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# THE 1983 AMERICAN MODEL LINE-UP



## Meeting The Challenge Together

### Canadian Dealer Shows

For the upcoming season Yamaha Motor Canada held two regional Dealer Shows in early November, one in Vancouver, British Columbia for 171 Western Canadian Dealers as well as all Japan Trip Dealers and one Eastern Show held in Toronto, Ontario for 130 Eastern and French speaking Quebec Dealers.

The agenda included a Sunday evening 45 minute model audio visual presentation on a large 4 meter x 6 meter power screen.

Incorporated into the show were exciting "live" model reveals on many new '83 models.

Accompanying this powerful A/V presentation were speeches from Mr. Abe, President of YMCA, Mr. Nakagawa from YMC and Mr. Tony Cording, YMC National Sales Manager. Speech themes were centered around the main show theme "Meeting the Challenge Together" with emphasis on upgrading the quality of Yamaha's business, especially in this year's difficult economic climate.

The star of the new model line-up shows was, as expected, the Venture and Venture Royale. Dealers showed their appreciation with a standing ovation. As well, many other new models were very well accepted leading many dealers to comment this is Yamaha's best balanced line-up ever.

As part of each show, YMC conducted several audio visual seminars focusing on Sales, Parts, Accessories and Advertising Programs and Policies. In these shows were A/V presentations on two Yamaha Dealers who were very successful this past season with special programs on Learn to Ride and Special Scooter Promotions.

As well as motorcycles, trimotos and scooters, the all new line of outboards were also introduced and displayed to all attending dealers.

In summary, Yamaha Dealers and Yamaha Motor Canada alike were left with a feeling of confidence for a successful '83 Motorcycle selling season in Canada.



# Yamaha in "All Together Now" for the 1983 season

## Reno US Dealer Convention

Over 4,000 Yamaha dealers and dealership personnel attended the very successful Yamaha convention held by Yamaha Motor Corporation, USA in Reno, Nevada in early November. In the main presentation YMUS president, Mr. Kimura, expressed Yamaha's policies and strategies for the coming season. Mr. Kimura explained a "back to basics" approach to overcome the problems of these difficult economic times. The convention theme "Yamaha, All Together Now" reflected this comprehensive business plan and recognized the importance of Yamaha and its dealers working close together for a successful new season.

The stars of the meeting were the new Venture touring bikes. All dealers were very enthusiastic about the engineering, the styling, and the touring comforts built into these excellent new machines.

The dealers were also particularly pleased to see the largest 4-stroke enduro TT600, the new 4-stroke Tri-Motos, the Virago 500, the Midnights, the Seca 900, the new

Vision, and the redesigned Maxim 750 and Virago 920.

After attending the main presentation and listening to the Yamaha business plan, studying the new motorcycles in the display area, gaining information from the seminars for the many support programs, and being re-charged by the motivational words of Joe Girrard (the "world's greatest salesman"), the entire Yamaha dealer network left the convention enthusiastic and committed to the 1983 sales season.



Mr. Kimura, YMUS President



New model presentation begins!



The Virago 920



The Venture (XVZ12T)



The display area



The 4-stroke Tri-Moto range



Kenny Roberts and the Vision (XZ550)



Broc Glover on a YZ machine



Climax of the new model presentation



# The 1983 American Model Line-up

On top of the 1983 American model line-up was the Venture (XVZ12T/12TD), a new high technology tourer that featured an exciting DOHC V-4 1,198cc engine and a variety of sophisticated touring equipment and accessories including a computerized leveling suspension system, AM/FM stereo cassette and optional 40-channel CB radio (12TD type).

Along with this ultimate touring model, introduced also were the TT600 reputed to be the most powerful 4-stroke enduro bike ever built and the new 4-stroke Tri-Moto range to add a new dimension to 3-wheeling, as well as the deluxe scooter model XC180, the downsized V-twin model Virago 500 (XV500), the redesigned Midnight Viragos (XV920M/XV750M) and Midnight Maxim 750 (XJ750M), and the new IT250 and IT490 with a number of improvements.

In addition, included in the '83 American model line-up were the new Seca series (750/550/400), the new Vision (XZ550), the new Maxim series (750/650/550/400), the new XT series (550/250/200/125), the Heritage 650 Special, the new Seca 900 and the new Seca turbo; all of these models have been improved in both performance and quality.

## The XC180

### A deluxe scooter in a class by itself

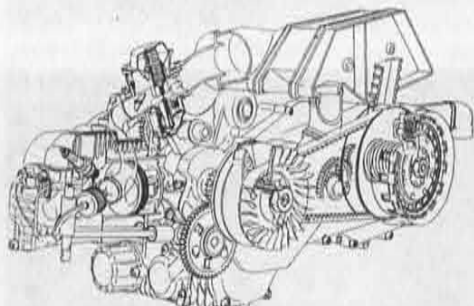
The new four-stroke XC180 has joined the Yamaha scooter line in style. This top-of-the-line model has been designed to change the ideas of non-motorcyclists' on two-wheel transportation.

It's not just another scooter but it's a machine so powerful and smooth that it makes you feel as if you are driving an automatic-transmission car.

The heart of this powerful yet easy to ride XC180 is a fully enclosed forced-air cooled 4-stroke, 171cc engine with balancer for smooth, quiet operation. In addition to the balancer, the valve tappets are operated hydraulically keeping the engine noise and vibra-



XC180



4-stroke OHV single-cylinder engine with V-belt automatic transmission

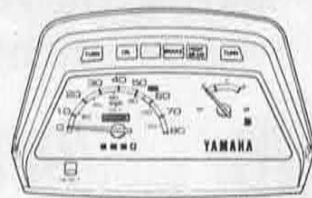
tion at a minimum. The XC180's maintenance-free, easy-to-ride characteristics come mainly from its electric start, CDI, fully automatic transmission and clean quiet V-belt drive. The power unit and train also ensure very smooth take-offs and excellent acceleration in city or on highway driving.

For assuring maneuverability and comfort, the front fork has a hydraulic bottom link suspension system. Furthermore, mechanical anti-dive along with leading-trailing

drum brakes ensures firm and safe stopping power.

The XC180 features an easy-to-read and informative instrumentation including the speedometer, fuel and oil level warning lamps, high beam indicator and resettable trip meter.

The XC180 has a lot of safety features, like



Instrument panel

unintentional take-off prevention system that kills the engine when throttle is opened without both the stands retracted. Other safety features include large, highly visible taillight and turn signals. And the starter motor will not turn unless either one of the brakes is on.

For those who drive cars but seldom ride motorcycles and are not used to hand-brakes, the XC180 is equipped with a foot operated rear brake.

The XC180 is also a handy scooter. It not only carries two adults, but is also equipped with built-in rear luggage carrier and front parcel compartment as standard equipment for more convenience.

All in all the XC180 feels more like an automobile than just a two-wheeler.

