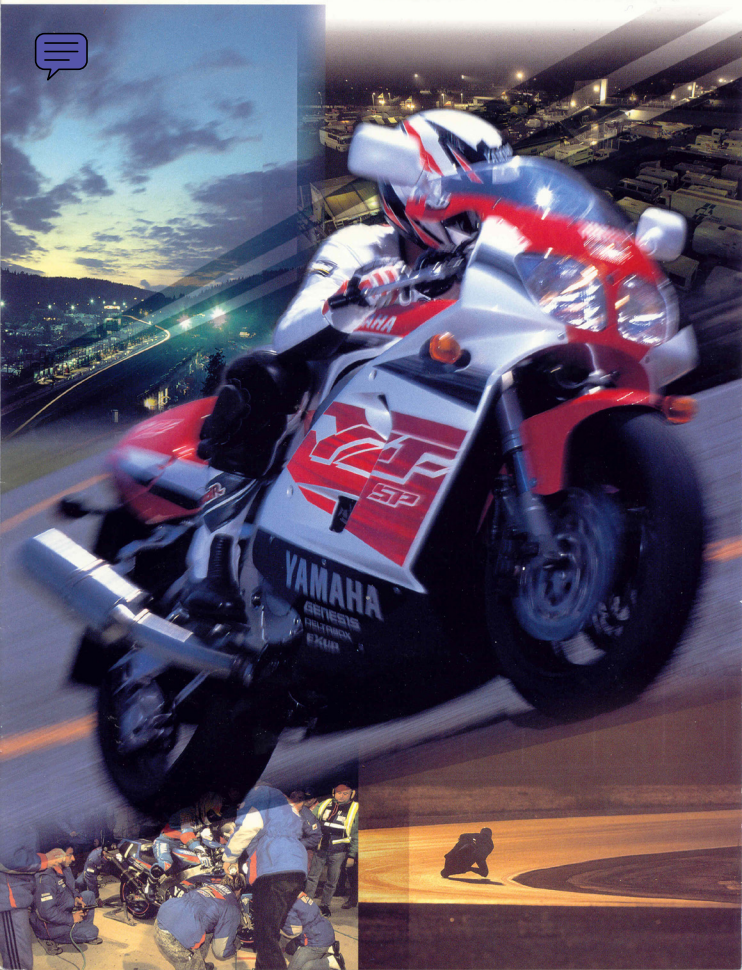
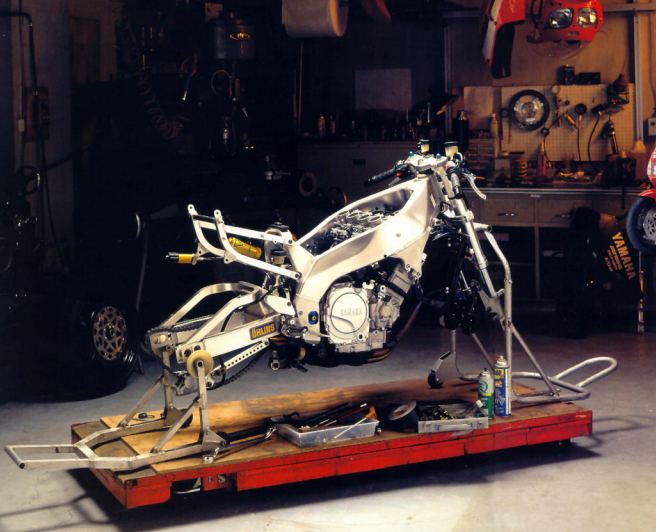


YAMAHA YZF750R/750SP





Every creature alive today is here as a result of natural selection. It is a process that dictates the shape, character and appearance of all animals on the face of the planet—from the smallest insect to the largest mammal.

And it is this ongoing cycle of evolution that enables each species to become masters of their own particular environment.

At Yamaha we use exactly the same principle to develop our sophisticated supersport models. But our idea of natural selection is to go racing at the highest level. And the evolutionary time scale is measured in months, not millennia!

Yamaha have always placed enormous emphasis on the importance of competition. So you probably won't be surprised to learn that we've been winning races for over 40 years. And today our global sporting activities include the World Superbike Championship as well as Grand Prix road racing in every category.

Naturally we always race to win. But we also use our racing machines as an integral part of our research and development programme—because we believe that no amount of computer power can come close to matching the human feedback we gather from our factory riders and technicians. And so

you can be sure that all of the advanced engine and chassis technology found on our YZF models has been tested to the limit on the race track before reaching the production line.

It is a highly successful philosophy that has made Yamaha one of the world's leading manufacturers. And it is how we are able to create such remarkable supersports machinery like the YZF750R and YZF750SP.

