

# YAMAHA 84

## RD500LC YPVS

Never before has there been such theorising, rumourmongering and eager anticipation as that which abounded in the period leading up to the launch of the RD500LC. When the factory finally unveiled the most powerful 500cc road motorcycle ever built, even the most seasoned members of the motorcycle fraternity were astounded how similar it is to our YZR500 that Kenny Roberts took to six Grand Prix victories in 1983. For years we've been acknowledged as the trend setters when it came to building high performance two-strokes for the road and the RD125, 250, 350 range has placed us in a position that the others can only envy. But with the RD500LC we've reached new heights of design and technology that are sure to make the bike a legend.

The engine, frame and cycle parts are a direct result of the many hours spent in development by our race team designers and three times World Champion Kenny Roberts. Like the Roberts' factory bike, the engine is a vee-four set at 50-degrees, which makes the unit as narrow and compact as possible.



Each of the four cylinders of the 500cc liquid-cooled engine has an anti-friction coating, which gives greater durability, while reed-valve induction allows smoothly controlled intake and the famed Yamaha system of variable exhaust port timing (YPVS) not only gives an added power bonus in the upper rev range, where it counts, but also ensures a broad spread of flexible, usable torque. The best of both worlds!

## FJ1100



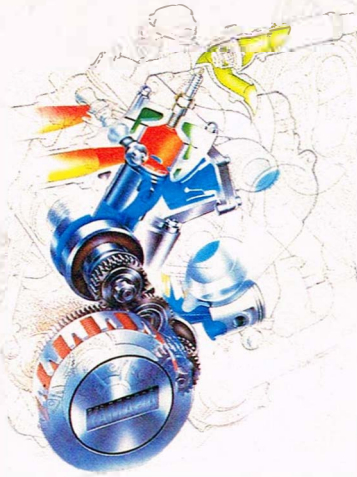
It's some time since Yamaha produced an 1100cc superbike. While others have continued producing large machines with monster weight, leg stretching seat heights and heavy handling, we stayed with the idea of matching high power with light weight. No finer examples of this can be found than the XJ650 Turbo and XJ900. For 1984 our designers were given the brief to come up with a motorcycle that was capable of top speeds in excess of 150mph, could handle better than any motorcycle in the same class, yet it would have to be just as happy swapping lanes in dense city traffic as it is eating up the miles on the open road. A tall order, but with the FJ1100 they've satisfied all the requirements, and included some ingenious strokes of their own.



Not only have we produced an engine with a power output of those twice its capacity, but an engine designed to function smoothly and reliably.

By virtue of design the vee-four is part dry sump and part wet sump. In order to maintain constant lubrication of every moving part in the engine, the Yamaha designers have evolved a unique oiling system which, on the one hand lubricates the kickstart and output shafts and, on the other, delivers constant lubrication for the remainder of the engine. This ingenious system has proved so efficient that the RD500LC requires 100cc less oil than the other GP based roadster, the RD350LC Power Valve!

As if reed-valve induction and the YPVS system were not enough to ensure smooth and rapid acceleration, we've placed a quartet of alloy-bodied carburetors in the vee-bank which are of a special power-jet variety and guarantee instant surge when you snap open the throttle. The carbs suck air from a large box positioned behind the steering head which incorporates a secondary chamber to keep intake noise to a minimum, whilst the exhaust and expansion chamber layout, of prime importance on high performance two-strokes, are routed as on the Roberts racer.



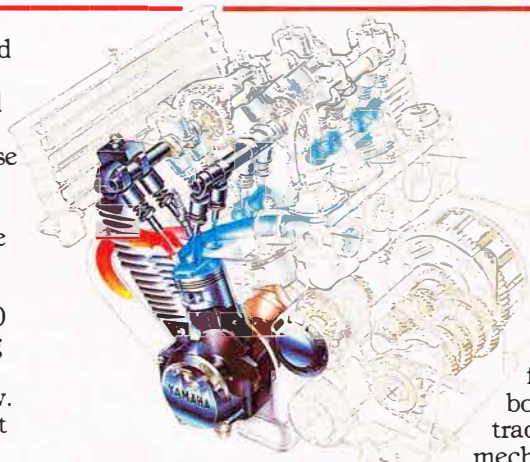
Maintaining our desire to match power with reliability, we've designed a cooling system that is thermostatically controlled, so it activates automatically as soon as engine temperature rises above the maximum level, and there's a secondary expansion tank which traps liquid which would normally be lost through the overflow.

The frame, like the engine, is unashamedly race replica through and through, based on lessons learnt from our factory racers. The main frame is box section in design, to give strength and rigidity, and the main members, running either side of the vee-four engine, are spaced in such a manner as to lower the position of the fuel tank, giving a low seat height and a real racer stance. In addition to offering a tucked in riding position, the squat frame design reduces frontal area and drag; it also allows easy access to the upper part of the engine.

Positioned horizontally under the engine is the single rear suspension unit, which is a first for Yamaha and the biggest breakthrough in suspension since the move from the trad twin rear shockers to the vertical single shock mounted at the swingarm pivot. The single De Carbon shock used in our tried and tested Monocross set up is positioned in order to give neutral handling and, at the same time, placement below the engine makes for lowest possible centre of gravity. Alloy linkage arms connect the shock to the aluminium swingarm, which is wide enough to accept full size racing rubber. As it is, the RD500LC is shod with wide pattern vee-rated tyres back and front, so there's alotta meat sticking you to the road when you open the throttle. Although the single shock is placed out of harm's way, adjusting it to suit individual rider preference is pure child's play. The De Carbon shock has two modes of adjustment, pre-load and damping. Pre-Load is adjusted by using the C-spanner supplied in the toolkit, damping adjustment is performed by merely twisting a knob connected to the shock itself. Nothing could be easier. Rear wheel travel is a substantial 120mm, and the beauty of the system is that, like the works machinery, wheel movement works in unison with the shock linkages to exert a rising rate of leverage in a direct proportion to the spring compression.

