still the same, totally-proven, package of rising-rate Monocross suspension with damping-adjustable rear shock; air-assisted, long travel front forks and front disc brake with high-efficiency, all weather friction pads but several key components have been re-designed and re-located.

The main aim of these alterations have been to lower and centralize the machine's weight mass, thus minimising the effect of the heavy fuel load and generally improving overall handling.

Most visually-apparent change is the fuel tank, which now carries most of its load in the low, pannier-type sides, thus concentrating the weight of the petrol around the center point of the machine. Fuel is fed up to the carburetors by a mechanical pump that is vacuum-operated by the engine's intake pulses. The rear end of the tank accommodates the new air cleaner, thus allowing it to be directly-located above the carburetor. Access to the air cleaner element could not be simpler. By removing the seat, the rider can reach directly into the air cleaner box at the rear of the tank. Moving the air cleaner to this position has meant that the space at the center of the machine that it has vacated can now be occupied by other, heavier components.

TT225/TT250/ TT350

High-performance enduro 4-stroke range

Now the TT models are available in three smaller sizes than the 600cc previously available. On offer for 1986 are TT225, TT250 and TT350 options.

TT225

The engine is based on the single overhead

camshaft, two-valve XT200 unit rather than the twin-cam, four-valve XT250 & 350 motors.

Bore and stroke of the XT200 unit have been increased from 67 x 55.7mm to 70 x 58mm, giving an actual capacity of 223cc. Clutch capacity has been increased by the addition of extra plates to cope with the added horsepower. The TT225 has six clutch plates and five friction plates. To make starting easier for the newcomer to four-stroke, single cylinder motorcycling, the TT225 is fitted with a semi-automatic decompressor.

The chassis of the TT225 has Yamaha's proven rising rate Monocross suspension, controlled by a shock absorber that allows rebound damping adjustment and has a gas cell at its upper end to cushion the hardest shock and help prevent bottoming. Many of Yamaha's familiar off-road components from other successful models are utilised for the TT225.

TT250

Using the double overhead camshaft XT250 engine as a base, the more powerful TT250 has the compression ratio raised to 10:1 and has waisted intake valves that permit better gas flow into the engine. The XT/TT250 engine is, of course, a four-valve motor rather than the two-valve, configuration of the TT225.

Coupled to the four-valve head is Yamaha's unique Duo Intake System (YDIS) which uses two separate types of progressively-linked carburetors to supply the engine's fuel charge. Primary carb is of direct-pull operation for quick throttle response while the secondary unit is of the constant velocity type that provides smooth high-rpm cruising ability with reasonable economy.

A stronger piston design and longer piston pin, crank pin size increased from 33mm to 38mm, high capacity, heat treated cam chain, higher rate clutch compression springs, and unique combined valve guides and spring seats. Chassis construction is of high-tensile steel tube with a full cradle, single downtube configuration. Engine mounts are in light alloy to reduce weight. The special competition-type shock absorber has 20 adjustment positions for the rebound damping and permits 280mm wheel travel. Front forks have 41mm stanchions to resist the lateral deflections of contact with rocks and ruts and also allow 280mm of wheel movement.

TT350

Completing the middleweight TT line-up is the Yamaha TT350 which, obviously, is based on the very successful XT350 introduced last year.

The modifications made to the 250cc version previously-mentioned are all incorporated in its bigger brother plus the flywheel mass of the TT350 engine has been reduced by 10% to make it more responsive.

Gearing is raised overall and first and second ratios in the six-speed transmission are closed to cope with the demands of off-road riding.

Apart from the bigger engine and the particular modifications made for the 350cc version, the TT350 is identical to the 250cc model.

reduces the period between fuel intake and crankcase compression.

Overall performance is increased, with particular benefits in the low and mid-rpm ranges. There is more torque and smoother power delivery which translates to easier throttle control and faster lap times.

Actual induction is still vacuum-controlled via reed valves between the new Mikuni TM34SS flat-slide carburetor and the engine inlet tract. Fiber reeds, as introduced in 1985, are retained because of their quicker response to engine pressure changes.

The flat-valve carburetor also speeds up throttle response thanks to the smoother mixture flow promoted by the shorter venturi.

The result is an even more powerful 125cc motor, with more torque and highly-responsive power delivery.

