YAMAHA DT250MX

Yamaha DT250—Sets a doub

It's not uncomplimentary to suggest that Yamaha's DT250 Enduro machine sets a double standard . . . especially when that double standard is the best possible compromise between the demands of street and off-road riding ! In each of these areas the DT250 sets riding standards that other manufacturers can only hope to emulate. The superb Yamaha DT-Series power unit has been the subject of constant improvement and development since it first appeared a decade ago. Now it represents the ultimate state of the art in the attempt to design a power unit that will perform as well on the open road as it does on the moto-cross track.

Versions of this have powered Yamaha moto-cross machines to World and National Championships and the latest DT250 features another direct development from the racing scene . . . the monoshock cantilever chassis. Proven both in moto-cross and road racing, the monoshock chassis revolutionised the world of suspension development when Yamaha introduced it five years ago. And Yamaha is still the only major manufacturer to utilise the cantilever frame for a volume production machine.

In every respect, the DT250 represents the pinnacle of "dual purpose machine" development. It has everything that the serious off-road rider needs, including such refinements as unbreakable plastic front mudguard, re-settable trip meter and speedometer for the enduro enthusiasts, a chain tensioner and rubber boots on the front forks to keep out the water and dust.

On top of all this, the 23.0 HP (16.9 kW), five-speed power unit and lighting equipment that meets all Government regulations (it has turn signals too) mean that the DT250 is a more-than-respectable performer on the street.

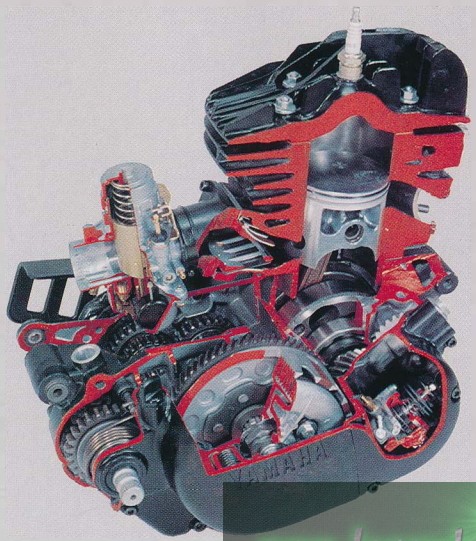
No wonder Yamaha don't mind when they hear about the double standards of the DT250 . . . because, on or off-road, those standards are the highest possible.

Engine

Heart of the DT250 is the single cylinder 246 cc engine that produces a healthy 23.0 HP (16.9 kW) at 6,000 rev/min. Maximum torque is produced only 500 rev/min lower down the power band, so the pulling power of the two-stroke motor is immense.

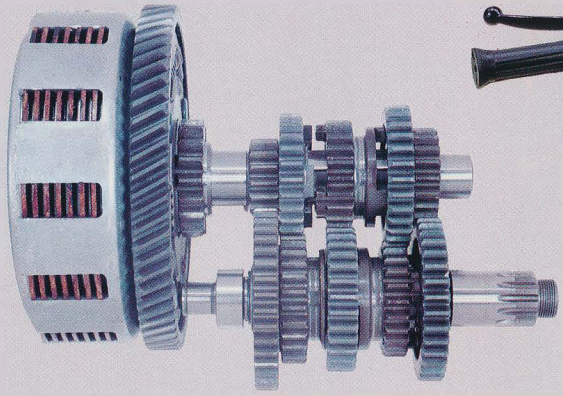
Yamaha Autolube oil injection means that you don't have to worry about pre-mixing oil and gasoline out in the wilds and a reed valve Torque Induction system brings the most efficient carburetion possible.

The exhaust pipe and silencer are routed out of harm's way, high up under the tank/seat unit and out alongside the rear wheel but tucked neatly inside the sub-frame. Damage to the exhaust pipe during off-road riding could affect engine performance, so this high-level routing is a welcome safety measure in this regard. Another safety measure is the air cleaner that is mounted high under the seat with high-level air vents. This means that the rider can ford deep streams without drowning out his engine !

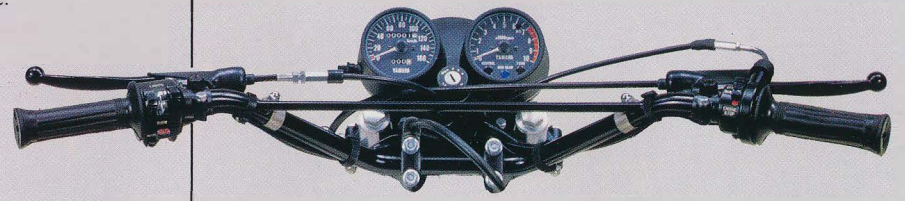


le standard with a difference !

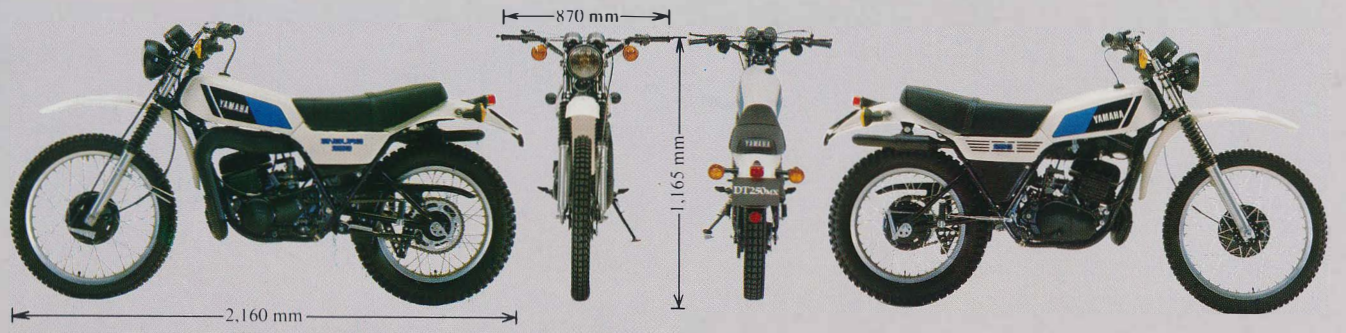
Transmission
The five speed gearbox has been designed with the abuses of off-road use in mind, with the straight cut gears running in oil for constant 100% lubrication. The clutch is light, yet strong and capable of dealing with just about any situation the off-road rider is likely to encounter. The strength of these components, of course, is an added bonus to the rider who wants the DT Yamaha as a thoroughly reliable street machine.