The engine is a parallel four with a sixteen valve head and puts out power in excess of 120bhp. In a clever piece of design we've moved the alternator from its normal position, at the end of the crankshaft, and relocated it behind the cylinders and above the transmission casing. By doing this the total crankcase width is reduced by over three inches, making the FJ power plant one of the slimmest in the business, and also giving a monstrous 51 degrees angle of lean from the vertical. Anyone who touches FJ crankcases down can feel free to apply for the job of a tarmac inspector!

For ease of gearchange and effortless action the FJ1100 is fitted with a hydraulically-operated clutch. Apart from giving the rider a precise feel each time the clutch is operated, a heavier spring can be used and thereby a smaller clutch assembly. This method has two very positive owner advantages. Firstly, it allows the engine and transmission unit to be as compact as possible and, secondly, less strain is placed on the gears and transmission shafts. This ensures a longer life for the gear and transmission shafts and also by using hydraulics the need for clutch adjustment is reduced to a minimum.



A smart clutch relies on a smart gearbox. The FJ1100 has one of the best. The five-speed, close ratio box, in the best racing traditions, has a shift mechanism that is a direct

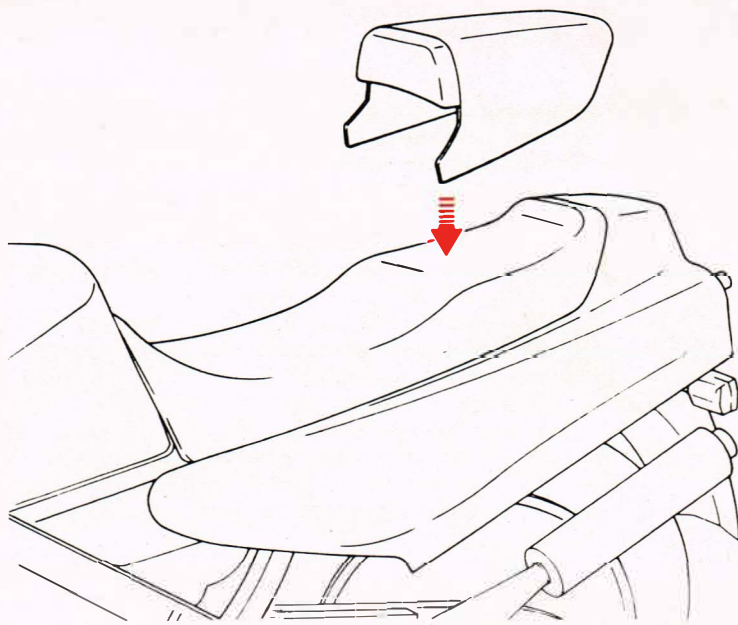
descendant of the TZ production race unit, which has been successfully campaigned by privateers the world over. Gears are precision machined to minimise transmission whine, and the entire assembly underlines our aim to make the FJ1100 the smallest, lightest and most powerful superbike around.

Another unique feature of the FJ1100 is that it's the first model we've produced with chain final drive over 650cc. The chain is the sealed O-ring variety, which means less maintenance and increased durability. Chain adjustment is via a tensioner developed again from our TZ racers, which sits beside a specially machined sprocket to keep the noise down, in keeping with our reputation for building superbly smooth motorcycles.

A malfunctioning ignition system can be annoying and is not always easily rectified on the spot. The FJ1100 system is maintenance free and computer controlled. The system is novel in that a microcomputer controls automatic advance, and electronic sensors react to engine speed, while a vacuum unit senses engine load. Thus, if you're going up a hill in the wrong ratio, or the revs fluctuate, the system reacts to both load and speed, unlike most other electronic systems which work off engine speed only.







This ensures that the fat spat at the back remains firmly on the tarmac to give positive grip at all times.

Up front is a brace of the smartest fork stanchions you're likely to see outside of a full blooded racer. These 36mm items have a cast alloy brace to assist rigidity at speed and supply 140mm of travel. An adjustable anti-dive system links with the brake line hydraulics and fork damping fluids. This works when brake line pressure is increased, thereby stiffening fork damping and preventing nose dive. By resisting nose-dive, and thus maintaining a level keel, rear wheel adhesion is further improved, as is rear wheel braking.



**RD500LC YPVS**

A high performance motorcycle demands a braking system that will operate consistently and instill the rider with the utmost confidence that his mount will pull up in the trickiest of situations. The RD500LC uses twin discs up front, with a single at the back, a system which when fitted to other models has received praise from the motorcycle press and public alike, supplying reliable stopping power long after the rest have overheated. Each disc is in two halves which form a sandwich around a material that allows air to pass between the discs for cooling and eliminating distortion through heat build up. Brake pads are constructed in a semi-metallic material that's water resistant and the calipers use opposed pistons to give consistent and assured braking at all times.

Enshrouding the vee-four engine is a race styled fairing that differs from that used on pure racing machinery only by the existence of the quartz halogen rectangular headlamp, indicators and mirrors. Our extensive wind tunnel testing has shown the fairing to have a low drag factor, which assists in reaching top speed quicker, and aids fuel efficiency. The fairing splits in four sections, so you don't have to perform a major strip down to gain access to the engine. Unlike some machines with a full, race style fairing, the RD500LC version is not short on ground clearance. The angle of lean is a sizeable 52 degrees, allowing to bank over to the limit on the wide section tyres. The fairing and instruments, which feature electric tachometer, speedometer, coolant temperature gauge plus a full range of warning lights, are frame mounted so not to affect handling at low speeds, and to preserve high speed stability.