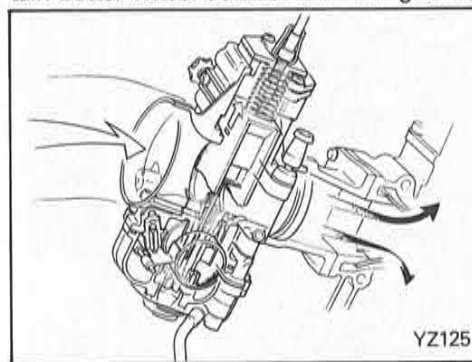
Great attention has also been paid to the exhaust side of the new engine. A water-passage in the cylinder jacket has been run beneath the exhaust port to improve cooling in this critical area and the angle of the sub-port in the YPVS exhaust power valve has been changed to increase gas-flow speed into the main port. The width of the subport has also been reduced from 10.5mm to 9.3mm to achieve the same effect.

On the chassis side, the new YZ125 utilises rear suspension as developed on the factory YZM motocross racers. Its rising rate Monocross system is controlled by an Öhlins-type shock absorber that contributes to mass centralization and lower centre of gravity by being mounted right behind the engine, low down and in a more upright position than previously.

The gas/oil shock features an integral reservoir and steel cylinder to maintain its performance even when hot. The shock absorber was used by American Championship star, Broc Glover and 250cc World Championship contender, Jacky Vimond.

A new linkage layout gives better traction by having a smaller leverage ratio at the beginning of the suspension stroke but it still provides 315mm of rear wheel movement... 5mm more than its predecessor.

Yamaha's unique Brake-Actuated Suspension System (BASS) is utilised to soften the rear suspension under braking and so maintain better wheel contact with the ground.



TZ250

Factory-type alloy chassis

Motive power comes from the familiar parallel twin-cylinder two-stroke unit, with the crankcase reed valve induction that was introduced on the 1985 production machines. The dimension of the reed valve intake area has been increased for 1986, however. Where the previous model's intake area measured 40mm x 47mm, the 1986 version has an elongated tract of 38mm x 56mm.

The carburetor settings have been changed to accommodate the extra intake capacity and a new expansion chamber is also utilised.

Lightweight plugs fill the balance holes in the crank webs to increase primary compression ratio and the cylinders are plated by a special seizure-resistant, low-friction ceramic composite process.

The new lightweight frame is fabricated in alloy sheet and box-section tubing for maximum rigidity and follows the pattern so successfully established by the 500cc Grand Prix machines that won World Championships for Eddie Lawson and

YZ80/YZ250/ YZ490

Higher performance potential

These models come out with a number of detail improvements and modifications for higher performance potential.

YZ80

The YAMAHA YZ80 now features a new cylinder and head design with the cylinder height increased so as to raise the inlet port position and provide a straight inlet tract into the engine.

This significantly improves intake efficiency, with gains in both power and quick throttle response, due to the intake tract design changed and revised ignition curve, is actually higher than the 1985 model.

Coping with the higher power output are a new multi-plate clutch (10% bigger capacity than in 1985) and a double-core radiator instead of a single-core unit.

YZ250

The YAMAHA YZ250 employs the same new suspension layout and rear shock absorber as on the 125, with the same changes made to the front end as well. Weight has been trimmed off the front by the use of a 220mm diameter carbon steel disc brake and a lightweight hub. Also shared with the 125 is the asymmetrical-style fuel tank and low radiator mountings. Engine modifications are mainly aimed at eliminating heat distortion and so improving reliability and sustained power output.

The cylinder head to barrel joint is now sealed by O-ring, and the power valve diameter is reduced to that of the YZ125. A smaller power valve means a smaller orifice in the cylinder block which translates to a more rigid casting and less heat distortion.

YZ490

The YAMAHA YZ490 also has the YZM "factory racer" suspension with BASS and Öhlins-type shock absorber with integral oil and gas reservoirs.

Engine alterations have been confined to providing even more low-rpm power and smooth mid-range delivery for easy riding. It is achieved by the use of quick-response fibre reed valves and revised transfer porting.

To take full advantage of the higher power output in the mid-range, the four-speed gearbox has been replaced with a five-speed transmission.

Kenny Roberts, thus assuring superb handling.

