

cycle guide

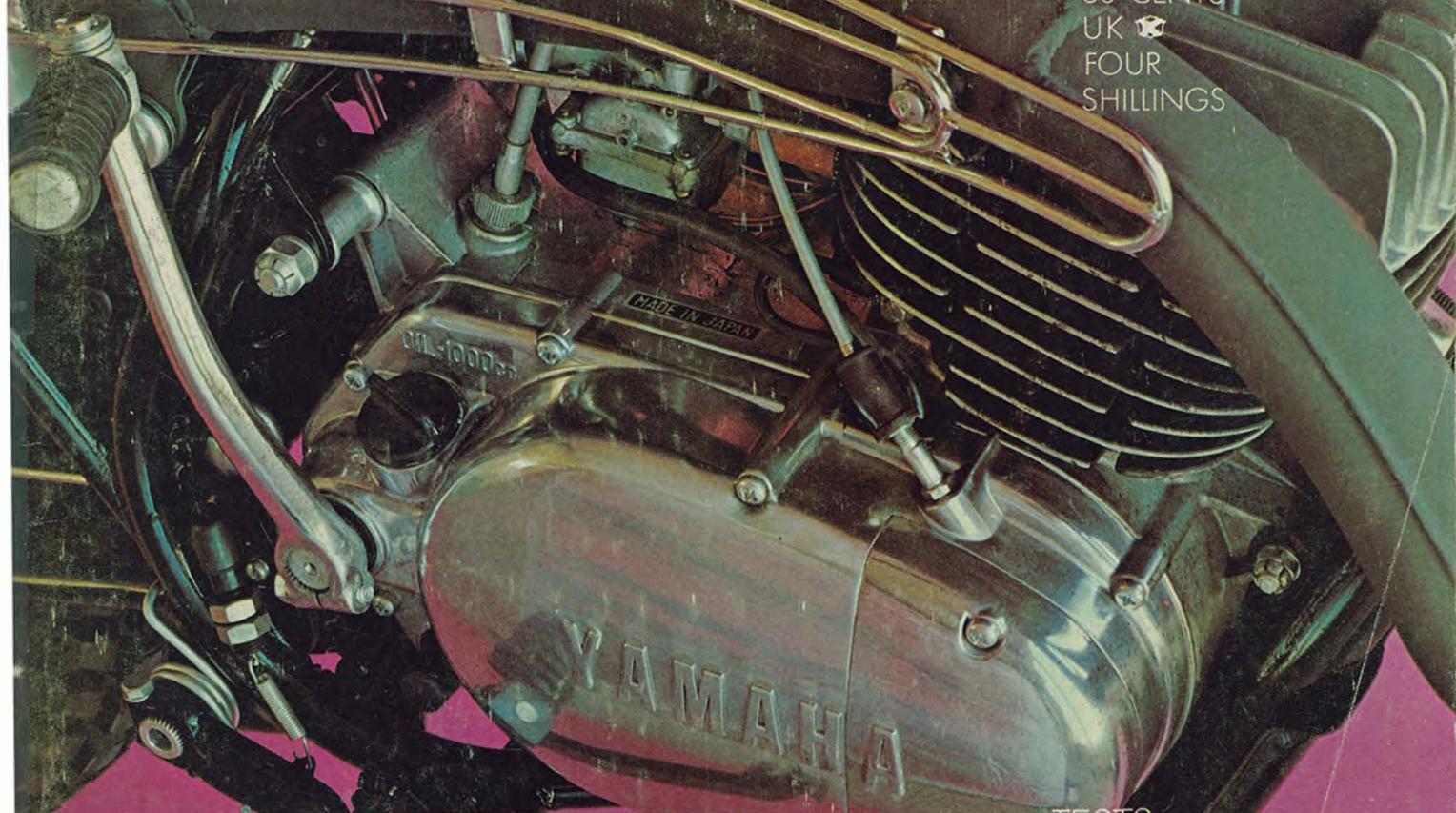
MARCH, 1970

50 CENTS

UK 

FOUR

SHILLINGS



TESTS:

**H-D BAJA
100**

**YAMAHA
DT-1C
ENDURO**

**BSA 750
ROCKET**



MOTORCYCLE AERODYNAMICS · HUSKY TWIN · 1969 INTERAM
THE ULTIMATE PROJECT PART TWO · MAICO TEARDOWN

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It's a better machine



250 DT-1C ENDURO

Five-port power makes it strong. Autolube makes it efficient. Wide-ratio 5-speed gearbox makes it easy. The lower low gear plus the wide power band make for the ultimate performance in any kind of terrain.

POPULAR REPLAY

With very few changes, the new DT-1C is still a leader in its class.