The Yamaha RD500LC is the result of motorcycling development that has brought major successes to Yamaha in the Blue Riband of Grand Prix racing.

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As with the RD500LC, the FJ1100 frame has been developed from the information gained from our race team. Called the 'Lateral Frame Concept', the main frame is unique for a mass produced motorcycle, in that there is no main member running over the top of the engine, in the traditional manner, but two frame loops run either side of the engine and link up forward of the front fork legs. The steering head pivot is set in the main frame assembly by several smaller sets of tubing, positioned to give optimum resistance to torsional stress. This advanced design provides the greatest steering head rigidity and, as a result, firm and positive handling. Further advantage gained by using this frame design is increased rigidity at stress points, such as steering head and swingarm pivot. The use of such an open frame design also allows excellent top end access, and if you want to tackle the bottom half, the lower frame rails on either side can be removed. All four engine mounting points are spaced with rubber cushions for a smooth ride, and the rear engine bracket also acts as a pivot point for the swingarm.

The single, rear shocker is a gas De Carbon unit with five-way adjustment for both spring-preload and damping, but, unlike the RD500LC, the system is the vertical Monocross type, mounted on the swingarm pivot. Adjustment for rider preference is both ingenious and simple. Damping and preload are coupled via a remote chain and sprocket drive. By turning an adjuster knob with the special spanner included in the toolkit, both functions are altered in the correct proportions. Connecting the main frame, shock and swingarm is a series of forged links constructed to exert additional leverage as the suspension increases. This highly progressive mode of suspension ensures a level and firm ride over all varieties of surface.

Front telescopic forks are similar to those fitted to the RD500LC, with front end dive under braking taken care of by a race bred anti-dive system, linked to the hydraulic braking system via a set of valves and by-passes.

Front end rigidity is enforced by a robust cast-aluminium fork brace. As with the Monocross rear suspension, the damping and pre-load adjustment is performed by rotating a

single knob through three pre-set positions. The suspension package on the FJ1100 is one of the best ever seen on a high performance, mass produced motorcycle. It offers superb high speed stability, taut handling when you throw the bike into a bend, and, as it's matched perfectly with the high tech frame, it'll forgive you if you want to change your line at the last moment. A real innovation!

In keeping with the high performance sports pedigree of the FJ1100, the cast wheels are sixteen inches back and front. The rear boot is a whopping 150/80 with, as the front, a V rating.

The FJ braking system is twin discs up front, with a solo at the rear. The discs are the ventilated, sandwich type, using the new opposed piston design which applies equal amounts of hydraulic pressure either side of the discs. This not only gives more efficient braking, but it also reduces the chances of over heating and disc distortion.

Aerodynamics on the FJ1100 are superb. The steering head fairing, front fender, belly pan and tail unit work as one when you're eating up miles on the open road. The fairing is frame mounted to reduce steeringhead weight and to aid straight line stability. The two-piece fender and belly pan help to stick the FJ firmly on the deck at speed, and also throw air onto the engine to assist cooling.

Sitting in the fairing is the smartest set of aircraft style instruments you could hope to find. Highly visible tacho and speedo sit together with a full complement of warning lights.

Finally, the smartest detailing touch of all is our unique reserve fuel system. The full tank is 24.5 litres; when the level is reduced to five litres, a warning light flashes. The FJ will then continue on to empty, yet, there is actually a reserve two litres left to get you to the gas station. The remaining two litres can be drawn upon by removing the side panel and turning the knob to the prime position. If you still run out, don't blame us!

The FJ1100 is the Yamaha flagship and a veritable state of the art superbike. It's nice to read about, but it's a heck of a lot better to ride.

**FJ1100**



# For starters

It may not have been to everyone's taste, but you can thank the alteration in the learner motorcycle laws for the injection of new models in the formerly neglected 125cc section.

The law states that you must be at least 16 before you take to the road, and that's only on a 50cc moped with a restricted top speed. Upon reaching the ripe old age of 17 you become eligible to ride a motorcycle of not more than 125cc and with a maximum power output of 12bhp. Of course, pass your test and you can ride machines of an unlimited capacity.

For some people who pass their test, or for seasoned motorcyclists, the new and exciting models currently fighting for supremacy in this heavily competitive and very important sector of the market satisfy all their particular requirements, even with the restriction of 12bhp.

At Yamaha we were quick to realise that the alteration in the law was sure to cause a market turn around, and we were just as sure that the manufacturer that got the smartest bikes out would get a lion's share of the market.

Our designers leapt to their drawingboards and came up with two of the best looking, smart handling two-stroke 125s around, the RD125LC and the DT125LC.

Although the RD and the DT are completely different in most aspects, the DT a snappy dual-purpose trail bike, and the RD a real tarmac scratcher, they do share the same water-cooled engine. The power plant in question is a single cylinder, liquid-cooled, reed-valve two-stroke. And if that sounds impressive, you're right, it is a lot of engine!

## DT125LC

The DT125LC is an absolute replica of our championship winning YZ motocrossers. A red crawl up safety seat, plenty of suspension travel and quick steering either on the dirt or road, give the learner and hardened motorcyclist alike the feeling of the motocrosser without going to the expense of buying the real thing. Hung in front of the engine is the motocross lookalike radiator, which further enhances the feel of the dirt. But not merely a show boat, the DT performs well in town, outhandling many pure road machinery, and it can also be seen winning the trail bike section of enduros.