### XC180 SPECIFICATIONS

<b>Engine</b>	
Type	4-stroke, OHV, forced air-cooled single
Displacement	171.0 cc
Bore x stroke	63.0 x 55.0 mm
Compression ratio	10.0 : 1
Maximum torque (DIN)	1.5 kg-m (14.7 Nm)/ 6,500 rpm
Lubrication system	Wet sump
Oil tank capacity	1.3 lit.
Starting system	Electric
Ignition system	Transistor controlled
Transmission	V-belt automatic
<b>Chassis</b>	
Overall length	1,840 mm
Overall width	715 mm
Overall height	1,120 mm
Wheelbase	1,290 mm
Seat height	745 mm
Dry weight	115 kg
Fuel tank capacity	6.5 lit.
Suspension (front)	Bottom link
Suspension (rear)	Unit swing arm
Tire (front)	3.50-10-4PR
Tire (rear)	3.50-10-4PR
Brake (front)	Drum
Brake (rear)	Drum

\*Specifications are subject to change without notice.

## The Midnight Viragos — XV920M/XV750M

### Truly "Special"

Yamaha was the first manufacturer to create motorcycles that were good enough to be called "Special". That was 1978. Now that it's 1983, Yamaha thinks only "extra special" will do. So for the new model year, it has created the Midnight Viragos, 920 and 750.

These limited production motorcycles feature everything that makes a Virago special all by itself. Air cooled, SOHC V-twin engines with that look and feel like a real motorcycle engine should.

Sophisticated Monocross rear suspension and shaft drive. Clean, uncluttered styling. And a riding position that immediately feels



XV920M



XV750M

natural.

The Midnight Viragos offer a little bit more. They're hand-fitted with special black and gold pieces for a bold styling look that has

yet to be equalled by any other manufacturer.

Everything that should be black is black; tank, engine and fenders. Even the exhaust pipes feature a special black chrome developed by Yamaha that won't turn gray with heat and time.

Gold trims the headlight rim, the carburetor covers, the wheels and the brake disc. Yamaha created its own processes to produce these pieces, too. The result is a look that's the closest thing to 24-karat gold. Of course, there's another reason riders will think the Midnight Viragos are extra special: They're built by Yamaha!

## The Midnight Maxim 750 — XJ750M



XJ750M

DOHC 748cc in-line four-cylinder engine produces lots of power over a broad, usable range of rpm. And YICS technology boosts combustion efficiency for even more power. Thanks to innovative engineering, which places the alternator behind the crankshaft, this four-cylinder engine is also just about as narrow as a twin. An efficient shaft drive system converts the engine's power into forward motion. It

### Bold performance

Nobody can make a motorcycle look special the way Yamaha can. The Midnight Maxim 750 is an outstanding example.

The new Midnight Maxim 750 is a limited production model meticulously finished in black and gold. The mixture of black chrome and paint and several innovative gold processes makes a statement that everyone on the street will recognize.

The Midnight Maxim backs up that statement with bold performance, too. Its

minimizes power losses for improved performance and fuel economy while ensuring that power is transferred to the rear wheel smoothly.

Like the standard Maxim 750, the Midnight Maxim features clean, traditional styling for 1983.

### XV920M/XV750M/XJ750M SPECIFICATIONS

	XV920M	XV750M	XJ750M
<b>Engine</b>			
Type	4-stroke, SOHC, V-twin	4-stroke, SOHC, V-twin	4-stroke, DOHC, four
Displacement	920 cc	748 cc	748 cc
Bore x stroke	92.0 x 69.2 mm	83.0 x 69.2 mm	65.0 x 56.4 mm
Compression ratio	8.3 : 1	8.7 : 1	9.2 : 1
Maximum torque (DIN)	7.8 kg-m (76.4 Nm)/ 5,000 rpm	6.4 kg-m (62.7 Nm)/ 6,000 rpm	6.3 kg-m (61.7 Nm)/ 7,500 rpm
Lubrication system	Wet sump	Wet sump	Wet sump
Oil tank capacity	3.6 lit.	3.6 lit.	3.5 lit.
Starting system	Electric	Electric	Electric
Ignition system	Transistor controlled	Transistor controlled	Transistor controlled
Transmission	5-speed	5-speed	5-speed
<b>Chassis</b>			
Overall length	2,230 mm	2,230 mm	2,195 mm
Overall width	805 mm	805 mm	830 mm
Overall height	1,160 mm	1,160 mm	1,175 mm
Wheelbase	1,520 mm	1,520 mm	1,445 mm
Seat height	750 mm	750 mm	755 mm
Dry weight	220 kg	212 kg	218 kg
Fuel tank capacity	14.5 lit.	12 lit.	17 lit.
Suspension (front)	Telescopic fork, air adjustable	Telescopic fork	Telescopic fork
Suspension (rear)	Monocross suspension	Monocross suspension	Swing arm
Tire (front)	3.50H19-4PR	3.50H19-4PR	3.25H19-4PR
Tire (rear)	130/90-16 67H	130/90-16 67H	130/90-16 67H
Brake (front)	Disc	Disc	Dual disc
Brake (rear)	Drum	Drum	Drum