CYCLE GUIDE

TEST ●
REPORT





The Europeans have, for the most part, made motorcycles with certain characteristics and inherent design features for years. With a number of models one might be hard pressed to identify the year of two identical machines though one might be the third or fourth generation. The Japanese on the other hand have made rapid and drastic changes in production and design. Even an expert finds it hard to identify two Japanese machines of the same make and model that may only be a year or two apart.

Sales philosophies differ also. The Tiger Cub remained an export product to the U.S. for many years past its prime.

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Whereas the Japanese have a different philosophy we therefore, find it unusual to see a Japanese model stay on the market with the same outward design for more than a couple of years, without a major facelifting. The only time this has happened is when a marketing pro made an over optimistic estimate of sales and one of the manufacturers has been stuck with warehouses full of 'hard to sell machines.' This has happened to a lot of manufacturers, regardless of origin.

The Yamaha DT-1 Enduro is the classic example of a design philosophy reversal by one of the Japanese manufacturers. Kind of like a Volkswagen story.

Few if any changes on the outside, a lot of improvements on the inside. The first DT-1 was white, the next year's model gold, and this year's red. No other exterior changes, the same logo, the same style gas tank, the saddle remains the same, and so on down the line. Again, this is unusual for the Japanese.

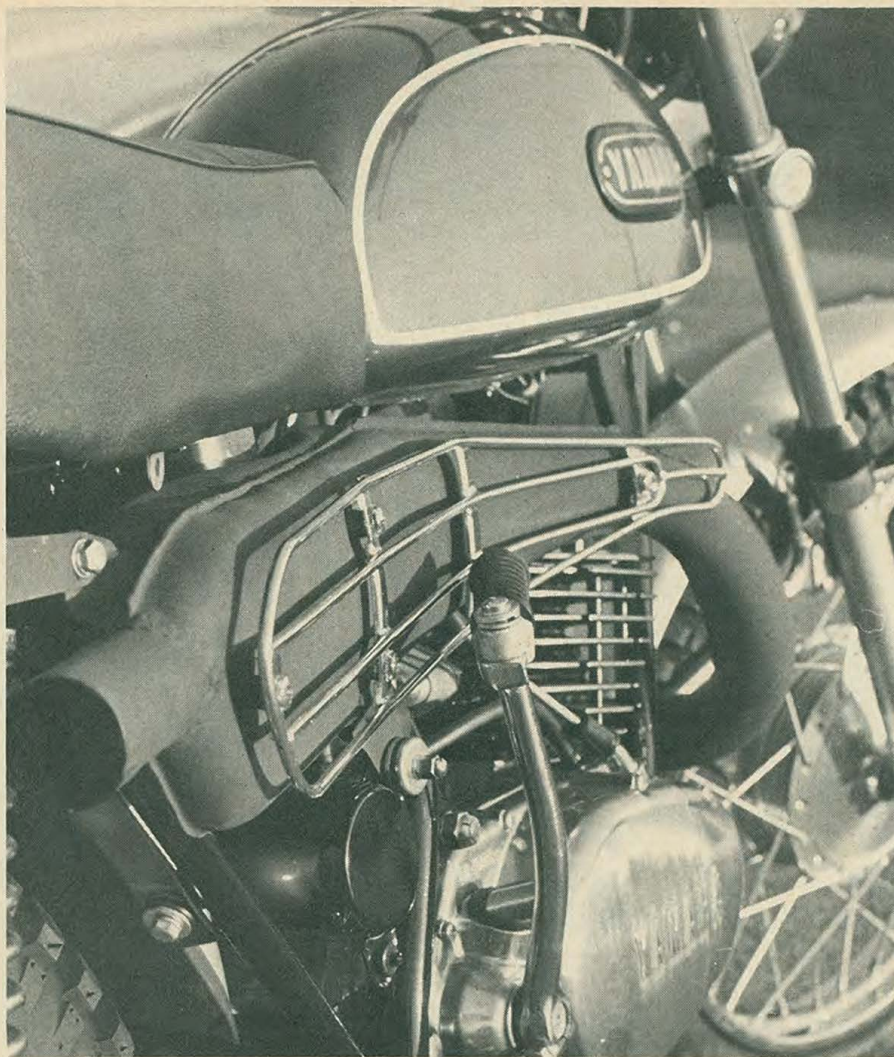
But, why change a good thing? Why not just improve it? And so they have. We can't say much of anything about the appearance of the DT-1 that hasn't been said before except it's red. Its popularity and the consumer demand classifies it as almost a classic in its own time. It's attractive to the off roader, as well as the in town rider.