## RD125LC

The RD125LC has had praise heaped upon it from the nation's motoring press. It's agreed by all that the handling of the RD is well and truly in the superlative class, and in the right hands it's capable of having the legs on machines of a higher capacity.

The riding position is slightly pushed forward, the foot pegs a little rear set, in order to give the feel of the racer and underline the RD, sporting image. Seating, like the DT, is slightly crawl up, which gives added rider comfort and the handlebar fairing keeps some of the elements off as well as being aerodynamically sound. The single disc brake up front combines with the drum at the rear supplying progressive stopping power, ideal for the learner.

Both the RD and the DT are superb examples of their class, which explains their popularity. I've heard it said from more than one ageing rider, that the 125s of today are so good he wishes he was a learner again. Looking at the RD and the DT, I don't blame him.





# MOPEDS SPORTS MOPEDS LIGHTWEIGHTS & COMMUTERS

## MOPEDS

Our range of restricted 50cc mopeds has a model to cater for every requirement.

### V50MDL

Ideal for the shops, our V50MDL is a robust model, with good weather protection and reliable performance.



**CA50M Salient DL** The top of the range CA50M Salient DL is the luxurious model, with electric start, great looks and smart performance.



### SA50E Passola

The SA50E Passola is an electric start model, with luggage space and excellent economy.

## SPORTS MOPEDS

Our sports 50cc mopeds, the RD50MX and the DT50MX have been sales toppers since their launch, and continue to be the first choice for the sixteen year-old.



**RD50MX** The RD has our horizontal monoshock rear suspension, great handling and sporting looks.



**DT50MX** The DT has the looks of the motorcrosser, with high mudguards, braced handlebars, and performance to match.

## LIGHTWEIGHTS AND COMMUTERS

The Yamaha range of lightweight and short haul commuter models is based on the best virtues of all,

economy, reliability, and sure footed handling. The T80 Town Mate features four-stroke economy with shaft-drive transmission. Our CV80 Beluga offers

superb comfort and snappy performance, whilst the RXS100 handles the needs of the commuter with a longer journey in a fast, reliable fashion.



**V80DL** A very popular model, the V80DL is ideal for shopper and commuter alike. Simple to operate, with economy very much in mind.



**T80 Townmate** Sophisticated 4 stroke small-capacity commuter with shaft drive, electronic ignition and superb fuel efficiency. Way ahead of the opposition.



**LB2-80 Chappy** An 80cc fun bike ideal for the around town rider. Excellent fuel economy, the Chappy will give many miles of carefree enjoyment.



**CV80 Beluga** Ideal for the commuter or housewife, comfortable and easy to operate, the CV80 Beluga is a stylish machine for the modern rider.



**YB100** Simple to ride and maintain, very cheap to run with good performance. The YB100 offers simple sophistication for day to day commuting.



**RXS100** 100cc 2-stroke single with advanced engine features such as Yamaha energy induction system. Performance as good as many 125cc machines.



# SPORTS & TOURING

From the RD80MX right through to the exciting FJ1100, our Sports and Touring range has a model to appeal to all tastes. The two-stroke range is impressive, with the sales topping RD125 and RD350 models, and now the race replica RD500LC confirms our position as THE two-stroke manufacturer. Our range of four-strokes feature the XJ models that are narrower than any other fours currently on the market, and the FJ1100 is the most technically advanced superbike in its class.



**RD80MX** Small machine with the feel of a big bike, chassis developed from race technology used on Yamaha's works racers.



**SR125SE** Featuring an economical 125cc SOHC 4-stroke motor with comfortable riding position, the SR125SE offers semi-enclosed rear chain and electric starter.



**RD125LC** Best selling machine in its class with race developed liquid cooled powerplant and chassis with eye catching racer styling. Available in 12 and 21 b.h.p.



**XS250SE** Featuring an economical and reliable 4-stroke twin cylinder power unit with electric starting, the XS250SE has US custom styling giving a casual, comfortable riding position.



**RD250LC** Race developed liquid cooled 2 stroke power unit and chassis direct descendant of Yamaha's TZ250 road racers.



**RD350LC** A top seller, the RD350LC boasts the proven liquid-cooled 2-stroke engine derived from Yamaha's numerous road racing successes.



**RD350LC11** Fitted with Yamaha's unique power valve system that gives a wide spread of power, the MK 11 350 has the sleek styling and racing image of the 80's.



**RD500LC** Direct descendant of Kenny Roberts' YZR500 factory racer, featuring Yamaha's power valve system, new monocross suspension, aerodynamic full fairing and anti-dive front suspension.



**XS400** All the very latest features including Yamaha induction control system, monocross suspension and transistor controlled ignition, the XS400 is a sleek stylish roadster.



**XZ550** A 70° V-twin liquid cooled DOHC 8 valve power plant, monocross suspension and shaft drive makes the XZ550 a super smooth middleweight winner.



**XZ550S** With a sleek aerodynamic full fairing, the XZ550S gives effortless cruising from its powerful engine and superb handling from its sophisticated suspension system.



