DT 100B YAMAHA TRAIL





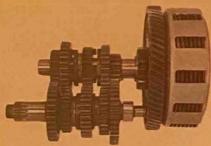
Features

Torque Induction a engine

The engine of this super-performing Enduro machine features 7-port Torque Induction, a new innovation developed by YAMAHA which increases intake efficiency, yielding more available torque over the lower-and middle-speed ranges. This is accomplished by the unique design of the transfer ports in the cylinder wall, the addition of a 7th port which traps compressed fuel on the intake stroke so that it can be used to completely purge the combustion chamber of burned gases, and a reed valve intake assembly which supplies fuel on demand according to pressure variations within the crankcase.

Autolube

When two-stroke engines were first adapted to motorcycles, the oil was generally mixed with the gas in the gasoline tank, and this mixing ratio was used for all engine-operating conditions. As a result, two-stroke engines became rather notorious for spark-plug fouling due to a poor combustion mixture. To end this problem, YAMAHA developed Autolube which automatically supplies oil from a separate tank to be mixed with the gasoline according to engine speed and throttle opening. This results in a more efficiently operating engine with a much more durable and longer useful life.



In order to achieve the best possible operational torque for the size of the engine and the weight of the machine, the transmission of the DT machines has been selected to offer easy riding with a minimum of shifting. Operation at high speed rotation within the transmission is an important consideration in the design for durability. With this thought in mind, the gears are all specially heat-treated to assure extra hardness and to greatly reduce the possibility of wear. Also, the gear ratios have been selected to offer optimum riding in the dirt as well as having ample speed for open-road riding.

Frame

In the motocross world, machines are not necessarily measured by how fast, but rather by whether they were able to finish or not. YAMAHA machines not only finish, but have, over the past years, placed at or near the top in world-championship races. This performance and durability is due, in a



used for the DT machines is constructed utilizing high-tensile-strength, tubular steel, which is the same design as used on the YAMAHA Motocross bikes and which carries the engine in an optimum position for a lower overall center of gravity, ylelding better maneuverability and durabillty even on the roughest



Front torks The front forks on the new DT machines play a very important role in supporting the frame and absorbing road shocks which could impair maneuverability and cause damage to the engine.

YAMAHA has, over the years, collected data from some of the most grueling motocross tracks in the world so that they could develop a front fork design that would adequately meet the requirements and be durable. The result of this painstaking research is aptly illustrated in the hydraulically-damped, inner-spring front forks of the YAMAHA world-championship Motocross blkes. This design is also used on the new DT machines.

Rear shock absorbers The rear shockabsorbers feature an adjustable, hydraulicallydamped, outerspring design which is ideal for both on-the-road and off-the-road

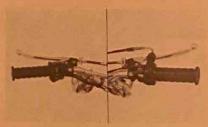


riding. This hydraulically-damped, outer-spring design coupled with the rear swing-arm effectively cushions the bike and the rider from the jolts and bumps incurred from rigorous off-the-road riding. The adjustable feature allows the rider to either relax the outerspring tension for smooth road travel, or make them more tense for a heavier load or when a stiff rear cushion is required for better maneuverability.

With brakes, three problems have consistently plagued off-the-road blke riders; fading due to excessive heat, grabbing due to moisture inside the drum and pre-mature shoe wear due to dirt and dust on the brake shoes. The brakes, both front and rear on the DT bikes, have more shoe area and better heat-dissipating characteristics, there-

fore virtually no fading. Also, they feature a special labyrinth seal construction which resist entry of water, and dust Thus ending the grabbing and premature wear problem.





Safety devices To assure a positive safety nature for the machine, the function switches have been placed for fast, convenient use, the condition of the brake linings can be easily checked



through the rubber-covered inspection hole, reflectors are mounted on the side and rear of the machine, the spring-loaded foot pegs fold back at a 45° angle when hit, and precision and speedometer is included for speed and distance indications.



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