The quality of the finished product has improved ever so steadily as production continued. The painting is getting better. The overall construction of the machine has been handled with care. The welding leaves little to be desired. One of the invisible areas of improvement has been the incorporation of beefier material in the head stock and engine mounting brackets. This has solved some of the weaknesses that some of the early DT-1 frames were afflicted with.

The DT-1 is one of the few machines that was brought into existence, from the ground up, by the research department here in the U.S. It wasn't one of those motorcycles that suddenly appeared in the distributor's research department with a note hanging on it saying, 'modify the appearance to best suit the American market.' The research department here decided what and how the 'enduro' was to be. The factory was given a lot of machines to study such as the Husqvarna and Bultaco 250s. From these and other popular machines they learned a lot from proven design work. This has meant that the customers have benefited by being able to buy one of the most popular all purpose machines now on the market.

The suspension of the DT-1 has gone through a series of changes to improve their operation. The rear shocks and springs have been redesigned to better match each other in the damping and spring rate departments. The result is a much better handling motorcycle in the rough. The front fork damper units have been redesigned and now have less moving parts than the early models. This has reduced the internal friction (less moving parts) and also improved the damping action. To look at the appearance of the suspension units, one would think that there has been no change as they look identical to the original items. Again, no need for a change here as the forks and shocks are attractively functional looking units.

In appearance the engine has not been changed one iota. The only exterior change here is that the cylinder fins are now painted black for improved heat dissipation and the crankcase covers have been polished. But again, a look on the inside shows that the Yamaha engineers have been hard at work back at the factory. The crankcases of the C model are entirely new. They have been beefed up considerably in all of the stress areas. Actually the new cases are all but identical to the prototype 360cc



The new DT-1 has retained the very slim lines of its predecessors. The heat shield protects the riders leg, but the kick arm gets in the way when standing.

items. The only difference being the location of the cylinder studs. This is good thinking as this will permit the more aggressive owner to go to the 360 specs with minimal effort. Most importantly it makes the already proven engine even more robust.

The engineers haven't stopped there. The clutch plates were changed to an improved type a while back. The C models have new and stronger springs in the clutch (also from the 360 prototype). The crankshaft seals have been redesigned and improved, thus eliminating any leakage problems. The port timing of the cylinder has been changed to increase the horsepower, giving it a gain of two more ponies.

These, and other, improvements in the power plant have resulted in a much stronger running engine throughout the entire RPM range. The low rpm power is much better than with some of the earlier models. This is a great aid to the

duffer, or any rider for that matter. Getting out of those tough spots or up that difficult hill is far easier now with the improved low and mid-range power. Having more beans through the entire range makes the DT-1C easier to ride than before. The importance to shift down when you need that extra bit of acceleration has been lessened.

Overall, the power available for the new DT-1C is more than adequate for just about any set of conditions short of those impossible situations. It has gobs of low end for creeping along, and yet it will zip along at highway speeds. All of this muscle doesn't come about just from the engine's power output though. The five speed constant mesh transmission used in the 250 Enduro has already proven itself in the heat of battle. The cam follower on the shift drum has been strengthened and made longer. This to eliminate a popping out of gear situation that occurs with some of the older and more used machines. It also makes the shifting more positive and easier. The overall gear ratios and spacing between is perfectly matched to the engine's power output. For most riders and conditions, there should be little want for a gear change other than a possible

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The saddle provided maximum comfort. The high tail light is one area that could use redesigning as it catches the leg when mounting the machine.

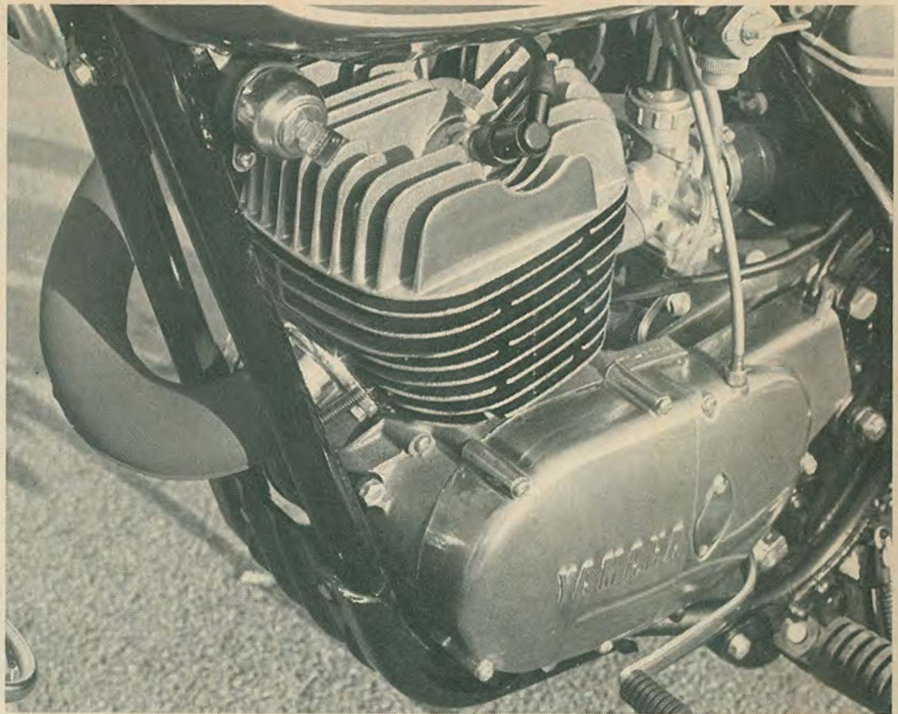
Under the seat lies the air cleaner, battery and oil tank filler spout. The air cleaner is easily taken out. It's the washable foam type. Battery is very small.