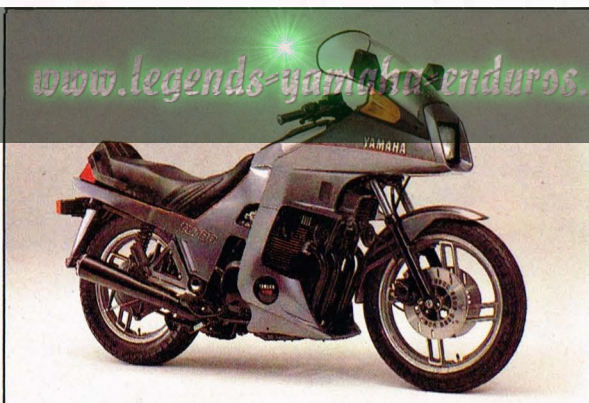
**XJ550** Lightweight four cylinder engine with exciting performance, outstanding road holding and the stopping power to match, the XJ550 is an established middleweight success.



**XJ600** The XJ600 is an all new middleweight with a four cylinder power unit and super efficient fairing and belly pan enhancing its aggressive sportster image. Available in white only.



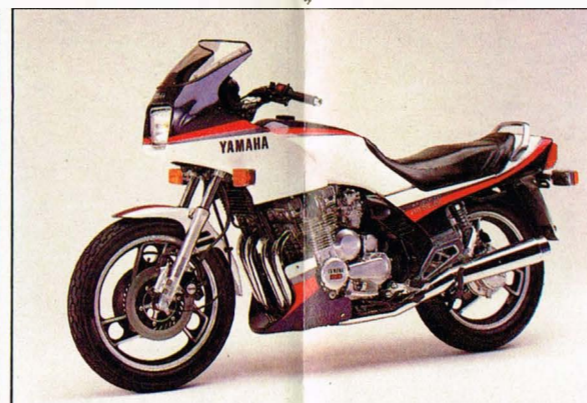
**XJ650** Featuring a narrow in-line four cylinder DOHC 4-stroke motor, the XJ650 is one of the slimmest mid-range machines available.



**XJ650 Turbo** The XJ650 Turbo provides a superbike's performance with a middleweight's appetite for fuel. With superb handling the XJ650 Turbo offers all the advantages in a single package.



**XJ750** This compact sports tourer features a host of technological wizardry including a useful computer monitor system, adjustable anti-dive forks and maintenance free shaft drive.



**XJ900S** One of a new breed of high performance motorcycles, the XJ900S delivers outstanding value. Its sleek aerodynamic lines are matched with speed and comfort. Available in black only.



**TR1** A low revving, high speed tourer, the TR1 gives that extra comfort and economy that is demanded by the serious distance rider with style.



**FJ1100** Lightweight handling with heavyweight performance is the result of Yamaha's new frame technology and engine development, the FJ1100 will deliver!

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# ON/OFF ROAD

Our range of two and four-stroke dual purpose trail bikes has long been the choice of many around the world. The DT125LC motocross replica has all the looks and technology of the competition YZ models. The top selling XT550 four-stroke single has now been superseded by the Paris/Dakar XT600Z Ténéré and the sporting XT600. Whether you want a two or four-stroke machine, we have the model to suit your needs.



**DT125LC** Derived from the world championship winning YZ motocrossers, the DT125LC bristles with the latest race technology, giving unrivalled on and off road performance.



**DT80MXII** The sporting good looks and monocross suspension of the DT80MXII makes an ideal machine for the young enthusiast with on and off road ambitions.



**XT125** The 4-stroke SOHC powerplant of the XT125 offers excitement to on and off riders alike. With Yamaha's proven monocross suspension, the XT125 is ideal for the first time rider.



**DT175MX** Just for fun or for serious work, the DT175MX will satisfy every need in the lightweight stakes. Monocross suspension and a single cylinder 2-stroke engine completes the package.



**XT600** For street or trail the XT600 is a true dual purpose machine capable of winning an enduro or simply providing exciting transport for you and your passenger.



**XT600Z Ténéré** Derived directly from Yamaha's Paris-Dakar winning machine, the XT600Z is a single cylinder 4-stroke with a four valve head, front disc brake and a 30 litre fuel tank, ideal for touring.



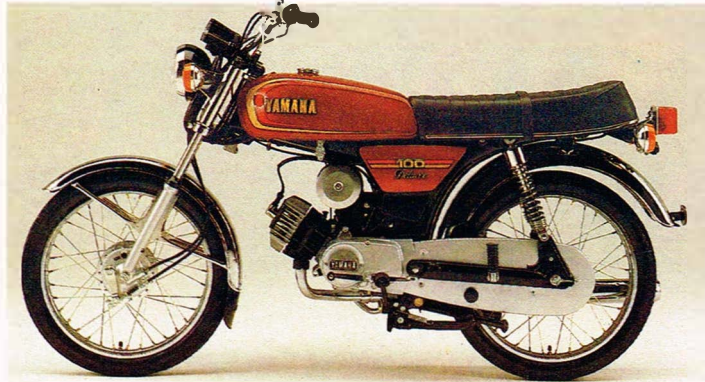
# COMMUTING

The small capacity commuter models have, in some people's eyes, tended to be overshadowed in the past by the flashier and more highly strung sports models of a similar capacity. We at Yamaha haven't overlooked the very real need to supply a range of practical models that give low fuel consumption, ease of maintenance and comfortable, reliable get you to work riding. In the RXS100, the YB100 and the T80 Town Mate, we have three models that vary in specification and design, yet the benefits to the customer are the same throughout. More miles between fill ups, comfort and superb reliability.

Our T80 Town Mate is a solid performer with the benefits of four-stroke economy together with a chassis that's proved its worth with our other two-stroke lightweights. The 79cc, single overhead camshaft engine puts out a healthy six and a half bhp, and is mated to a four speed, shaft drive transmission.

The electronic ignition is totally maintenance free and needs no adjustment, whilst the gearbox has a fully automatic clutch. All you have to do is select the right gear. The T80 has a dual seat and takes two-up riding in its stride.

