

Yamaha
XJ750

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THE YAMAHA XJ750—A GLIMPSE INTO MOTORCYCLING'S FUTURE

Since their introduction three years ago, the Yamaha XJ models have been hailed as the most technically advanced range of four-cylinder engines on the streetbike scene. With the latest in this range, Yamaha have pushed road-going motorcycle technology to the outer limits. All of their design and engineering expertise is combined in one superlative machine — the Yamaha XJ750.

Built into this full-blooded sports model are a host of high-tech features like air-assisted front forks with anti-dive braking link, an on-board computer to constantly monitor various machine functions, racebred slotted disc brakes, the Yamaha Induction Control System (YICS) and the narrowest four-cylinder engine on the market.

Slimming down the engine was achieved by taking the generator from its usual place on the crankshaft end and re-positioning it in the normally vacant spot behind the cylinders. It then picks up its drive via a gear train from the crankshaft.

By using an ultra-short piston stroke, the height of the engine was also greatly reduced to produce a compact unit that permits a much deeper angle of cornering lean and a low centre of gravity.

A reduction in engine height is not the only advantage gained by the short piston stroke. Combined with high performance camshafts, high compression pistons and four synchronized 32mm carburetors, the engine produces the kind of high-revving performance once reserved strictly for the racetrack.

The XJ750 is as impressive on the twists and turns of the open road as it is on the dragstrip, thanks to nine adjustment points on the rear shock absorbers and infinitely variable adjustment potential on the air-assisted front forks. Any rider can dial in the suspension setting that suits him best.

Front suspension is, in fact, the most

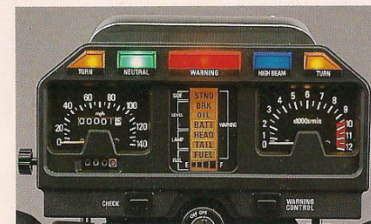
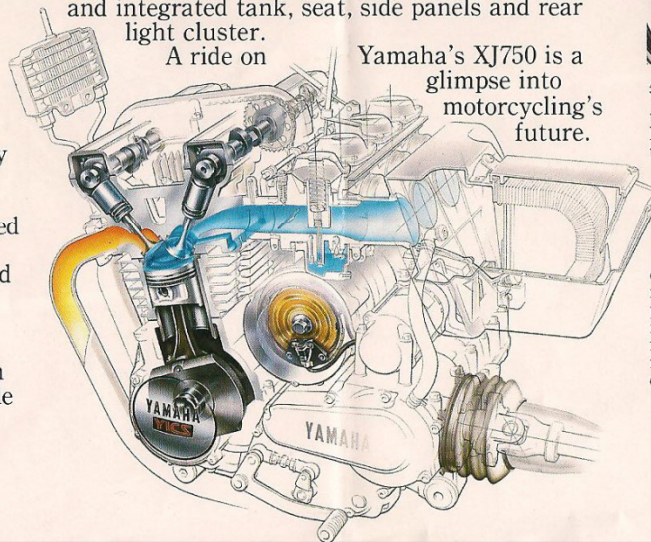
advanced of any street motorcycle, with anti-dive control straight from Yamaha's Grand Prix road racers. The anti-dive mechanism uses hydraulic pressure from the braking system to restrict the flow of fork damping oil. Thus fork compression is reduced without altering the actual smooth damping characteristics. That disconcerting nose-dive under heavy braking is eliminated so that both machine control and braking efficiency (front and rear) is improved by the machine maintaining a level posture.

The XJ750 technology covers the world of electronics as well as the mechanical. An on-board computer constantly monitors seven different machine functions, and if anything goes wrong, it will immediately inform the rider via the appropriate read-out on the liquid crystal display panel.

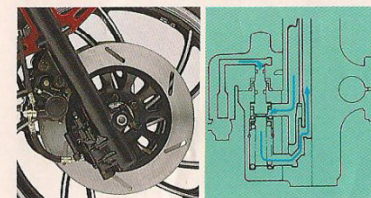
The modern styling of the XJ750 is well in line with its technology — shrouded handlebars with no visible cables, rectangular matching head and fog lamps, "italic" cast alloy wheels and integrated tank, seat, side panels and rear light cluster.

A ride on

Yamaha's XJ750 is a glimpse into motorcycling's future.



Seven vital machine functions are permanently monitored by the on-board computer. A careful electronic eye is kept on the fuel, brake fluid, oil and battery acid levels, as well as side stand position and lighting system. Any failures are immediately flashed to the rider via the liquid crystal display panel in the instrument console. Riding is safer and routine maintenance reduced.

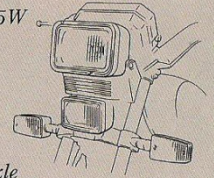


Anti-dive forks were first developed for Yamaha's GP road racers. Now the technology has been passed on to the XJ750. By restricting the downward movement of the front forks under heavy braking, the adjustable anti-dive units improve steering control, as well as both front and rear braking efficiency. The rider can brake harder at the front without losing control and harder at the rear because the bike stays level so that the rear tyre remains in contact with the road. The anti-dive mechanism operates by using hydraulic pressure from the braking system to mechanically restrict the flow of damping fluid through the forks. Their movement is restricted, without affecting the smooth damping action.

The stepped dual seat drops the rider's set height to only 780mm for ease of control at slow speeds in traffic.

The switches are neatly clustered within easy reach for positive, one-finger operation.

To match its performance, the XJ750 has a penetrating 60/55W quartz-halogen headlamp for safe night riding. Hazardous weather conditions are handled by a matching rectangular foglamp.



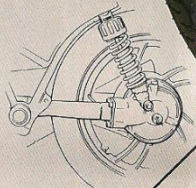
The wrap-around design of the rear light gives extra side-on visibility as an added safety feature. The double-bulb system eliminates the dangers of a bulb blow-out. The passenger gains extra confidence from the styled-in aluminium grab bar.

The air-assisted, leading axle forks, which give 150mm of firm, progressive wheel travel, are easily adjusted by air pressure valves at the top.

The rear shock absorbers have an easy-to-operate, four-stage damping adjuster in addition to the conventional coil spring pre-load tensioners.

Effective control of lubricant temperature is vital in any high-performance machine. That's why the XJ750 has an oil cooler fitted as standard.

The massive 257mm twin front brakes have slotted discs that allow expansion to prevent heat distortion. An anti-dive mechanism keeps the bike level under heavy braking.



The XJ750 shaft drive system is tough and reliable but with a lightweight shaft to minimize the torque effect of its rotation. It runs through the left-side swinging arm tube to stay clean and maintenance-free. A built-in damper eliminates drive train judder.

The four-into-two exhaust system is specially tuned to the engine's power pulses to enhance power and reduce noise. Upswept silencers give maximum cornering clearance.

The gear pedal is placed in perfect relationship to the rearset footrests by a remote linkage connection to the positive action five-speed gearbox.

An electronic governor guarantees correct ignition timing throughout the engine's speed range. The transistor-controlled system is totally maintenance-free.

The high-style "italic" cast alloy wheels are shod with high-performance "H-rated" tyres for hard riding in perfect safety.



Slut