lowering of the primary sprocket for the real off road enthusiast.

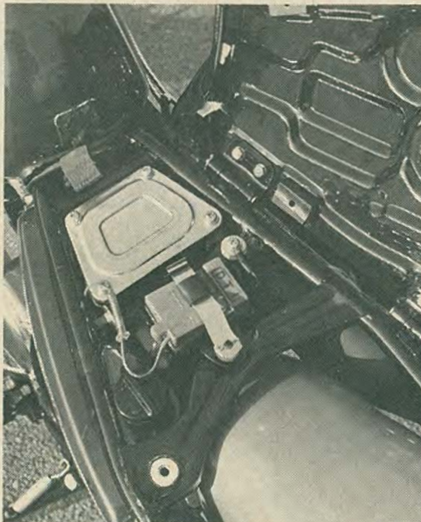
But to put a little frosting on the cake, Yamaha has a wider ratio gear box available for the more serious enduro rider. The cost is relatively inexpensive. As mentioned before, the clutch has undergone some minor improvements. We can't really say too much about the clutch as it operated flawlessly under all conditions. It would be a tough situation indeed that would pose any problems here.

In the area of rider comfort one would have to go a long way to find a machine more suited to meet this need. There have not been any changes in the seat, peg position or levers. The handlebars sweep back a bit more than the early models and the handgrips are of the cushioned rubber type. Small changes, but they add up to even more comfort for the rider. In fact they will save a lot of riders from spending a few bucks for these items as accessories. The only area of slight discomfort is the position of the kick arm. The foot peg part of the kick arm catches a rider's leg on the inside of the calf when in a standing position. If you're the type that tries to grip the gas tank with your knees when

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The engine design of the DT-1 is now a hallmark in its field. The head has an extra hole for another plug or a compression release. Cases are polished.



standing, this can be an area of irritation. Overall though, a rider should be able to spend many a comfortable hour in that wide saddle with little complaint.

One source of bother that seems to be inherent with most of the Japanese machines is finding neutral when at a stop. This seems to be associated with the shift drum type mechanism that most of them use. This is one item that is still part of the DT-1 makeup.

The wheels and tires of the Enduro are the same as its predecessors. The front loop is mounted with a 3.50x18 Dunlop trials universal and the back has a 4.00x18 tire of the same tread type. The rims, hubs and spokes are more than up to the job, from just trail riding to flat out racing. The proof so this is listed on the finisher list of any scrambles, desert or enduro event. The brakes have been improved for off road use since the first models in that they don't grab and lock up. These newer models

(including our test machine) have beautiful braking action off the road and provide an adequate anchor on the pavement. Rim (or tire) locks are standard equipment to keep the tire from spinning on the steel hoop with low air pressure.

The electrical components have also been modified since the early models. A choke coil has been added to eliminate any possibility of overcharging at high RPM that can result in burned out bulbs. Other than this the rest of the flywheel magneto electrical and ignition system is virtually the same. As with all the other Yamahas, the lighting is superb. A sufficient amount of illumination is available both front and rear. There has been a slight rewiring job done to permit the tail light to work when the engine is off and the key in the light position. This, to pass some of the new laws concerning lighting requirements.

As with all Yamaha two strokes, the DT-1 comes with an automatic oil injection system, thus eliminating the pre-mix method. The fuel tank is identical to all the other early 250 enduro models. It holds enough fuel (2.5 gallons) to take the machine for at least 75 miles under average riding conditions.

Upon the release of the first DT-1's, a new era of recreational motorcycle riding started. The average rider and even the beginning motorcyclist was able to walk into a store and buy a machine right off the floor that would carry him to places he never imagined he could