The main frame is constructed in semi-monocoque fashion with a triangulated, pivoting rear sub-frame controlled by a newly designed, gas/oil, shock absorber. Rear suspension rising rate linkages, the same type as on the factory machines, and the shock absorber, are located low down for mass centralisation and a lowered center of gravity. Provision for adjusting the machine's ride height is made via the suspension linkage.

The shock, which has an integral gas chamber and separate oil reservoir, has adjustment capabilities on both compression and rebound. Thus the suspension can be pre-set for any track conditions.



Fully the dreams of 7500 bike fans

Following the success of last year's show, the Yamaha Continental Road Show was held for a second time this year in France over a one-month period. Originally, the Road Show is a promotional campaign in which the organizers supply motorcycles for display and test rides and travel from one regional market to another holding a show in cooperation with the local dealers. The purpose of the show is to increase demand by helping a larger number of potential customers experience the superior performance of Yamaha products and by giving them a feel for the unique qualities of each of Yamaha's different models. In a market which is constantly undergoing rapid development in the areas of machine performance and model diversity, and with the ever increasing competition between makers, this type of activity is becoming a more and more important means of promotion. In a mature market such as this it is not enough to simply raise sales temporarily through short term sales activities; it is essential to appeal to the customers, and in a larger sense to the society as a whole, in positive ways which will help to rebuild the basic demand for motorcycles.



The important point is to find the potential user

This year's Yamaha Continental Road Show, a joint project of Yamaha CFM and Continental Tyres, was held over a four week period at four different locations. With a circuit run planned as the main event, Nogaro (Southeast France), Paul Ricard (Southwest France), Croix en Ternois (North France) and Carole (Paris area) were chosen as the show sites.

As far as the actual organization of the shows is concerned, with the attendance limit at each of the sites considered to be about 2,000, a store-front poster campaign and word of mouth communication were used as publicity, with posters and invitational tickets being distributed to the local dealerships based on their size. Also, the individual dealers conducted regional promotion campaigns aimed at potential



Riders wait their turn for the circuit run.



In addition to the circuit run, test rides are held for selected customers at each of the dealer's stands.

customers. The invitational tickets were distributed one ticket per person to the regular customers of the dealerships and to select individuals who demonstrated potential as future customers in search of the right bike. It is important to make a distinction between people who merely want to try a run on the circuit and real potential customers who want to try out a specific bike.



One of the bikes provided by a dealer for test rides

stores by preparing a number of prizes and holding a lottery by means of the microphone on the main stand, saying: "Such-and-such a dealership will now hold a lottery. Winning guests will receive such-and-such prize compliments of our dealership."

Action riding photos for the participants

Here is how the second annual Road Show looked in terms of statistics.

- Total number of customers in attendance: 7,500
- Number of dealers participating:
 - a) dealers who organized touring groups of customers to attend: 30
 - b) dealers who set up stands at the show sites: 60
 - c) dealers who advertised the show in their shop windows and distributed invitations to interested customers: 300
- Bikes in attendance: 50% Yamaha & 50% other makes.
- Bikes used for test rides: FJ1100, FZ750, XJ900, XJ750, XJ600, RD500LC, RD350LC

One of the unique features of this year's show was a service designed to get the customers who had been invited to participate in the special test rides at the show to make a visit to their local dealer's shop two weeks later. At the test ride the customer was asked to write down his name and address and other vital information along with plate number of the bike ridden. The organizers then had photographs taken of the customers in action on the circuit and these photos were sent to the local dealers two weeks later. When the customers came to their local shop to claim their free photos, the dealer had an opportunity to make a follow-up sales pitch.

This type of road show creates an excellent opportunity to promote sales, and therefore we feel it should be used to its fullest potential in increasing sales and in securing the bonds between you and your regular customers and also in creating new bonds with future customers. Promotional activities based on this same basic principle are presently being conducted in Italy, England and Germany as well as France. The future is sure to see new, more effective and more efficient activities of this type spreading not only in these countries but in other countries around the world as well.



It's a great feeling to get out and ride on the circuit. While the riders enjoy their runs, the organizers take action photos of each rider to be sent later to their local dealers for free distribution.

