



# YAMAHA AT-1 ENDURO AND AT-1M MOTOCROSS



— A Pair Of Not So  
Identical Twins

## **CYCLE WORLD** **IMPRESSION**

**F**EW MOTORCYCLES have met with such instant popularity as the Yamaha Enduros. Since their introduction to the American scene a year and a half ago, Yamaha has been besieged by requests for the bikes in excess of the giant factory's ability to produce them. When a manufacturer the size of Yamaha is back-ordered 30 days, you know that an enthusiastic new market has been tapped. And it's not just kids who are buying them. Adults who've scarcely given motorcycles a thought have now been caught up in the whirl.

Bearing in mind that these machines have only a 50-in. wheelbase, their behavior in the dirt is delightfully forgiving. Particularly the lighter (by 14 lb.) and more powerful AT-1M. It can be thrown around with gusto and derring-do and still remain controllably between rider and ground. The test bikes also proved to be good sliders easily steered by twisting the throttle.





Even though the large, wide seat is extremely comfortable, it will likely see little use, as handling is best when weight is concentrated on the pegs rather than higher up on the seat.

Under more sedate circumstances, however, one could spend a long time in the saddle without discomfort. The seat, footpegs and hand controls are arranged in such a way that the AT-1 feels more like a large touring machine than a small displacement dirt bike.

It is general practice for racers to cut off an inch or two from the footpeg ends so they won't dig in when the bike is severely leaned over. The Yamaha footrests are rather short to begin with, so in all but the most extreme cases shortening will not be necessary. They aren't so stubby that booted feet won't stay on. But the bike must assume a radical attitude to cause them to drag. The folding pegs are spring-loaded.

Because these motorcycles are designed primarily for off-road use, brakes were purposely limited in strength. In conditions of marginal traction they transmit enough feedback through the brake levers that wheel lock-up can be easily avoided. Braking on dry pavement is also smooth and firm. Indeed, it is better than that of several lightweight street machines we've tested.

Both the Enduro and the Motocross models use Dunlop Trials Universals of Japanese manufacture, those on the

AT-1M being slightly larger than the Enduro's boots. Because of this type of tire, traction is rather marginal through sand washes and the like. But on a relatively hard packed dirt surface, the bite is very good.

Because of the AT-1M's wilder state of tune, sprocket sizes have been altered reducing the secondary ratio (raising numerically) from 3.214:1 to 3.267:1. This gives the AT-1M a five-speed spread between a 40:1 low and 10:1 high gear. And the ratios are well chosen as it is no problem keeping the engine within its power band with diligent shifting.

A pleasant surprise was the trialing talents of the stock Enduro model. It has good low end punch, excellent balance and reasonably light weight. With appropriate gearing, lower footpegs, and a different handlebar this 125 is quickly adapted to playful plonking through the nadgery. Also, don't forget that the bike has a five-speed gearbox allowing reasonable speeds between sections.

The transmission works well. Never did any hang-ups or missed shifts occur with either of the bikes, and this in the heat of some pretty close racing. Shift lever travel is short and crisp. So short, in fact, that a rider unfamiliar with the machine may think at first he has not shifted gears.

Because the motocrosser has been hopped up considerably, it is under-

standably peaky. It has a good deal of power when "on the pipe" but is not too aggressive below 5000 rpm. For this reason the "Motocross" moniker is a misnomer. The bike is more of a natural for scrambles and TT. It lacks the necessary flexibility for the ups, downs, and loamy conditions typical of motocross racing. Perhaps a bit of experimentation with expansion chamber shape will broaden the torque curve sufficiently.

The AT-1M also boasts a 26-mm carburetor instead of the Enduro's 24-mm unit. The "M" has considerably wilder port timing than its more mildly tempered brother, along with a flywheel magneto in place of the battery-coil ignition. Together with a bulbous expansion chamber and high compression head, these modifications result in a horsepower boost from 11.5 at 7500 rpm to a genuine 18 bhp at 8500 rpm. For a 125-cc motorcycle these are very respectable figures. Yet the two machines show little sign of being temperamental. They were tested in a variety of weather conditions, and high performance two-strokes can be persnickity about temperature or humidity changes. The easy going Enduro always showed a pleasant and willing disposition, as was expected. But the rather highly strung "M" also was eager to race, regardless of climate. One would at least expect to perform a jet change or some minor adjustment but no such attention was needed.

Fork action on both test bikes is quite good. Travel is generous with bottoming occurring only under the most dire conditions, such as deep chuck holes and steep drops. The rear dampers are excellent for all but the most abusive off-road conditions. They're firm but not hard, allowing just the right amount of give. But for the rider desirous of a still stronger suspension, the front fork and rear dampers of the Yamaha 250 DT-1 will bolt on without modification.

In all, we like these 125s for several reasons: the Enduro's flexibility, light weight and fine handling give it a versatility rare in machines of that price range. It is a trialer, mountain trailer and a fine 125-cc enduro motorcycle ready for the rough stuff. It is also equally at home on city streets, nimble, strong and sufficiently spirited for the daily rigors of surface street travel.

The AT-1M is a ready-made racer with gobs of horsepower (for a 125) and excellent handling. It displays a forethought of design seen in only the best European products costing \$100 more. And lastly, it offers the most comforting trait of all, reliability. The bike was thrashed for hours on end, the only unpleasantness being a fouled spark plug sustained midway through the test. Testimony indeed, that it demands so little and delivers so much.

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