TY250B YAMAHA TRIAL

Watching the sun rise over a quiet lake, or experiencing the dynamic and graceful movements of forest creatures as they toil through the day, is the thrill of nature in action. To be where these things occur, YAMAHA has developed the new Trial TY250B as a machine which can take you virtually anywhere. Utilizing the experiences of Mick Andrews, the 1971 and 1972 European Trials champion, the TY250B has resulted in an all-round, off-the-road bike that is equally as good for serious trials-riding enthusiasts as it is for beginners. Combining durability that is inherently YAMAHA and outstanding features, the TY250B abounds in championship quality that is unbeatable.

TY250B

PERFORMANCE

Min. turning radius	1,600 mm (53.0 in.)
Min. braking distance	15 m @50 km/h (49.2 ft. @31 mph)

ENGINE

Type	2-stroke, 7-port, Torque Induction® Single
Displacement	246 cc (15.01 cu. in.)
Bore & Stroke	70×64 mm (2.756×2.520 in.)
Compression ratio	6.0 : 1
Max. torque	2.1 kg-m (15.2 ft.-lb.) @5,500 rpm
Lubrication system	Autolube
Starting system	Primary kick starter
Transmission	5-speed gearbox

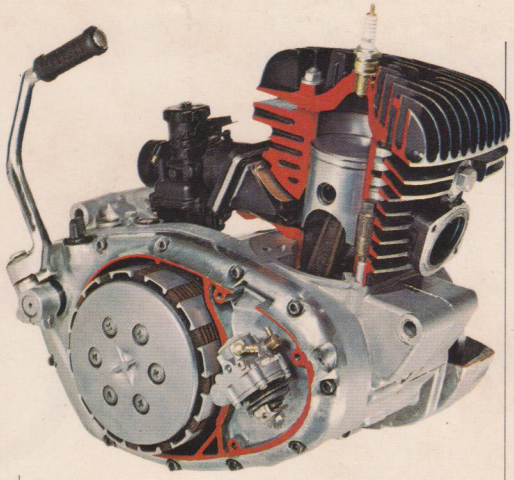
DIMENSIONS

Overall length	1,985 mm (78.1 in.)
Overall width	835 mm (32.9 in.)
Overall height	1,110 mm (43.7 in.)
Wheelbase	1,295 mm (51.0 in.)
Min. ground clearance	280 mm (11.0 in.)
WEIGHT (NET)	93 kgs. (205 lbs.)
FUEL TANK CAPACITY	5.0 lit. (1.32 U.S. gal.)
OIL TANK CAPACITY	0.35 lit. (0.37 U.S. qts.)
TIRES front	2.75-21-4PR
rear	4.00-18-4PR
COLORING	White/Competition Yellow

** Specifications subject to change without prior notice.*

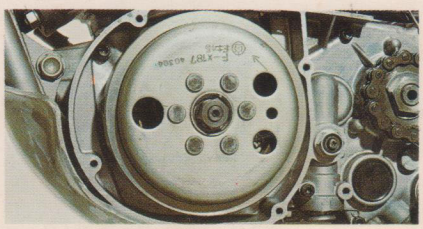
Features

Engine
The new TY250B is powered by an ultra-responsive, 2-stroke engine. Being constructed from aluminum with a highly-durable chromium cylinder sleeve and magnesium crankcase covers, the engine is both lightweight and has excellent heat dissipating characteristics for stable operation. The YAMAHA-exclusive "Torque Induction®" system is also included so that more power is available for use over the lower-and medium-speed ranges. Also included is a reed-valve intake assembly which assures a posi-tive fuel flow on demand, eliminating "blow-back" though the carburetor.

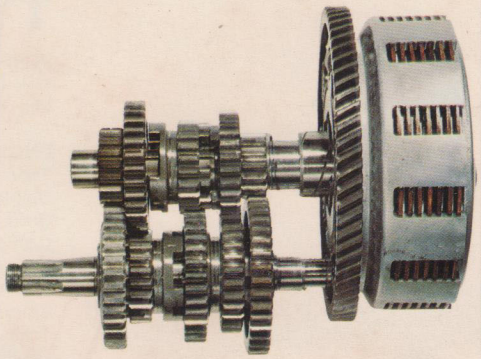


Autolube®
In order to eliminate the need for mixing the gasoline and oil, the TY250B includes the Autolube system, a YAMAHA-original mechanism which continually monitors the throttle opening and engine speed to automatically supply exactly the right amount of oil from a separate tank. Besides not requiring the oil and gasoline to be mixed manually, since precisely the right amount of oil is added to the gasoline at all times, the engine is naturally cleaner burning, and, therefore, its serviceable lifetime is much longer.