The 24-Hour Trial in Australia



Finish at Kapunda

Of all the six-day, four-day, three-day, two-day, 12-hour and 24-hour trials held in Australia in the period before the war, only one has survived to the present day — the South Australian 24-Hour Trial. First held in 1924 by the M.C.C. of South Australia, the "24" has won a place in the history books of Australian motorcycling. It has survived through a world war, depression and market slumps. The event is now run by a committee of hardworking volunteers from different clubs. In 1984 the Diamond Jubilee of the 24-Hour Trial was celebrated and this year the 61st

event was organized on July 13 and 14 in the Kapunda and Barossa Districts, with the Main Control at the Kapunda Trotting Track. A similar course to last year's trial, but reversed with a few extras. Leigh Hollamby/Craig Seagenschnitter on a Yamaha 600 machine placed first in the sidecar class.

Sidecar class results.

1. L. Hollamby/C. Seagenschnitter Yamaha 600
2. I. Scholz/C. Redway. Honda 500
3. F. Weckert/P. Menzel Yamaha 600
4. N. Evans/P. Kurtz Yamaha 500
5. C. Rogers/M. Roseler Honda 600



Flat tyres are quite normal

A large test ride on the circuit, and an intimate one at the dealer's stand

The participating dealers were divided into two groups:

1. Dealers from locations more than 100km from the nearest show circuit: These dealers formed touring groups with their customers and rode to the nearest circuit, where they underwent registration immediately on arriving at the show site. At registration these customers received an invitational ticket which would allow them to take part in a special limited test ride event to be held at the dealer's stand, in addition to the general circuit run.

2. Dealers from locations less than 100km from the circuit site:

The organizers supplied these dealers with tables, chairs, pamphlets and refreshments to enable them to open a dealer's stand, and in turn, asked that these dealers prepare one or more models for test ride purposes. Such dealers who set up stands were expected then, to offer test ride services not only to their own customers but also to other customers holding a special invitational ticket. In cases such as this, it is, of course, necessary to make certain in advance whether or not there is valid insurance on the riders and bikes involved. Also, individual dealers were allowed to publicize their own

1986 Boat Models for the Japanese Market

Increasing product variation based on demands from diversifying user needs

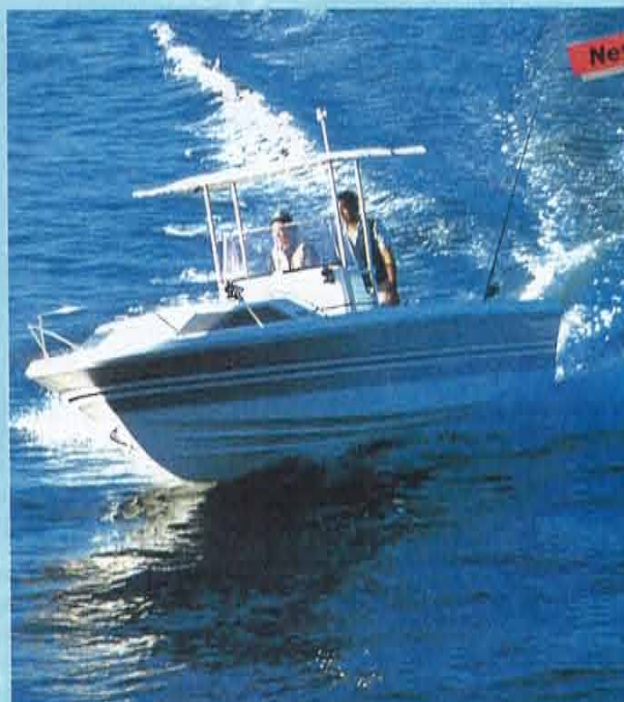
The '86 Yamaha boat models for Japan have recently been introduced. The 19-boat line-up is all new with the exception of two minor change models and one variation. This new line-up is divided into three major groups, those with an accent on habitability, those with an accent on running performance, and a new type aimed at younger customers, answering the needs of a wider range of users than ever before. Also, a recent push in the development of entirely new leisure-oriented diesel engines has resulted in the release of three new models, the SX-620, SX-343 and SX-200, making possible the sale of diesel-fitted Yamaha pleasure boats for the first time.