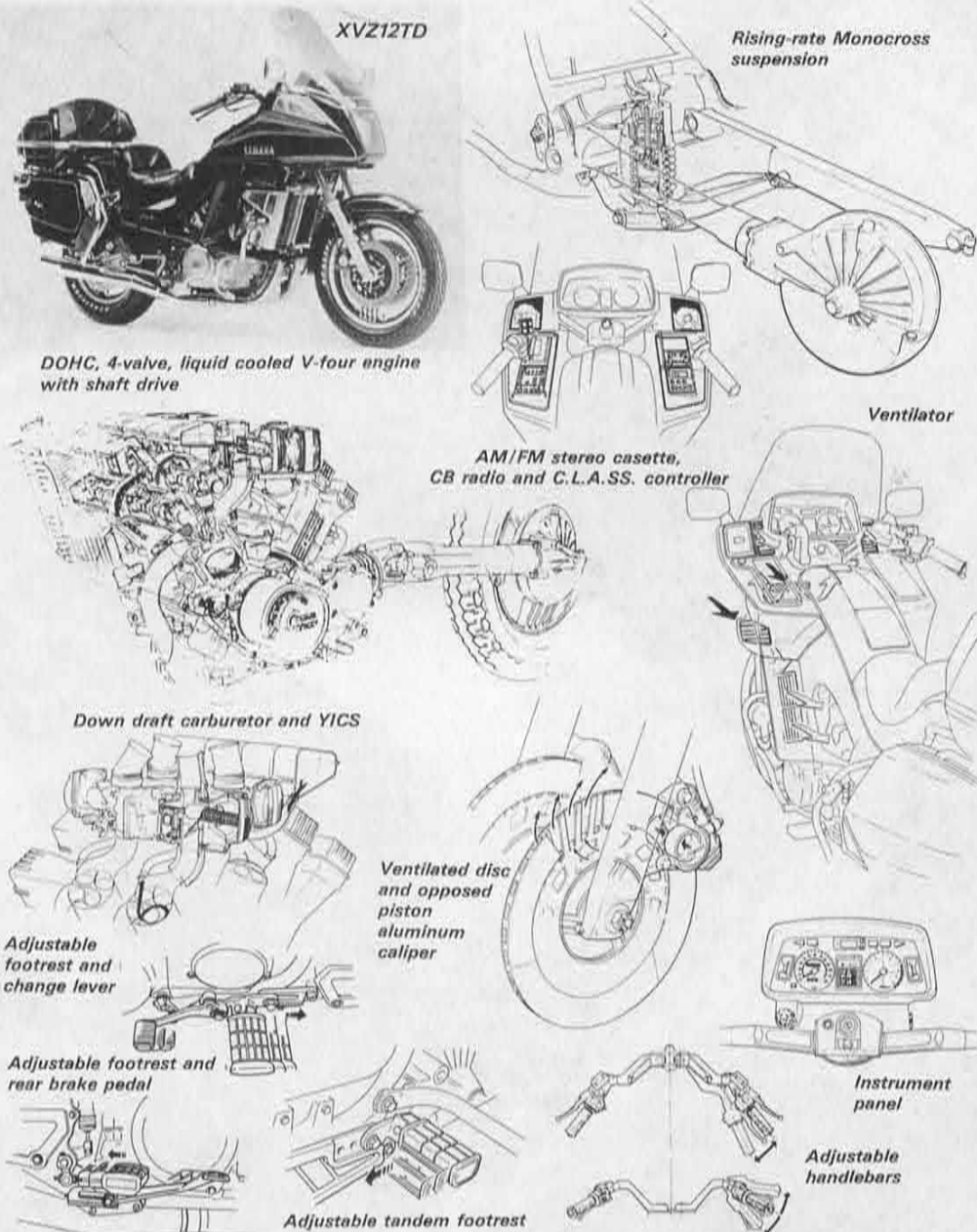
\*Specifications are subject to change without notice.



# The ultimate tourer built the Yamaha way

## The Venture Royale (XVZ12TD)

## The Venture (XVZ12T)



### The '83 Yamaha Venture isn't just another touring bike; it's a bike built specially for touring!

#### All-new engine and chassis

The heart of any great touring bike is its engine. The Venture is no exception. It features a liquid-cooled, 1,198cc V-4 with four-valve cylinder heads. This is the largest and most powerful engine ever built by Yamaha. The extraordinary smoothness of the 70-degree V-4 is reinforced by a gear-driven engine balancer and rubber engine mounts. Its powerband is calibrated strictly for touring with plenty of torque at low rpm and outstanding midrange power. Fuel economy is excellent, too, thanks to variable venturi carburetors, YICS induction and a new electronically controlled ignition advance. This engine rolls along silently and smoothly at cruising speed, yet it has the kind of power that thrusts you forward with just a twist of the throttle. A hydraulically activated clutch connects the V-4 to the Venture's shaft drive system. The shaft drive incorporates no less than two dampers to absorb drivetrain shock and make power delivery as smooth and direct as possible.

The Venture features Yamaha's rising-rate Monocross rear suspension to provide an outstanding riding comfort, a lower center of gravity, and optimum suspension control. Suspension action can be tuned for conditions thanks to air-assisted and four-position adjustable damping.

The air-assisted front forks with anti-dive resists bottoming under heavy braking. An equalizer line makes air adjustment simple and easy.

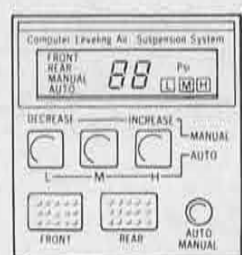
The choice of a V-4 engine means the Venture's double cradle frame can position the engine low for responsive handling while

providing plenty of cornering clearance. The Venture also distributes weight by locating the 20 liter fuel tank beneath the seat for an even lower overall center of gravity. As a result, the Venture is one touring bike that can be enjoyed on back roads, too.

For easier braking operation the Venture features the unified brake system which links the action of one front disc with the rear disc brake.

It uses opposed piston aluminum calipers with semi-metallic pads for optimum performance in all conditions. Also, in an innovative design which reduces weight, both the twin front discs and the single rear disc are ventilated for improved heat dissipation.

The Venture feels great when you're in the saddle. Part of the reason is the low,



Computer leveling air suspension system (XVZ12TD)

The system automatically controls front and rear suspension settings at any of three preset levels — L, M and H.



790mm seat height, adjustable handle-bars and adjustable footpegs (even the passenger's footpegs are adjustable). The rest of the reason is the bike's light, responsive feel.

#### Upgraded equipment and luxury accessories

A true touring bike requires more than just sophisticated hardware. It must have sophisticated accessories as well.

The Venture's touring gear begins with a fairing designed in the wind tunnel for optimum rider protection. It features no less than three sets of vents for riding comfort plus a headlight adjustment knob within easy reach and plenty of storage capacity. The saddlebags are detachable for riding convenience, with sturdy latches and a special design to allow them to be opened on the bike without spilling gear on the ground. Thanks to the Venture's single-shock rear suspension, the bags fit close to the centerline of the motorcycle, meaning better weight distribution for better handling. Furthermore, no clumsy, and unsightly brackets are required to attach the bags, because the Venture's frame incorporates the mounting points. As a result, the Venture looks as good without the saddlebags as it does with them — another advantage of designing motorcycle and touring accessories together from the beginning.

The large travel trunk can also be detached from the motorcycle. It features a padded passenger backrest and is large enough to hold two full-face helmets at once.

The last requirement of a full-fledged touring bike is to keep you in touch with all its vital systems. That's why the Venture features Yamaha's CMS, a computerized monitoring system that keeps track of all the motorcycle's subsystems.

Of course, some people aren't satisfied with just the last word in touring bikes; they demand the ultimate in luxury features as well. And that's where the Venture Royale comes in. It's the ultimate touring bike.

There's more to the Royale than its special two-tone body-work, too. Like C.L.A.S.S., a computer leveling air suspension system which automatically controls front

and rear suspension settings at any of three preset levels (when the bike is stationary). Or you can manually fine-tune suspension air pressure to the setting you prefer. The control unit, with its large LED display, is located on the fairing within easy reach. The Royale also features the latest in communications centers: AM/FM stereo cassette and optional 40-channel CB and intercom.

The 12-watt amplifier for the audio system is located on the left side of the fairing. It provides auto-reverse and has metal tape capabilities, while the radio can be preselected for five FM stations and five AM stations. Weatherproof speakers are located at both sides of the fairing.

The CB-radio naturally has 40-channel capability. Also it will select channel 9, the emergency channel, automatically.