Every single aspect of these winning machines is a direct spin-off from the race track. Originally created for the Grand Prix machinery, the aluminium Deltabox frame is universally regarded as being the most advanced design of our

time. Equipped with fully adjustable suspension front and rear, this race bred chassis represents the most sophisticated package ever offered to the privateer racer or supersport road rider.

And with its Genesis technology slant block layout, 5-valve cylinder head configuration and torque boosting EXUP, the YZF's engine is the most advanced in-line four-cylinder 4-stroke we have ever made.

YZF750R/SP. A new species of supersport.

Designed without compromise. Built to win.

Never before has Yamaha created a production bike so sharply focused as the YZF750. In fact when we set out to develop this Superbike racer based machine, the design brief we gave our engineering team was absolutely clear cut.

We asked them to construct a class leading motorcycle using only the most advanced engine and chassis technology available.

It was the kind of project every motorcycle engineer dreams about. And the end result is the YZF750SP racer and YZF750R road model—surely two of the most outstanding 750 cc supersport machines of the nineties.

Deltabox frame ensures immense rigidity under the most extreme race conditions—while fully adjustable front and rear suspension on both the R and SP permits accurate chassis tuning to achieve optimum performance.

Featuring a 5-valve head layout, throttle and gear position sensors (TPS and GPS), and our unique EXUP system (Exhaust Ultimate Power Valve), the 749 cc in-line four cylinder engine pushes out massive waves of high intensity horsepower. And with its leading slant block layout, the centre of gravity is kept low for precision handling characteristics.

Yamaha YZF750SP and YZF750R. Two advanced models. One clear goal. And absolutely no compromises.



1) R model's high efficiency 38 mm downdraft carburetors and large capacity airbox make for hard hitting performance right through to the red line.



2) Lightweight aerodynamic racing type seat on the YZF750R incorporates a separate passenger seat beneath its quickly detachable cover.

3) For added security the road going R version features a useful U-lock storage compartment under the flip-up seat.

4) To help deter potential criminals both the YZF750R and SP are fitted with a specially hardened anti-theft ignition switch.



Over the Counter Factory Power

Carburetors

Every feature on the YZF750SP has been designed to extract maximum performance from the class leading 749 cc slant block engine, and for '96 the latest model is fitted with FCR39 type downdraft carburetors. Specially developed for racing use, they are equipped with competition specification flat slides which are designed to ensure instant throttle response at all engine speeds.

Feeding each cylinder head via short, straight inlet track and three inlet valves, the FCR carburetor's downdraft configuration makes for outstanding acceleration together with race winning power output.



Engine/Cylinder head

YZF750SP's slant block engine is the most technologically advanced in-line four cylinder engine ever developed by Yamaha, and has been specifically built to compete at the highest level in Superbike racing.

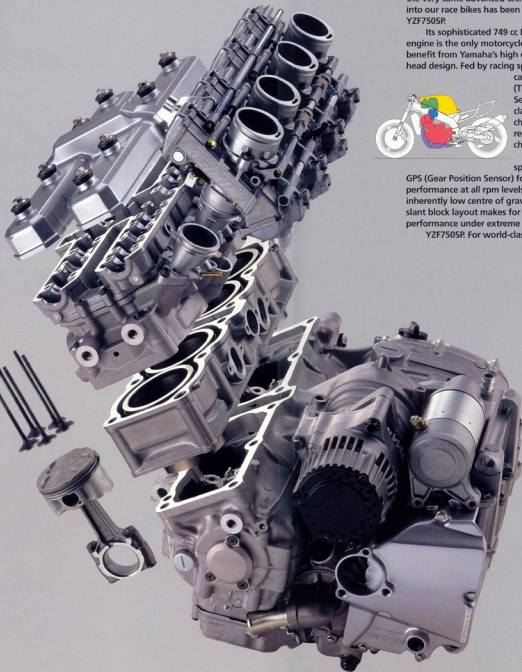
Developed using our famous Genesys approach to engine design in which the engine and chassis are created in unison rather than as separate entities, this high performance powerplant is the



most innovative engine in its class.

One of the most ingenious features to be seen on the SP is its very special 5-valve cylinder head layout. Originally developed for our factory race machinery, this advanced system incorporates three inlet and two exhaust valves in each low volume combustion chamber. Exclusive to Yamaha, this 5-valve system ensures highly efficient intake and exhaust gas flows for superior performance.

In addition to its unique cylinder head design the YZF750SP also features a very narrow valve angle which further enhances overall output—which combined with the 72 mm bore and short 46 mm stroke makes for a free revving engine with instant pickup and massive high rpm power.