Leg shields keep the trousers dry, while a chrome carrying rack at the front is ideally suited for the commuter's briefcase. The greatest feature of all is that when ridden at 30mph, the T80 records a fuel consumption figure in excess of 150mpg!. At that rate, it pays for itself quicker than anything else of a similar capacity on the market.



The RXS100 combines a traditional frame layout, a snappy 99cc two-stroke engine and superb handling. For the commuter looking for a mount that will give a top speed of over 65mph, travel nearly 70 miles on a gallon of gas, and at the same time offer manoeuvrability on a par with models in the sports class, the RXS is hard to overlook. An added advantage of a 100cc machine is that it falls into the cheaper insurance category while delivering 12 bhp like the higher premium 125cc models. The RXS100 is the perfect blend of sports performance, easy on the pocket economy and proven mechanical reliability.



Our YB100 fills the gap between the advanced T80 Town Mate scooter and the sporty commuter RXS100. The YB100 is based on the time honoured virtue of functional simplicity. The simple part is the ease of maintenance and access to the rotary valve induction two-stroke engine. Chassis design is traditional and robust, with adjustable twin rear shock absorbers. Designed with the short hop commuter specifically in mind, the YB100 has a chain guard to keep the lubricant off the trousers, deep mudguards and easy to use controls. Everything you want to keep the pennies in the pocket, and beat the morning traffic jams.

## SOFT BIKES

The 50cc scooter class has grown into one of the most hotly contested segments of the two wheel market. At Yamaha we've given this section careful consideration, and with the CA50M Salient DL and the SA50E Passola we've produced two models with separate pedigrees, yet both have the looks, performance and economy that make them winners.

The CA50M Salient DL is our top of the range ritzy scooter that will get from A to B in town traffic as quick, if not quicker than a machine of ten times the capacity. Powered by 50cc, two-stroke single cylinder engine, the Salient goes straight to its top speed of around 30mph as soon as you twist open the throttle and will happily stay at that speed all day long. Riding the Salient could never be easier. By opening the throttle you engage the automatic vee-belt variable ratio transmission which does the gear selecting for you. The system works off the engine speed; as you close the throttle the engine slows, the transmission selects a lower ratio, and as you open the throttle again you're in the ratio for instant take off, using the broad power band of the engine to its fullest. Starting the Salient is as easy as riding it. We've fitted a push button electric starter which, with the aid of the automatic choke, ensures instant starting.

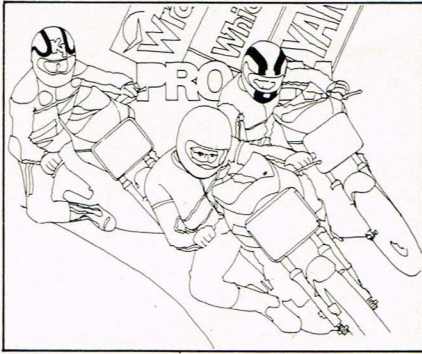
Braking is via single drums back and front, which are easily operated by two levers on the handlebar. There's weather protection in abundance from the large leg shields and screen, with the addition of a carrying compartment behind the leg shields, whilst a carrier at the back will easily accommodate a briefcase. With its small wheels the CA50M Salient DL is a smart handling, safe and enjoyable machine to ride. If you're in town, in a hurry, it's for you.



The SA50M Passola is the work horse of our 50cc scooter models. This model will get you down to the shops quickly, and when the basket on the front is fully loaded, the rest of your goods are strapped to the back, it'll take you home just as happily. Like the Salient, the engine's a single cylinder two-stroke, with an automatic clutch and two speed automatic transmission. An electric starter is fitted for immediate starting, and both back and front brakes are operated at the handlebar. Easy to ride, easy on the pocket, it hangs on to gas like a camel retains water, and it looks quite tasty as well. It has to be the cheapest haulage vehicle ever.



**Wrangler, Which Bike? Yamaha Pro-Am Competition.**



All you have to do is look closely at the pictures above and spot the ten differences. List them in the space provided on the entry form below and complete in no more than 12 words, I like the Wrangler, Which Bike?, Yamaha Pro-Am series because.....

First prize £150.00 worth of Wrangler gear.  
Second Prize £75.00 worth of Wrangler gear.

For each of the ten runners up a pair of Wrangler Jeans plus tickets for the Pro-Am final.

**Rules**

1. All entries must be received by August 31st 1984.
2. No employee of Mitsui Machinery Sales (UK) Ltd, its dealers or any persons associated with the organisers of the competition are eligible.
3. Winners will be notified by post. List of winners can be obtained by sending a s.a.e. to the competition address.
4. All decisions of the judges are final and no correspondence will be entered into.

Mitsui Machinery Sales (U.K.) Ltd.,  
Oakcroft Road, Chessington, Surrey  
KT9 1SA.

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"I like the Wrangler, Which Bike?, Yamaha Pro-Am because....."

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# Wrangler Which Bike? YAMAHA PRO-AM

Starting life as the Yamaha Pro-Am, and now known as the Wrangler / Which Bike? Pro-Am, this series has been an unqualified success with the television viewers, track side supporters, not to mention the riders.

The series has become a proving ground for many youngsters wishing to move on to bigger and better things in the road race scene, and can boast such notables as Rob Mc Elnea and Alan Carter as former riders.

Anyone who's ever attended or witnessed, via the television, a round of the Wrangler / Which Bike? Pro-Am will confirm that the racing is often the closest seen all day, it's the most action packed eight laps you could ever wish for, and the machines used are exactly the same as seen in your local Yamaha dealer's front window, save for the deletion of lights and indicators for racing.