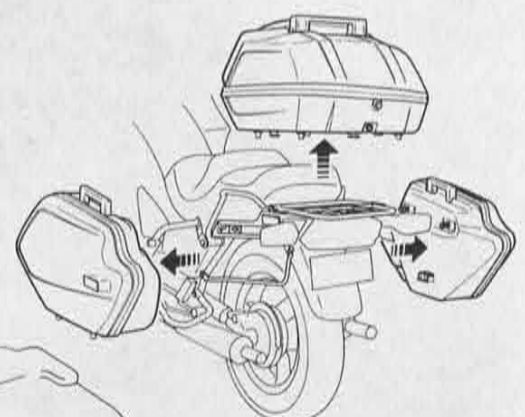
The stereo, CB-radio and intercom can all be controlled through a handlebar-mounted switch. Volume adjusts automatically to compensate for ambient noise levels. All the components are detachable for security and all electrical connections are gold-plated to resist corrosion.

Yamaha has engineered the Venture with all the features that the ultimate touring bike should have. Yet this bike is remarkable in its performance as well as its features. It is smooth and powerful for long-distance highway cruising. Yet it's responsive and lightweight for those sidetrips off the main road. That's why the '83 Yamaha Venture is the motorcycle for touring riders who want to see more of the country than just the interstate.

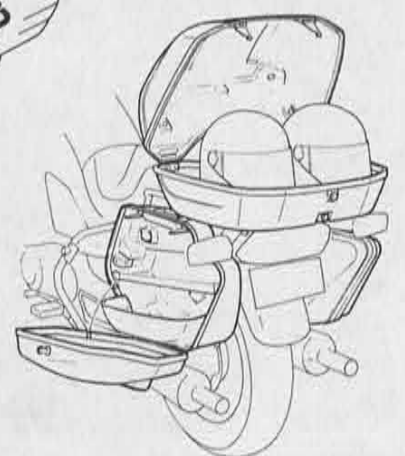
#### XVZ12TD/XVZ12T SPECIFICATIONS

Engine	
Type	4-stroke, DOHC, 4-valve, V-four
Displacement	1,198 cc
Bore x stroke	76.0 x 66.0 mm
Compression ratio	10.5 : 1
Maximum torque (DIN)	10.4 kg-m (101.9 Nm) / 5,000 rpm
Lubrication system	
	Wet sump
Oil tank capacity	4.5 lit.
Starting system	
	Electric
Ignition system	
	Transistor controlled
Transmission	
	5-speed
Chassis	
Overall length	2,455 mm
Overall width	920 mm
Overall height	1,525 mm
Wheelbase	1,617 mm
Seat height	790 mm
Dry weight	314 kg (304 kg)
Fuel tank capacity	20.0 lit.
Suspension (front)	Telescopic fork
Suspension (rear)	Monocross suspension
Tire (front)	120/90-18 65H
Tire (rear)	140/90-16 71H
Brake (front)	Dual disc
Brake (rear)	Disc

\*Specifications are subject to change without notice.  
/ / shows the specifications of XVZ12T



Detachable saddlebags and travel trunk



Large capacity travel trunk





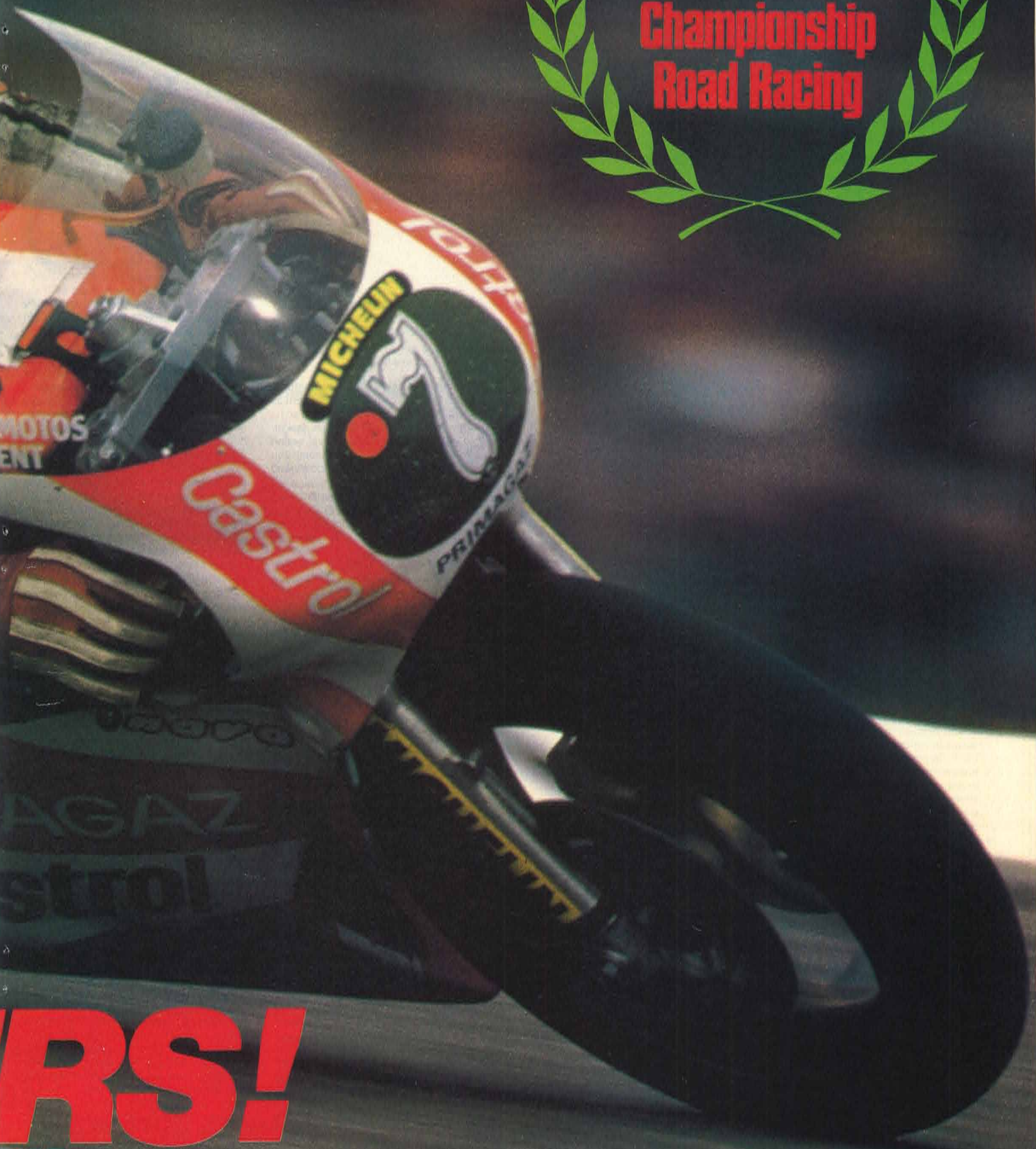
# THE WINNER



*J. L. Tournadre and Yamaha TZ*



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250



# The 1983 American Model Line-up

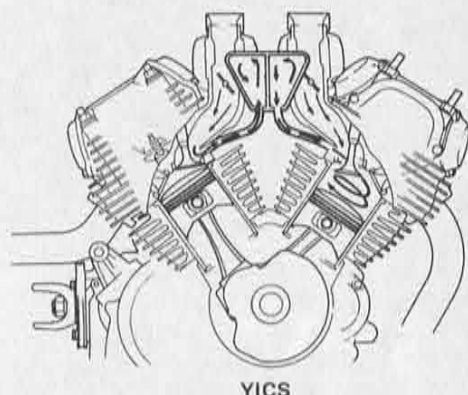
## The Virago 500 (XV500)