New model

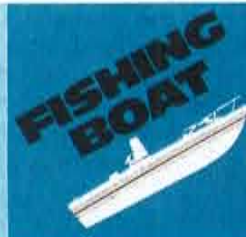


YAMAHA-28 Woody Saloon/Light Saloon

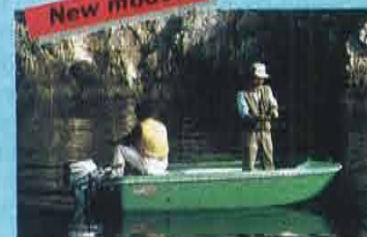


New model

FF23



New model



Tsurikko Taro 110FR



Minor change

YAMAHA-30S



Variation

FISH 22II O/B LTD



New model

UF20/20DX



New model

LS-23CR



New model

LS-20CR I/O, O/B, SP



SS-13RX

New model



Pacific Cruiser-30 Lounge

Minor change



SS-15RX



New model



YAMAHA-28
Woody Saloon/Light Saloon
•LOA: 8.55m •LWL: 7.10m •Breadth: 2.98m •Draft: 1.80m •Hull weight: 2,775kg (Woody Saloon) and 2,745kg (Light Saloon) •Sail area: 32.6m² •Recommended max. power: 16ps

YAMAHA-30S
•LOA: 8.97m •LWL: 7.34m •Breadth: 3.18m •Draft: 1.75m •Hull weight: 2,980kg •Sail area: 40.2m² •Recommended max. power: 16ps

LS-23CR
•LOA: 7.44m •Breadth: 2.79m •Depth: 1.41m •Hull weight: 1,550kg •Recommended max. power: 210ps •Fuel tank

capacity: 270 liters •No. of crew 10
LS-20CR I/O, O/B, SP
LOA: 6.17m •Breadth: 2.48m •Depth: 1.25m •Hull weight: 1,020kg (O/B), 930kg (I/O) and 970kg (SP) •Recommended max. power: 145ps (O/B) and 140ps (I/O and SP) •Fuel tank capacity: 180 liters •No. of crew: 9

Pacific Cruiser-30 Lounge
•LOA: 9.11m •Breadth: 3.26m •Depth: 1.73m •Hull weight: 2,500kg •Recommended max. power: 185 × 2ps •Fuel tank capacity: 500 liters •No. of crew: 12

SS-15RX
•LOA: 4.51m •Breadth: 1.78m •Depth: 0.80m •Hull weight: 280kg •Recommended

max power: 60ps •No. of crew: 4
SS-13RX
•LOA: 3.85m •Breadth: 1.59m •Depth: 0.66m •Hull weight: 180kg •Recommended max. power: 30ps •No. of crew: 2

FF23
•LOA: 7.00m •Breadth: 2.40m •Depth: 1.13m •Hull weight: 820kg •Recommended max. power: 115ps (single) and 60ps × 2 (twin) •No. of crew: 10 •Fuel tank capacity: 100 liters

FISH 22II O/B LTD
•LOA: 6.64m •Breadth: 2.18m •Depth: 0.98m •Hull weight: 615kg •Recommended max. power: 90ps •No. of crew: 7

UF20/20DX
•LOA: 6.00m •Breadth: 2.00m •Depth: 0.88m •Hull weight: 420kg/440kg (DX) •Recommended max. power: 60ps •No. of crew: 6

Tsurikko Taro 110FR
•LOA: 3.30m •Breadth: 1.37m •Depth: 0.57m •Hull weight: 75kg •Recommended max. power: 8ps •No. of crew: 3

Other Tsurikko Taro models are as follows:

Tsurikko Taro 90/90R
•LOA: 2.81m •Breadth: 1.28m •Depth: 0.46m •Hull weight: 46kg •Recommended max. power: 4ps •No. of crew: 2

Tsurikko Taro 100/100R
•LOA: 3.06m •Breadth: 1.35m •Depth: 0.49m •Hull weight: 53kg •Recommended max. power: 6ps •No. of crew 2

Tsurikko Taro 100P/100PR
•LOA: 2.97m •Breadth: 1.09m •Depth: 0.45m •Hull weight: 53kg •Recommended max. power: 4ps •No. of crew: 2 (This model can be folded double at the center for easy carry by a car.)

Tsurikko Taro 110/110R
•LOA: 3.30m •Breadth: 1.37m •Depth: 0.57m •Hull weight: 59kg •Recommended max. power: 8ps •No. of crew: 3