**GRAHAM CANNEL**

**KEN IRONS**

**STEVE CHAMBERS**

**PAUL TINKER**

**RAY SWANN**



The RD350LC Power Valve is, like the all new RD500LC, a machine that has direct links with our TZ road racers. The engine is a liquid-cooled, two-stroke twin with reed-valve induction and our famed system of variable exhaust porting, (YPVS). The engine puts out just under 60bhp, which is capable of taking the RD350LC to speeds in excess of 120mph. Such a speed for a road-going 350 was unheard of a few years ago. Framework is robust tubular steel which follows closely the dimensions of the highly successful TZ350 production road racer. The suspension package on the 350LC is far superior to anything yet seen for a bike of this capacity. At the back our single shock Monocross system soaks up the bumps, and with its true rising rate system, you get the power down that much quicker. At the front is a brace of telescopic forks with air assistance, a perfectly balanced set-up for the demanding sports rider.

Stopping power for a high performance sports bike of this type has to be spot on. Ask any Pro-Am rider as to the extent of use the brake lever gets during a race. The system fitted to the 350LC is the perfect balance of twin discs up front and single at the rear. These hydraulically operated brakes have stood up to the treatment on the track, so you can be confident on the road. The styling is pure racer, with a belly pan and handlebar bubble, plus the usual high standard of Yamaha electrics and switchgear.

No wonder the Yamaha Wrangler / Which Bike? Pro-Am is so good, they've got the best possible machine for it.



# XT600

Since we introduced the very successful XT500 single cylinder thumper, we've been at the fore of refining and advancing the idea of the large capacity, single cylinder four-stroke dual purpose machine. For 1984 our range of dual-purpose enduro four-strokes is headed by the XT600. This ruggedly styled model has a little of the YZ motor-crosser in it, a touch of the road bike and some features all of its own.



The 595cc engine pushes out a hefty 44bhp at a modest 6,500rpm, and has a four-valve, single overhead camshaft cylinder head and features the unique Yamaha Intake System (YDIS). This ingenious system utilises two different types of carburettor, linked together to feed the single cylinder through an increasing choke size. The primary carburettor has a direct cable operated throttle, for instant snap from low speed. The second half of the twin carb set-up is of the constant velocity type, which has a vacuum controlled meter administering fuel to the engine as the speed increases, thereby giving clean and even running when you're cruising on the open road. We've eliminated the inherent problem of starting big capacity singles, by fitting a decompressor, which combines with the YDIS system and the electronic ignition to give easy starting from hot or cold.

Accommodating the engine is a fully triangulated diamond type frame that uses the motor as a stressed member. The sturdy box-section swingarm has at its pivot point a De Carbon single gas shock that's adjustable and full rising rate. At the front, a beefy pair of telescopic forks will soak up the heaviest of bumps. Up front braking is done by a large, ventilated single disc that's designed to be equally at home on the road or on the dirt.

The XT600 is a nimble and powerful road bike, a highly competent off-road machine and one tasty motorcycle.

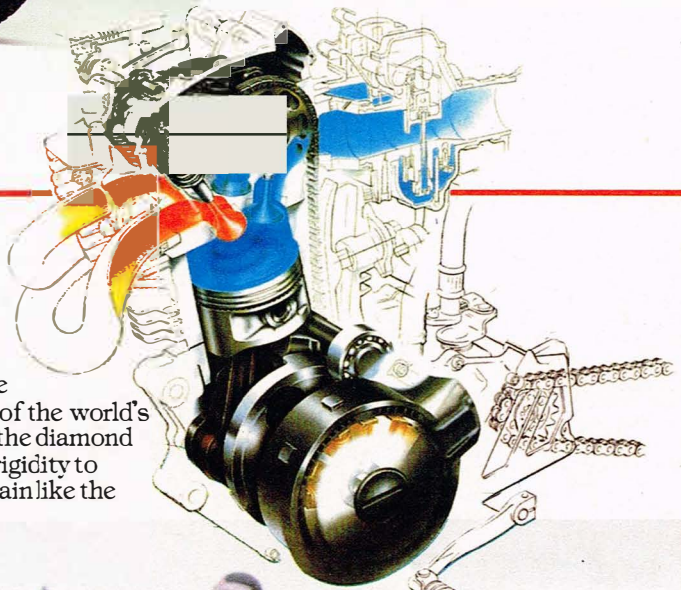
# XT600Z TÉNÉRÉ

If you've ever wondered what it would be like to ride one of those weird and wonderful machines that a brave bunch of men race between Paris and Dakar each year, well now's your chance. The XT600Z Ténéré is a complete replica of the works bikes that did battle in the 1984 edition of the world's longest sand race. The massive 30 litre fuel tank sits on top of the diamond type frame, similar to the XT600, which has the strength and rigidity to take on the roughest terrain you can throw at it. The engine, again like the slimmer lined XT600, is a single cylinder four-stroke with a four-valve head and a power output of 43bhp. In line with our other large capacity XT models, the YDIS twin stage carburettors are used to give plenty of low down grunt, and at the same time supplying smooth, efficient cruising.