In World Superbike racing Yamaha's factory YZF is one of the quickest multis on the track. And the very same advanced technology that goes into our race bikes has been applied to the latest YZF750SP.

Its sophisticated 749 cc DOHC liquid-cooled engine is the only motorcycle in the class to benefit from Yamaha's high efficiency 5-valve head design. Fed by racing specification FCR39 carburetors with TPS (Throttle Position Sensor), this world class powerplant charges hard to the red line—and to the chequered flag! Close ratio 6-speed gearbox runs



GPS (Gear Position Sensor) for optimum performance at all rpm levels. And with its inherently low centre of gravity the engine's slant block layout makes for superior chassis performance under extreme race conditions. YZF750SP. For world-class performance.

Radiator

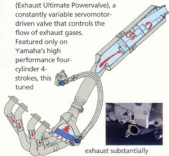
SP's specially developed curved radiator combines a large surface area with low overall weight.

Equipped with dual thermostatically controlled fans, this highly efficient competition specification cooling system helps maintain a consistent engine temperature during prolonged high rpm racing conditions.

Muffler

A direct spin-off from our factory racers, the SP's exhaust is equipped with EXUP (Exhaust Ultimate Power Valve), a constantly variable servomotor-driven valve that controls the flow of exhaust gases.

Featured only on Yamaha's high performance four-cylinder 4-stroke, this tuned



exhaust substantially boosts mid-range

performance, giving the YZF750SP a real advantage both off the start line and when accelerating hard away from slower corners.

Transmission

To match the characteristics of its high performance racing specification engine the SP model is equipped with a 6-speed close ratio transmission. Driving through a wet clutch and 16/39 engine/rear wheel sprocket combination, this smooth action gearbox allows the

rider to make full use of the machine's powerband in a wide variety of track



conditions—and to optimise ignition efficiency the YZF also features a Gear Position Sensor (GPS).

The Science of Control



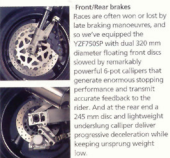
Front forks
YZF750SP's advanced upside down front forks have been constructed using large diameter 41 mm tubes which are designed to resist flex when subjected to the intense forces generated by braking and suspension action. Together with the narrow pitch layout of the outer tubes this high rigidity front end delivers extremely precise handling at race speeds.

And to facilitate accurate suspension set up for sharper chassis performance these 120 mm travel front forks are fully adjustable for preload as well as rebound and compression damping.

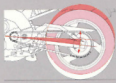
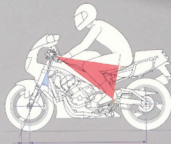
Rear suspension/Swinging arm
Based closely on the class leading system featured on our factory Superbike race machinery, the SP's Monocross rear suspension is one of the most technologically superior designs in the superbike category.

Manufactured from stiff box section aluminium, the truss type swinging arm's remarkably low weight makes for responsive suspension action—while its inherent strength helps maintain accurate wheel alignment for razor sharp handling performance when pushed to the limit and beyond!

Heart of the Monocross system is a high quality Ohlins shock absorber giving 130 mm of firm and consistent travel. Offering full adjustment for preload, compression and rebound damping, this competition specification rear suspension system can be fine tuned to suit a wide variety of conditions. And with its ride height adjustment facility, the SP's rear end can be raised or lowered to reduce squat.



Front/Rear brakes
Races are often won or lost by late braking manoeuvres, and so we've equipped the YZF750SP with dual 320 mm diameter floating front discs slowed by remarkably powerful 6-pot callipers that generate enormous stopping performance and transmit accurate feedback to the rider. And at the rear end a 245 mm disc and lightweight underbraking calliper deliver progressive deceleration while keeping unsprung weight low.



Adjustable swinging arm
Tuneability is one of the most important features on any competition chassis, and it is here that the SP excels! Fitted with narrow pitch upside down front forks and a racing quality Ohlins rear shock—both of which offer full adjustment for preload, rebound and compression damping—the YZF750SP's suspension can be dialed in to suit virtually any track or riding style.

Like a true Superbike the YZF750SP is equipped with an adjustable swinging arm pivot which allows a wide range of choice in chassis set up options.

Simply by removing the swinging arm pivot and rotating four mounting bases through 180 degrees the machine's ride height can be raised or lowered. Set at the high position, the YZF's revised geometry helps reduce squat and delivers increased traction during acceleration—while at the same time sharpening up steering characteristics for superior race track performance and reduced lap times.