### Downsizing the V-twin tradition

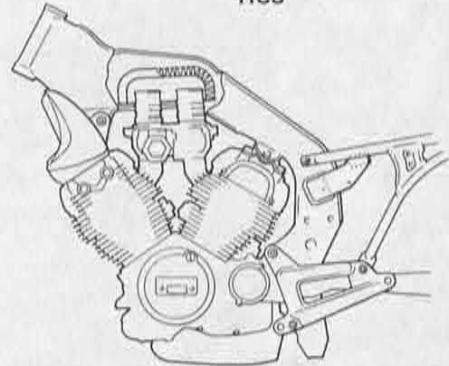
Think of the brand new Virago 500 as a little piece of a grand tradition — the V-twin tradition.

The new Virago's 70-degree, 494cc SOHC V-twin produces power in large pulses that you can feel at low speed, the kind of power that propels the bike away from a stoplight effortlessly. And the power is spread over a wide range, as well.

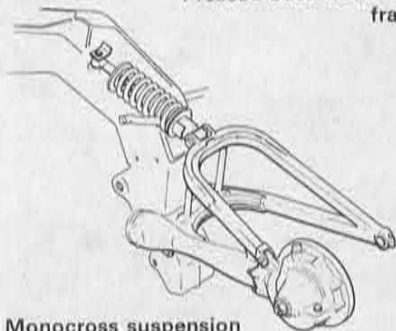
The Virago 500's engine shares the power-pulse feeling of the Virago 920 and Virago 750. The Virago 500 features downdraft variable venturi carburetors and YICS technology to boost performance. Mean-



YICS



Pressed back bone type frame



Monocross suspension



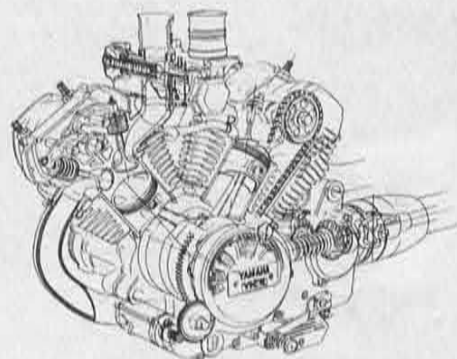
XV500

while the internals of the engine and gear-box have been carefully engineered to increase efficiency without affecting reliability. In fact, the Virago is so well designed, it doesn't need an internal balancer to ensure smooth running.

Like the larger Viragos, the 500 uses a hollow, pressed-steel backbone frame, but houses the air filter directly over the carburetors. The engine is suspended from this frame, which not only provides an uncluttered view of the motor, but also enables the engine to be positioned low for more responsive handling. This design also helps reduce weight, which helps explain the Virago 500's slim figure, with a weight of only 173 kg (dry).

Just like the larger Viragos, the 500 features sophisticated detailing, like shaft drive and Monocross rear suspension. There's a front disc brake for stopping power and a rear drum brake for simplicity. There are a lot of things to say about the Virago 500 that can also be said about the Virago 920 and Virago 750. It has the V-twin engine, with that special feel that makes the rider as one with his machine. It has the kind of power that is perfect for the kind of riding most people do. The riding position is truly natural. The seat position is low and comfortable—the lowest in its class, in fact.

Everything about the Virago 500 is meant to remind the rider of the larger Viragos. Except the size, and the price.



V-twin engine with down draft carburetors and shaft drive

### XV500 SPECIFICATIONS

Engine	
Type	4-stroke, SOHC, V-twin
Displacement	494 cc
Bore x stroke	73 x 59 mm
Compression ratio	9.3 : 1
Maximum torque (DIN)	4.2 kg-m (41.2 Nm)/7,000 rpm
Lubrication system	Wet sump
Starting system	Electric
Ignition system	Transistor controlled
Transmission	5-speed
Chassis	
Overall length	2,135 mm
Overall width	825 mm
Overall height	1,160 mm
Wheelbase	1,410 mm
Seat height	745 mm
Dry weight	173 kg
Fuel tank capacity	11 lit.
Suspension (front)	Telescopic fork
Suspension (rear)	Monocross suspension
Tire (front)	3.00S-19-4PR
Tire (rear)	130/90-16 67S
Brake (front)	Disc
Brake (rear)	Drum

\*Specifications are subject to change without notice.



IT490

## The IT250 and IT490

### More power and better handling

From the ISDE to the weekend enduro, the Yamaha IT off-road models have made their mark. They are truly remarkable machines that perform even under the most adverse conditions. And for 1983, they feature a number of technical improvements including state-of-the-art suspension.

#### IT250

At the rear, the new IT250 now features the same Monocross rising rate system as the 1983 YZ machines.

This new rear suspension system is designed to provide more progressive action throughout the stroke. That means you can ride this IT faster over a wide variety of terrain.

The Monocross is smaller, lighter and more compact, combined with a re-designed pivot and strut system, the shock sits lower in the frame, thus lowering the center of gravity.

Up front, the IT250 now has YZ-style 43mm forks for a smoother, more precise ride.

At the heart of the IT250 is an air-cooled 246cc reed-valve Torque Induction two-stroke single. This engine features YEIS (Yamaha Energy Induction System) for added low and mid-range power. And there's a six-speed transmission with ratios selected to match the power.

Other features include breakerless Capacitor Discharge Ignition for a hot, reliable spark. Quick-release wheels with special rim-saver tires. A new throttle that features fewer moving parts and is less vulnerable. Easy-to-read ISDE instrumentation. Also there is handy tool pouch.

For added rider maneuverability, the handlebars have been moved forward 2.5cm, and the seat is a YZ/works-style.

#### IT490

In addition to the gains in power, this new



IT250

machine has also inherited the new rising rate Monocross rear suspension system from the 1983 YZ250 and YZ490.

These changes have been made to make this big machine more at home anywhere; from the woods to the desert or even in the mud.

The 487cc engine has a broad, smooth powerband with plenty of bottom and mid-range torque — when and where you need it.

This engine is teamed with a wide ratio five-speed gear box that features ratios specially selected to make the most of the torque curve.