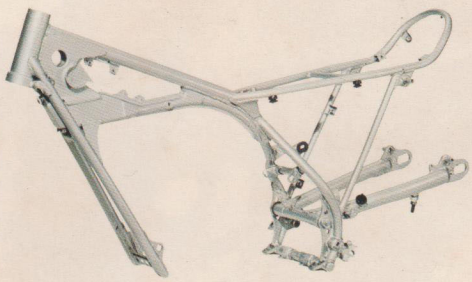
Carburetor quick-change lever
The carburetor of the new TY250B has a quick-change lever which changes the fuel-air mixture for optimum engine operation when riding on ordinary roads in between the sections. Regardless of the layout of the trials event, the engine is able to continually operate at peak efficiency with this quick-change device.



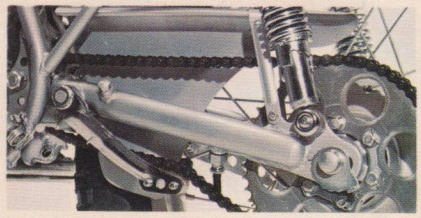
Flywheel and magneto
Because a trials machine is operated at very low speeds for the most part, the engine must be able to operate smoothly and not stall even at slow-walking speeds. This smooth operation is attained on the TY250B by the large flywheel and magneto mass so that their inertial force at low speeds will counteract the pulsing force due to the combustion stroke. Also, this mass has been critically selected so that the machine will still maintain good throttle-response characteristics.



Transmission
The TY250B utilizes a 5-speed transmission so that, while riding through a trials section, first, second and possibly third can be used with a comfortable overlap so that fewer shifts are required while the most efficient use of the machine's power band is realized. Fourth and fifth gears are included so that the machine can operate more smoothly in between sections or down an open road. Also, the shift-lever pedal is a spring-loaded, 45° angle, fold-away type so that it will not be knocked out of gear if hit by obstacles in the path.



Frame
The TY250B utilizes an extra-durable diamond-type desing. This frame design features a more slender tube, through the use of high-tensile-strength steel, to attain a lighter frame without sacrificing any of the machine's ability to withstand severe punishment. Also, the geometrical form of the diamond frame is ideally suited to withstand large stresses and strains encountered from any direction while maintaining overall machine stability.

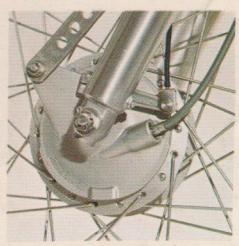


Chain tensioner and oiler
In order to prevent the chain from back-lashing when the engine is suddenly accelerated, a spring-loaded tensioner is attached to the rear swing-arm to maintain a constant chain tension. Also, one side of the rear swing-arm is utilized as an oil reservoir which drips oil on the chain, increasing the lubrication factor for the chain, and thereby increasing the chain's serviceable life.

Rear shock absorbers
The rear shock absorbers on the TY250B are a single-spring, hydraulically-damped, . . . adjustable type so that the rider can quickly adjust the tension of the rear springs to more adequately match the section to be be ridden. This type shock absorber has long been noted for its excellent cushioning characteristics which help reduce rider fatigue and allow maximum maneuverability while maintaining a stable machine attitude.

Skid plate
To protect the under portion of the engine from damage due to rocks, stumps and other hazards which are likely to be encountered on any trials riding section, a tough aluminum plate has been attached to the under side of the machine. Also, this plate helps prevent mud build-up around the engine which could decrease engine efficiency due to over-heating.

Brakes
The brakes, both front and rear, feature a special labyrinth-seal design which prevents water and dust from entering the drum and affecting the operation. These brakes are a magnesium, die-cast construction to further reduce the underspring weight of the machine, and have ample heat-dissipating capability so that the brakes will not fade even after repeated use. The foot-brake lever has been changed to a spring-loaded, fold-away type in order to prevent damage if it should happen to strike some obstacle in the path.



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