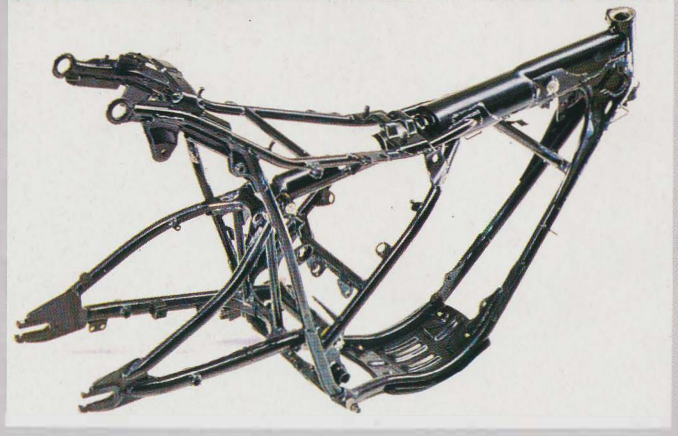


Reed Valve Torque Induction
Yamaha's were early on the scene with reed-valve Torque Induction and have proved its usefulness by winning both road race and motocross World Championships with Torque Induction power units. Flat, stainless steel reeds are set in a V-shaped block that is then mounted in a special housing in the induction tract. Fixed to the V-block at one end only, the natural springiness of the stainless steel reeds keeps them closed until they are "sucked" open by the pressure drop in the engine that occurs when the piston is on its downward stroke and drawing fuel into the cylinder. The opening of the reeds allows in the fuel that the engine needs. Then, as the piston rises to ignite the fuel mixture in the combustion chamber, the equalising of pressure between the cylinder bore and the outside air allows the reeds to snap shut once more. The nett result is that fuel is only drawn into the engine "on demand". Most two-stroke engines are still passing fuel into the motor when the piston is on its ignition stroke, which results in messy blowback through the carburetor. More important yet, the "blowback" is also interfering with the fresh charge coming in and so leads to extremely inefficient carburetion. Torque Induction feeds fuel to the engine only when it is necessary and this brings with it huge gains in tractability and economy. Just another feature to help make the Yamaha DT Series some of the best Enduro bikes in the business.



Lighting and Instruments
In keeping with its function as a dual-purpose machine, the DT Yamaha has a powerful headlight and bright turn indicators that comply with all Government regulations for road-going machines. Useful, too, if you happen to get caught by darkness on a cross-country run ! The speedometer (with resettable trip meter) and tachometer are angled up towards the rider at 25 degrees for easy viewing and are softly back-lit for easy night-time reading.





Chassis and Suspension

The fitting of the cantilever Monoshock system was a move that put Yamaha way ahead of the competition in the "dual purpose" sphere. Magazines last year described the DT Series as "the best handling dual purpose machines on the market" and the reason for this was the decision to use the monoshock chassis that had proved so successful on out-and-out motocross racers.

Giving much more rear wheel travel than conventional systems and a smoother, slower transfer of weight from the front of the machine to the rear (and vice versa), the monoshock follows the contours of rough ground in easy controlled fashion. The rear wheel is on the ground more of the time than with a conventional suspension machine over rough ground. This means that the rider can keep a constant flow of power going down without having to worry about excessive wheelspin.

Movement of the cantilever chassis is controlled by a single large suspension unit (hence the term monoshock) under the tank. It uses both gas and oil as a hydraulic damping medium. To complement the cantilever chassis, Yamaha use long-travel front forks that are fitted with protective rubber boots. These keep out mud, water and dust and allow the smooth fork action to be retained under all conditions.

SPECIFICATIONS

ENGINE

Type	2-stroke, Torque Induction, Single
Displacement	246 cc
Bore & Stroke	70.0×64.0 mm
Compression ratio	6.7 : 1
Max. horsepower	23.0 HP (16.9 kW) @ 6,000 rev/min
Max. torque	2.8 kg-m (27.5 Nm) @ 5,500 rev/min
Lubrication system	Autolube
Starting system	Primary kick starter
Primary transmission	Gear
Final transmission	Chain
Gearbox	5-speed
Carburettor	VM28SS
Clutch	Multi-plate, wet
Battery	6 V, 6 AH
Charging system	Flywheel magneto
Ignition type	Magneto, CB/Coil

DIMENSIONS

Overall length	2,160 mm
Overall width	870 mm
Overall height	1,165 mm
Wheelbase	1,420 mm
Min. Ground clearance	255 mm
Seat height	855 mm
Front fork travel	195 mm
Rear wheel travel	140 mm
Weight (net)	118.5 kg
Fuel tank capacity	9.0 lit.
Oil tank capacity	1.1 lit.
Tires front	3.00-21-4PR
rear	4.00-18-4PR
Brakes front	Drum
rear	Drum

**Specifications subject to change without notice.*

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