The new rising rate rear suspension system features a smaller, lighter, more compact Monocross. It's combined with a re-designed pivot and strut system that allows the shock to sit lower in the frame, thus lowering the center of gravity. This new system provides much more progressive action throughout the stroke. That translates into better handling over a wide variety of terrain.

Up front, the IT490 now features YZ-style 43mm forks for smoother action.

Other significant changes include the handlebars being moved 2.5cm forward for added maneuverability, and the addition of a YZ/works-style seat for comfort and protection. The IT490 also features a new throttle that's simpler and less vulnerable. The air filter/air box has been moved under the seat. It's a superior location providing easy access for quick servicing.

Other IT features include quick-change wheels. A handy tool kit. Heavy-duty knobby tires. YEIS (Yamaha Energy Induction System). Double-leading-shoe front brake and a full-floating rear brake for maximum stopping power.

### IT250/IT490 SPECIFICATIONS

	IT250	IT490
Engine		
Type	2-stroke piston-reed valve	2-stroke piston-reed valve
	Single	Single
Displacement	246 cc	487 cc
Bore x stroke	68.0 x 68.0 mm	87.0 x 82.0 mm
Compression ratio	7.7 : 1	6.7 : 1
Maximum torque (DIN)	3.78 kg-m (37.0 Nm)/7,000 rpm	5.5 kg-m (53.9 Nm)/6,000 rpm
Lubrication system	Premix	Premix
Starting system	Kick	Kick
Ignition system	C.D.I.	C.D.I.
Transmission	6-speed	5-speed
Chassis		
Overall length	2,190 mm	2,190 mm
Overall width	870 mm	870 mm
Overall height	1,300 mm	1,300 mm
Wheelbase	1,485 mm	1,485 mm
Min. ground clearance	340 mm	340 mm
Dry weight	104 kg	108 kg
Fuel tank capacity	13.5 lit.	13.5 lit.
Suspension (front)	Telescopic fork	Telescopic fork
Suspension (rear)	Monocross suspension	Monocross suspension
Tire (front)	3.00-21	3.00-21
Tire (rear)	140/90-18	150/80-18
Brake (front)	Drum	Drum
Brake (rear)	Drum	Drum

\*Specifications are subject to change without notice.



# Dual-purpose but no compromises

## THE YAMAHA XT600Z TÉNÉRÉ

A powerful, reliable dirt/road performer



Compromise is a word that has been erased from the dictionaries used by today's designers of dual-purpose "enduro" motorcycles. In the past, these on/off-road machines were acceptable if they performed reasonably on short road runs and could cope with average dirt-riding terrain. That, however, is no longer the case. Off-road enthusiasts have become vastly more sophisticated in the past decade and they demand machines that match up to their higher ideals. Today's "enduro" bike must combine the qualities of a high-speed road cruiser with a real potential for competition success.

### The "state of the art" enduro machine

The definitive example of a dual purpose machine for the nineteen-eighties is the Yamaha XT600Z Ténéré (pronounced Tay-nay-ray). It features the largest capacity, most powerful single cylinder four-stroke on the market and houses it in a genuine enduro chassis with monocross rising rate suspension. The machine is completed by full performance equipment which includes hydraulic front disc brake, a quartz-halogen headlamp and a heavy-duty tubular rear carrier rack.

A large-capacity fuel tank allows a cruising range to match the Ténéré's 160Km/h (100mph) plus speed potential.

Yamaha four-strokes have scored more wins than any other motorcycle in the world's toughest race ... the 10,000Km Paris-Dakar marathon. Three weeks of flat-cut racing from the French capital, across the Sahara desert and out to Dakar in Senegal, westernmost point of the African continent. The Yamaha XT500 has several outright and class wins to its credit while the XT550 — direct predecessor to the Ténéré — had a healthy lead last year before being eliminated by a crash in the final stages.

It is from this race, in fact, that the Ténéré derives its name. Aptly so, considering that the lessons learned in this most gruelling of all two-wheeled events have been instrumental in making the XT600Z the "state of the art" enduro machine.

The Ténéré is one of the most desolate parts of the whole North African desert wasteland. A thousand-mile stretch between Agades, the door to the Sahara, and Djanet in Southern Algeria... an important link in the road system which has carried traders for centuries along the length of the Niger from West Africa and across the Sahara to the Mediterranean coast and Europe. Camels and caravans have now given way to the huge "land train" trucks grinding their way across the empty landscape. Plus, for just three weeks each year, over a hundred off-road racing cars and motorcycles maintaining a 100mph average over certain sections! The ability to perform

for literally thousands of miles on and at racing speeds through this sort of terrain is what has given Yamaha the edge with the XT600Z Ténéré. The kind of conditions experienced in the Paris-Dakar classic just cannot be duplicated in normal testing. The Ténéré's abilities as both a high-speed road machine and a superlative dirt performer could not have been proved in any more dramatic setting than the rugged desolation of the Sahara desert.

### Engine Close-up

The XT600Z Ténéré power unit is, in fact, simply an enlarged version of the successful, reliable and high-performance XT550 motor. Bore and stroke are now 95 x 84mm to give a displacement of 595cc and make it the largest, most powerful four-stroke single available in a dual-purpose on/off-road machine.

The inherent vibration of the large capacity, single cylinder engine is damped out by a contra-rotating balance shaft geared directly to the crankshaft and mounted just behind it. A single overhead camshaft is driven from the crank via a Hy-Vo chain (with automatic tensioner) and operates four valves. This twin inlet, twin exhaust valve system allows a much greater port area without affecting combustion chamber shape. In addition, higher rpm is permitted by the fact that valve springs can better deal with the lighter weight of two smaller components rather than the bulk of a single large valve. The XT600Z features larger exhaust ports than the XT550 as well as an increase in carburetor bore. The twin carbs of the YDIS system have 27mm throats on the XT600Z.

The XT600Z features maintenance-free capacitor discharge electronic ignition plus 12 volt battery and alternator unit for the lighting and other street equipment.

Electronic ignition means always-precise ignition timing and this links with an automatic decompressor unit to make kickstarting the XT600Z a single operation. A cable links the kickstarter gear to the camshaft valve lifters and raises the exhaust valve a fraction to decompress the engine as the kickstarter is depressed.

As on the XT550, lubrication is via a dry dump system but the XT600Z departs from the integral chassis tube/oil tank that was a feature of both the XT500 and XT550. A separate oil tank is mounted low down between the twin seat tubes, just behind the single rear shock absorber. The reason is to give a lower center of gravity to aid the handling of this more competition-oriented machine.