Utilising virtually the same dimensions and geometry as our factory Superbike racers, the SP's short wheelbase alloy Deltabox frame incorporates the slant block engine as a fully stressed member to create an immensely stiff structure.

With its massive twin aluminium spars flowing from the heavy duty steering head down to the high rigidity cast alloy swinging arm pivot assembly, this race proven design resists flex even during the most aggressive braking and cornering. And that's one of the reasons that the YZF is just about the sharpest handling 750 you will ever experience!

YZF750SP's Monocross rear end employs a highly sophisticated Ohlins shock absorber constructed specifically to handle the extreme demands of Superbike competition. Offering a wide range of preload, rebound and compression damping settings, this technologically advanced system allows riders to set the machine up exactly how they want it.

And in addition to these shock tuning facilities the SP's adjustable swinging arm pivot also allows the ride height to be raised or lowered to help reduce squat during full-on acceleration.

To complement the advanced rear suspension we've also fitted the YZFSP with Superbike-replica upside down front forks designed to offer smooth, responsive action



Fairing
To attain one of the lowest drag factors in the 750 cc category the YZF750SP is dressed in a specially developed low frontal area fairing fitted with powerful twin fog eye headlights similar to those fitted to Yamaha's factory



endurance race bikes. Light, compact and aerodynamically efficient, this Superbike based design delivers excellent high speed stability and helps the SP achieve race winning top speed figures.

Detachable rear sub-frame
In addition to ensuring massive chassis rigidity the Deltabox frame's twin spar design gives clear access to the downdraft carburettors—and to simplify routine maintenance the SP's lightweight aluminium sub-frame is fully detachable. As well as reducing the time required to remove the Ohlins shock absorber for servicing, this detachable section makes for quick and easy repairs to any accidental rear-end damage.



Wheels
YZF's lightweight cast alloy wheels run a 120/70 ZR17 front tyre and massive 180/55 ZR17 rear for outstanding traction and superior cornering performance. Featuring an attractive 3 spoke configuration, they keep unsprung weight to a minimum for super-



responsive front and rear suspension action as well as remarkably agile handling characteristics.

together with high levels of resistance to the flexing and twisting forces generated under competition conditions.

This has been achieved by the use of rigid 41 mm tubes and huge aluminium triple clamps which keep their shape under intense stress—while the narrow pitch of the fork legs counteracts torsional forces transmitted through the 17-inch front wheel.

Fully adjustable for rebound and compression damping as well as preload, these racing specification front forks can be set up in conjunction with the Monocross rear end to achieve the maximum potential from this class leading motorcycle.

With its lightweight alloy Deltabox frame, high rigidity truss type swinging arm and fully tuneable front and rear suspension systems, the YZF750SP is ready to race.

And equipped to win.

YZF750R BWC1 (Bluish White Cocktail 1)



YZF750SP BWC1 (Bluish White Cocktail 1)



YZF750R/SP TECHNICAL SPECIFICATIONS

ENGINE

Type	.....Liquid-cooled, 4-stroke DOHC
	Forward inclined parallel 4-cylinder
Displacement	.....749 cc
Bore and stroke	.....72 x 46 mm
Compression ratio	.....11.5 : 1
Max. power	.....
(DIN)	.....125 PS (92 kW) @ 12,000 rpm
(ISO)	.....119 PS (87 kW) @ 11,000 rpm
Max. torque	.....8.1 kg-m (79.4 Nm)
	@ 9,500 rpm
Lubrication	.....Wet sump
Carburation	.....(R) Mikuni BDS38/4
	(SP) Keihin FCRD 39/4
Ignition	.....T.C.I. (Digital)
Starter system	.....Electric
Fuel tank capacity	.....19 litres
Oil tank capacity	.....4 litres
Transmission	.....6-speed
Final transmission	.....Chain

CHASSIS

Overall length	.....2,160 mm
Overall width	.....730 mm
Overall height	.....(R) 1,165 mm
	(SP) 1,145 mm
Seat height	.....785 mm
Wheelbase	.....1,420 mm
Min. ground clearance	.....140 mm
Dry weight	.....(R) 196 kg
	(SP) 193 kg
Front suspension	.....Telescopic fork
Rear suspension	.....Swinging arm
	(Link Suspension)
Front brake	.....Dual disc, 320 mm Ø
Rear brake	.....Single disc, 245 mm Ø
Front tyre	.....120/70 ZR17
Rear tyre	.....180/55 ZR17

Always wear a helmet, eye protection and protective clothing. Yamaha encourage you to ride safely and respect fellow riders and the environment. Specifications and appearance of Yamaha products shown here may vary according to requirements and conditions, and are subject to change without notice. For further details, please consult your Yamaha dealer.

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