DT400Byamaha trail





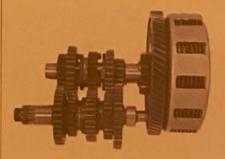
Features

Torque Induction 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.

Radial fin engine design

The problem of heat removal is a major consideration in the design of internal combustion engines. This is to say that there is a range of temperatures at which optimum performance can be expected, and temperatures outside this range result in, at the least, less efficient operation, and at the worst, engine damage. Therefore, the engine fin design is in a radial shape so that the maximum amount of surface is exposed for cooling which results in a more stable engine performance.



Transmission

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 heattreated 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 ranges for openroad riding.



C.D. Ignition
Contact-point
ignition systems
have certain
drawbacks. At high
speeds, the dwell
time, or time
that the points

remain closed, is drastically shortened, resulting in a lowering of the high-voltage output. Also, because the high-voltage coll is inductive, arcing when the points open causes point damage leading to the periodic need for replacement. With a capacitor-discharge ignition system, switching is accomplished with semiconductors, eliminating the need for points, and since the



charge-discharge time is many times faster than the motor can possibly operate, the high-voltage output remains the same at all operating speeds.

Autolube

The Autolube system, which was developed by YAMAHA, automatically maintains the most efficient oil flow to mix with the gas by constantly monitoring the engine speed and throttle



Frame

The durable double-cradle frame, which is the same design as used on the YAMAHA Motocross bikes, carries the engine in an optimum position for a lower overall center of gravity, yielding better maneuverability even on rough terrain.



Front forks
The front forks
have been
designed from
the experience
gained on motocross tracks
throughout the
world. Hydraulicallydamped, innerspring type
for maximum
control and
response.

Rear shock

The adjustable rear shock absorbers are equipped with "Thermal-Phase" heat exhangers to radiate heat from the shock-absorber oil thereby maintain-



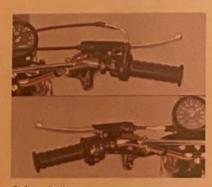
ing constant cushioning characteristics.

Brakes

The brakes, both front and rear, have much more shoe area and better heat-

dissipating characteristics. Also, these brakes feature a special labyrinth seal to keep out water and dust.





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

easily checked through the rubbercovered 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 tach and speedometer are included for speed and distance indications.



Other features designed to improve the performance of the machine are magnesium side covers for the crankcase and a more compactly constructed clutch assembly to make the engine much lighter thereby increasing the machine's power-to-weight ratio, the front hub is an improved conical design with the brake diameter increased for better performance, the foot pegs are an all-steel construction for more durability, and they are designed with a saw-tooth upper surface to prevent the foot from slipping even when the pegs are wet.



THE CYCLE SPOT

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