Other technical features include:

- \* A three-core type oil cooler
- \* Added volume of the new muffler system
- \* Integral 5-speed transmission
- \* Final drive via a sealed O-ring chain
- \* A large alloy plate engine sumpguard

### Chassis Close-up!

Most obvious and significant feature of the XT600Z Ténéré and the recently introduced TT600 is that they are the first dual purpose on/off road machines — whether two-stroke or four — to use the latest rising-rate version of Yamaha's famous monocross suspension system. This layout, with its ball-crank and l-links for added leverage, plus an aluminum alloy single box section swinging arm to reduce unsprung weight, has previously only been used on the YZ motocrossers and the IT "professional competition" enduro two-strokes. It is a system which has resulted in numerous 500cc Grand Prix wins and two World 250cc Motocross Championships in the last two seasons! In an enduro application, the system has been used on the Gold Medal winning Yamahas in the International Six Days Enduro.

Also similar to the IT490 are the large 41mm diameter front fork stanchions which resist deflection when encountering obstacles at high off-road speeds. The action of these air-assisted, hydraulic telescopic forks is smoothed out by the use of floating pistons which reduce internal friction.

Another obvious innovation on the XT600Z is the use of a large diameter, hydraulic disc brake at the front ... the first time that Yamaha has used this type in an off-road application. The disc has expansion slots to obviate distortion under hard use and semi-metallic pads give the brake stopping power in all weather or ground conditions. A lightweight operating caliper is mounted behind the fork leg for better protection and lighter steering at slow speed.

Hydraulic lines operating the brake are of aircraft-quality with Teflon inner tubes encased in stainless steel mesh. These withstand the hydraulic pressure better than conventional lines and give a firmer, more positive braking feel. They also stand up better to the rigours of off-road riding.

The rear brake of the XT600Z is a drum of Yamaha's patented labyrinth seal design which effectively keeps out mud, dust or water. A completely weatherproof brake. Other technical features include:

- \* Special tread pattern tires
- \* Large flexible plastic fenders
- \* A high-powered quartz-halogen headlamp
- \* A deeper-cushioned seat
- \* A strong tubular carrier rack
- \* Increased suspension travel of front and rear wheels

### A three model choice at the top of the Yamaha enduro range

The advent of the fabulous Yamaha XT600Z Ténéré means that the company now feature a trio of well-proven and successful models at the large-capacity end of their four-stroke enduro range.

## Yamaha boats fit for the Queen

When the Queen and Duke(s) of the United Kingdom visited Fiji on October 30th this year, their royal barge was a 23-foot Yamaha FRP boat built specially for the occasion by the Burns Philip (SS) Co. Ltd's motor division at Nabua. In all, five W23's were built to take part in the ceremonies, by Burns Philip, a company that also builds 10 and 15 foot boats for fishermen. Construction of the new W23's was supervised by Yamaha engineer, Mr. Toyama. The official boats were also powered by reliable Yamaha outboard motors.

Still available is the machine that began it all: the Yamaha XT500. It combines the traditional virtues of rugged build and simplicity with a performance that has delivered a GP motocross victory and multiple success in the Paris-Dakar marathon.

Last year, Yamaha introduced the four-valve XT550 single, on which the XT600Z Ténéré engine is based. The 550 version, winner of the open class of the European Enduro Championship is still a significant model in the Yamaha range. Particularly with those enduro enthusiasts who also spend a lot of time riding the roads. Its sleek, integrated styling and the monocross chassis with rigidly-triangulated rear sub-frame make it a superb street machine with genuine off-road capabilities.

The incredible XT600Z Ténéré is the other side of this particular coin.

### XT600Z TÉNÉRÉ Specifications

Engine	
Type	4 stroke, SOHC, single
Displacement	595 cc
Bore x Stroke	95.0 x 84.0 mm
Lubrication system	Dry sump
Starting system	Kick
Ignition system	C.D.I.
Transmission	5-speed

### Dimensions

Overall length	2,220 mm
Overall width	890 mm
Overall height	1,270 mm
Wheelbase	1,430 mm
Min. ground clearance	265 mm
Seat height	890 mm
Tyre (front)	3.00-21
Tyre (rear)	4.60-18
Brake (front)	Disc
Brake (rear)	Drum

\*Specifications are subject to change without notice.

## Paris Motor Show Sept. 30 to Oct. 10



**From France:** The Yamaha 1983 European Model Range which was unveiled and got into the limelight during the Cologne Motor Show (IFMA), was talked about again during the Paris Motor Show which was held for the period from Sept. 30 through Oct. 10.

The Yamaha stand arranged by Sonauto Yamaha presented the 1983 European models in six different zones, each of which featured a film studio and screen as follows:

Zone 1: film studio — Paris Dakar Rally with the XT range and a film on

the last Paris Dakar Rally.  
Zone 2: film studio — Le Touquet with the DT and IT ranges and a film on the famous sand enduro event of Le Touque.

Zone 3: film studio — Motocross with the YZ and PW ranges and a film on motocross racing.

Zone 4: film studio — City with the Beluga, SR125, RX80SE and XV1000SE, and a film on the Beluga (produced by Sonauto Yamaha).

Zone 5: film studio — Road with the XJ and XZ ranges and two films on Yamaha Technology.

Zone 6: film studio — Racing with the RD — LC and TZ ranges, and a film on the Sonauto Yamaha Gauloises RD350LC Cup.

This unique inventive method of presentation helped greatly to make the Yamaha models more appealing to a great number of visitors.



# The 1983 American Model Line-up

## The TT600

More power on the ground

Power is what big-bore, 4-stroke dirt bikes are all about. But for 1983, that power has finally been matched by a chassis that incorporates motocross-proven technology. The result: the '83 Yamaha TT600.

Yamaha YZ motocross bikes with a single shock absorber adjustable for preload damping. The air-assisted front forks feature 43mm diameter fork tubes for good handling, aluminum sliders for light weight and a full 300mm of travel. The Yamaha TT600 is prepared to the IT specifications of Yamaha's famous line of competition enduro bikes with a tool bag, rear fender with taillight, headlight and plastic fuel tank. It also has all the other great IT features, like quick-release axles, snail-cam chain adjusters, side-pull throttle, handgrip brush guards, lightweight wheels and an O-ring chain. The front brake incorporates double-leading shoes for extra stopping power and both brakes feature magnesium backing plates to reduce unsprung weight. There's no question that the TT600 will offer the kind of off-road fun that you expect from a big four-stroke dirt bike. But this is one 4-stroke dirt bike that can put its power on the ground. So when you put your race helmet on, the TT600 is ready to perform.



### An exciting terrain attacker

The TT600 is the right bike for dirt riders serious about 4-stroke performance. Yamaha's big SOHC single began the revival of enthusiasm for 4-stroke power in the dirt and now it's leading the way again with even more power. Based on the XT550 engine, the TT motor has been bored 3.0mm larger for a displacement of 595cc. There is more torque than ever before: 5.05kg-m/5,500rpm. Yamaha's unique Duo Intake System with its four-valve cylinder head and special two-barrel carburetor (1mm larger than the XT550's) ensure that the power is spread over a broad range. Yet the engine still produces power smoothly thanks to its single gear-driven counter-balancer. In addition, the TT600 is lighter than the XT550's. An aluminum kick start arm and magnesium crankcase cover contribute to this weight reduction, as does comprehensive detailing of the engine's components themselves, especially the crankshaft and carburetor.