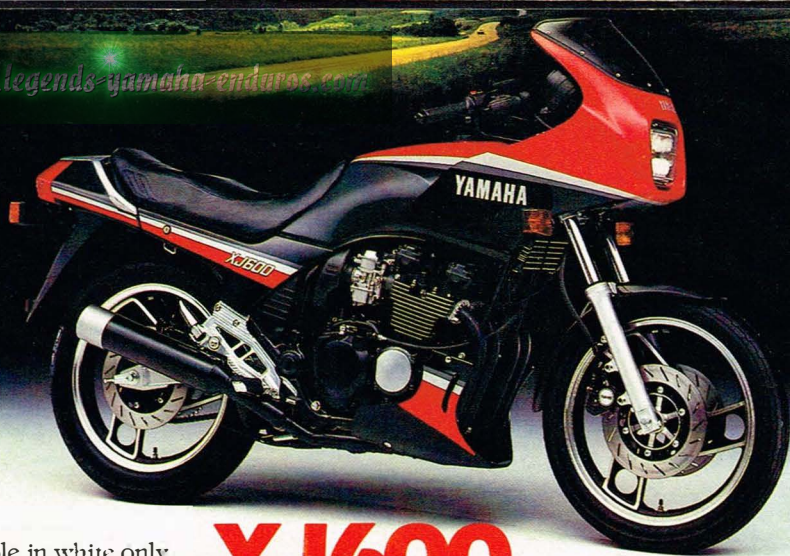
At the rear, our single shock, monocross suspension system is used, with the shock linked to robust box section swingarm. Up front a brace of telescopic forks, with air-assistance, supply a massive 255mm of wheel travel, whilst the rear is only marginally less, giving 235mm of rear wheel movement; the chances of bottoming the suspension would appear to be very slender indeed.

Braking is taken care of by a single drilled hydraulic disc at the front, with a large diameter drum at the rear.

With a red frame, gold wheels, a two-tone seat and that massive tank, the XT600Z Ténéré looks stunning. It's even better to ride.







Available in white only.

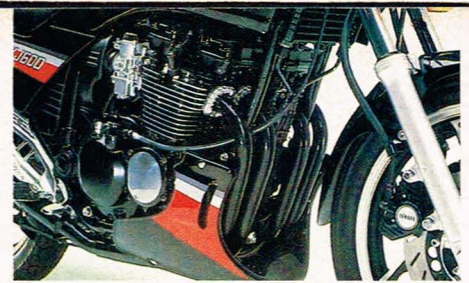
## XJ600

The middleweight section of the market is fast assuming the proportions of the largest selling sector of all. We've been building middleweights for quite some years with many accolades. With the XJ600 we are determined to achieve greater success than ever. The XJ600 for '84 is a completely new machine and not merely an over-bored XJ550. For the first time in the XJ series our rising rate, Monocross suspension is used, along with a new frame and bodywork.

In keeping with stated desire of building four cylinder four-stroke engines, lighter, narrower and more compact than our rivals, the XJ600 engine has the generator mounted behind the cylinders and above the transmission cases. This allows us to substantially reduce engine width, thereby offering you increased ground clearance and a greater angle of lean. The double overhead camshaft engine retains the same casting as its smaller XJ550 brother, but inside we've redesigned the combustion chamber and both inlet and exhaust ports, purely to achieve extra power.

Carburettor size has been increased from the 28mm found on the XJ550, to a sizeable 32mm. Exhaust pipes have also been increased in diameter, plus a straight flow muffler is added for more efficient dispersal of the spent gases. The ignition system is pre-set and has a built in automatic advance system that strikes the perfect balance between engine speed and ignition timing. And, best of all, the system is totally maintenance-free.

The smart engine is housed in an all new double cradle chassis that uses rubber cushions at all mounting points to give the smoothest of rides, plus the race proven monocross rising rate suspension system absorbs all the rear end bumps. The single De Carbon gas, single shock has five position adjustment and is fitted low down behind the engine to give a lower centre of gravity and central weight mass, which results in the most neutral handling position possible. The swingarm is constructed in high-tension box section tubing, and it connects to the shock unit via a series of links which work in unison to exert



pressure on the wheel as the spring compresses. The power is kept well and truly on the tarmac where you want it.

At the front, the telescopic forks have large diameter stanchions, plus a heavy duty fork brace to assist front end rigidity, which is good news if you're banked over and encounter some uneven surface.

As with the brakes on our other, larger models, the XJ600 has two discs upfront and a single behind. The discs are the ventilated type, to avoid distortion and consequent brake fade. Opposed piston calipers are used to improve braking efficiency even further.

Like the other new models in our 1984 range, the XJ600 has some tasty bodywork that personifies the aggressive sportster image. The frame mounted handlebar fairing and the belly pan not only look good but they're also aerodynamically highly efficient.

The 1984 XJ600 boasts so many new and exciting design and mechanical innovations that it must sit on top of the tree as the undisputed king of its class.

## XJ900

Why tamper with a success story? Launched last year, the XJ900 became an instant success with press and public alike. So, rather than carry out wholesale surgery, we've decided to give the XJ a new set of clothes, which not only look smart but improve straight line stability and performance.

The fairing is, like the faired models elsewhere in our range, frame mounted to reduce as much as possible any hint of drag on the steering head, which would interfere with what is a delightfully neutral handling machine. The extra width of the fairing provides far greater protection for the rider, and as the XJ900 has shown itself to be more than capable of filling the role of the high mileage tourer, this will be a welcome addition for many.

Another neat piece of bodywork, new to the XJ900 for 1984 is the engine cowl sitting under the engine. Like the new frame-mounted fairing, the engine cowl has been wind tunnel tested and shown to have a positive on performance and straight line stability.



And there the changes end. The XJ900 retains the same successful engine specification as the 1983 model, offering the same excellent blend of power, comfort, handling, and for 1984, even better looks.

Available in black only.



# YAMAHA

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This brochure serves as a guide only, for full details please consult your Yamaha dealer.

Specifications and appearance of Yamaha motorcycles shown here may vary according to requirements and conditions and are subject to change without notice.