The TT600 also distributes its weight in the right places. It uses a dry sump oiling system (as big Yamaha singles always have) in order to locate the engine as low as possible in the frame for better handling without compromising ground clearance.

For '83, however, a new oil tank has been positioned above the swing-arm pivot for an even lower center of gravity and improved fore-and-aft weight distribution.

The Yamaha TT600 is the first large displacement, 4-stroke dirt bike to match its engine with a chassis that can claim true motocross sophistication. Every aspect of the chassis, from geometry to detailing, has been optimized for outstanding performance. The frame itself is constructed from high-tensile steel for maximum rigidity with no sacrifice in weight. For the same reason, the TT600 employs an extruded aluminum swing-arm.

The suspension pieces are just as sophisticated. The rear utilizes the same rising-rate Monocross system seen on the

### TT600 SPECIFICATIONS

<b>Engine</b>	
Type	4-stroke, SOHC, 4-valve, single
Displacement	595 cc
Bore x stroke	95.0 x 84.0 mm
Compression ratio	8.5 : 1
Maximum torque (DIN)	5.05 kg-m (46.1 Nm) / 5,500 rpm
<b>Lubrication system</b> ..... Dry sump	
Oil tank capacity	1.8 lit.
Starting system	Kick
Ignition system	C.D.I.
Transmission	5-speed
<b>Chassis</b>	
Overall length	2,210 mm
Overall width	880 mm
Overall height	1,240 mm
Wheelbase	1,485 mm
Min. ground clearance	300 mm
Dry weight	123 kg
Fuel tank capacity	11 lit.
Suspension (front)	Telescopic fork
Suspension (rear)	Monocross suspension
Tire (front)	3.00-21-4PR
Tire (rear)	150/80-18-4PR
Brake (front)	Drum
Brake (rear)	Drum

\*Specifications are subject to change without notice.

## The Tri-Moto line-up YTM225DX/ YTM200E/ YTM200

### A new dimension in 3-wheeling

For 1983 three new 4-stroke models have joined the already-popular Yamaha Tri-Moto line, to meet the needs of a rapidly growing number of three-wheel enthusiasts.

### YTM225DX

At the top of the line is the new YTM225 Deluxe. This four-stroke Tri-Moto is the most versatile and deluxe machine designed for the kind of riding most enthusiasts prefer. It's a Tri-Moto built for fun, whether you're riding on a trail, sand dune or on the farm.

The heart of this new machine is a 223cc SOHC single derived from the XT200 engine. It features all the features three wheel enthusiasts have come to expect: electric starting, CD Ignition and a gear-driven engine balancer to smooth power delivery. It also has a special primary and secondary clutch system to make take-offs and shifting especially smooth. Yamaha's proven snorkel-type air intake keeps the engine running in wet and muddy conditions, while the ignition runs within a special engine oil bath to protect it in the worst of conditions.

The chassis of the YTM225 Deluxe is just as special. It uses a unique double-cradle frame for a wide rear track and sufficient weight over the front wheel for precise steering at low speeds and light handling at high speeds. A telescopic fork is naturally standard equipment, but the YTM225DX also features Monocross rear suspension with adjustable spring preload. Furthermore, the Deluxe has Yamaha's unique shaft drive system, for reliable, virtually maintenance-free power delivery. As with other Yamaha products, the details of the YTM225DX have been engineered just as carefully as the rest of the machine. The tires are wide, with aggressive tread patterns. The shift pattern locates neutral at the bottom for stumble-free shifting from

first to second. Also featured on it is a YZ-style seat.

### YTM200E/YTM200

The YTM200E also comes with lots of standard features, but in this case they are designed exclusively for the utility market. The YTM200E is the workhorse of the Tri-Moto line.

Like the 225 engine, the YTM200E's single-cylinder four-stroke is derived from the XT200, and it has all the features necessary to make it both reliable and easy to live with, like CD Ignition, electric starting, snorkel-type air intake, a gear-driven engine balancer, and front suspension. The chassis incorporates front and rear racks as standard equipment, plus a trailer hitch. The tires are specially designed for utility use. What isn't so obvious, however, are the things you can't see that make the YTM200E ideal for a working environment. For example, shaft-drive, with a rear-end ratio low enough for hauling heavy loads; a large 14 amp-hour battery, and a compact size that makes it easier to handle than the competition.

The standard Tri-Moto 200 is also a tough machine. It has plenty of low-speed torque, so it's easy to ride. It also has an automatic compression release connected to the recoil starter. Also the standard #520 O-ring chain with Yamaha's special chain adjustment system will provide long service with minimal maintenance. Overall, the YTM200 offers all the benefits of four-stroke power in a package that's easy to handle and easy to afford.



### YTM200/YTM200E/YTM225DX SPECIFICATIONS

	YTM200	YTM200E	YTM225DX
<b>Engine</b>			
Type	4-stroke, SOHC, single	4-stroke, SOHC, single	4-stroke, SOHC, single
Displacement	196.3 cc	196.3 cc	223 cc
Bore x stroke	67.0 x 55.7 mm	67.0 x 55.7 mm	70.0 x 58.0 mm
Compression ratio	8.5 : 1	8.5 : 1	8.8 : 1
Maximum torque (DIN)	1.60 kg-m (15.68 Nm) / 6,000 rpm	1.46 kg-m (14.31 Nm) / 6,000 rpm	1.6 kg-m (15.7 Nm) / 6,000 rpm
<b>Lubrication system</b> ..... Wet sump			
Oil tank capacity	1.5 lit.	1.5 lit.	1.5 lit.
Starting system	Recoil hand starter	Electric	Electric
Ignition system	C.D.I.	C.D.I.	C.D.I.
Transmission	5-speed	5-speed	5-speed
<b>Chassis</b>			
Overall length	1,815 mm	1,865 mm	1,805 mm
Overall width	990 mm	1,050 mm	1,020 mm
Overall height	960 mm	980 mm	1,010 mm
Wheelbase	1,120 mm	1,150 mm	1,150 mm
Min. ground clearance	120 mm	140 mm	205 mm
Seat height	707 mm	725 mm	720 mm
Dry weight	125 kg	146 kg	144 kg
Fuel tank capacity	9.0 lit.	9.0 lit.	9.0 lit.
Suspension (front)	Telescopic fork	Telescopic fork	Telescopic fork
Suspension (rear)	Rigid	Rigid	Monocross suspension
Tire (front)	22 x 11-8	25 x 12-9	22 x 11-8
Tire (rear)	22 x 11-8	25 x 12-9	22 x 11-8
Brake (front)	Drum	Drum	Drum
Brake (rear)	Disc	Disc	Disc

\*Specifications are subject to change without notice.