

Dirt Test

Gassing it out of town late one Friday afternoon with our newly acquired DT250 tucked neatly away in our van, we couldn't help but realize the impact Yamaha's DT enduro series has had on the motorcycle public. It seemed that every other van, RV and pickup that was bound for a weekend of recreation had a DT Yamaha strapped on as if it were an integral part of the fun package. Funny thing about most of them, they're usually several years old, in stock form or stripped of their street legal running gear, and all looking as though they'd been through World War III. Interesting thing about the people who own them too—they're not racers or enduro fanatics, but just plain ordinary folks using the DTs for what they were intended—short hops to the grocery store, commuting to work and back, teaching the youngest the basics of falling off and an occasional venture away from the campfire.

This fundamental idea of supplying the public with a simple, reliable dual-purpose "do everything" fun bike has worked well for Yamaha, which is why they've left the bike relatively unchanged since it was first introduced. Naturally, over the years they've changed the fenders, pipe, and outward appearance a multitude of times, but only once, in '74, when they went to a semi-motocross frame, has the DT seen any other major alterations.

This year, with enduro sales seemingly headed towards a dark, bottomless pit and an increasing number of manufacturers spitting out specialized bikes like GM spits out Chevys, Yamaha figured this to be a prime time to totally revamp the DT—new life, a new look and new performance that would once again inspire the dual purpose enthusiast. And what better way to create excitement than to convert it to a monoshocker, the suspension system that initially vaulted their motocrossers, and ultimately the whole company, into the winner's circle.

With the revolutionary suspension system now incorporated into the DT, it takes on a new look, one that says "Hey, look, I'm totally new." And look we did, and what we found was a completely fresh motorcycle newly built from the ground up. Those who owned earlier models will find few similarities between the old and the new, in both looks and performance.

Why did Yamaha wait three years after the monoshock system was introduced before they transplanted it into the DT? It's simple. There was

THE DT250D IS YAMAHA'S FIRST STREET-LEGAL MONOSHOCKER...

IT REALLY IS THE DUAL-PURPOSE PACE SETTER!





absolutely no way they could adapt the earlier monoshock, with its large gas reservoir bulb, to the existing frame, or to any other frame, for that matter. With the shock running underneath the backbone, there simply wasn't enough room for the shock, pipe, battery, tool kit and air box to fit in. Therefore they had to wait until a new shock was developed, one that was slim and trim that would squeeze into the smallest space. And that's exactly what happened.

Called a De Carbon shock, after Dr. De Carbon, the holder of the patented process in which the gas and oil inside the shock is kept separate, it looks very similar to your normal everyday gas shock. Yamaha now uses it on all their latest YZ motocrossers, their IT series and the latest DT as well. The DT version, however, is slightly shorter and the innards have been changed somewhat.

To accommodate the new shock Yamaha designed a totally new frame for the YZs and ITs, one that's lighter, stronger and specially made to mate perfectly with the monoshock unit—it engulfs the shock into the frame backbone as if it were nonexistent. The DT, likewise, got the same treatment, but its frame is somewhat of a compromise between the two competition models. They're all similar in construction in that the single tube backbone with its accompanying braces no longer exists—instead it's been changed into a one-piece stamped backbone that's hollow and allows the De Carbon shock to slide inside.

One nifty little item is an adjustable collar located at the base of the shock that's accessible only after you've removed the seat; it's designed so you can manually set the pre-load on the spring. Looking at it from the rear, turning the collar clockwise increases the tension and stiffens the ride; turning it counter-clockwise reduces the pre-load for a softer ride. We played with it like a new toy and found that it actually had little effect unless the collar was moved to its maximum setting in either direction. Even then it does little and ends up being a simple device for altering the seat height of the bike.

Even though a little fakery is incorporated into the monoshock, there's no snow job in realizing the benefits of the new suspension. Picture this: 5½ inches of controlled rear wheel travel as opposed to 3½ inches of conventionally sprung DTs, add close to another inch of travel onto the front forks (7.6 inches total travel) and mix in some early YZ250 damping characteristics, and the result is a DT that handles like no other before it.

YAMAHA DT250D

We spent a full weekend on the bike pre-running the upcoming Parker 400 offroad race and everyone who managed to ride behind our test machine was quite impressed as to how this street-legal stocker could negotiate the rough terrain. There's no getting around the weight of the DT, it's there, and still bottoms the suspension occasionally—but contrary to earlier models that resembled bucking broncos from the rear, this model sports enough travel and damping to keep both ends in relative control. We've never seen a DT go straight through the rough stuff like this one. Don't expect it to handle like the featherweight MXers—it

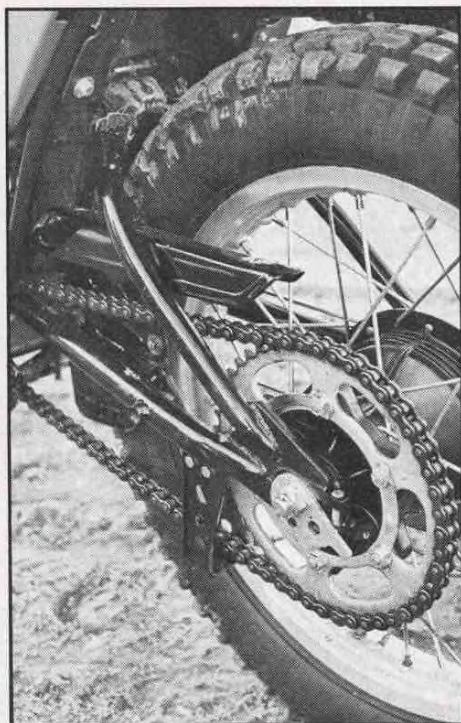
won't. But it will deliver a degree of control and confidence that was always lacking in the earlier DTs—even at higher speeds.

Looking at the spec sheet, we found that Yamaha has retained last year's frame geometry with the slight exception of changing the caster from 59-½ degrees to 60 degrees; this should help the DT steer better but we found it still likes to push the front-end as they always have in the past. Offroad there's only one way to steer it and that's sitting on the gas cap!

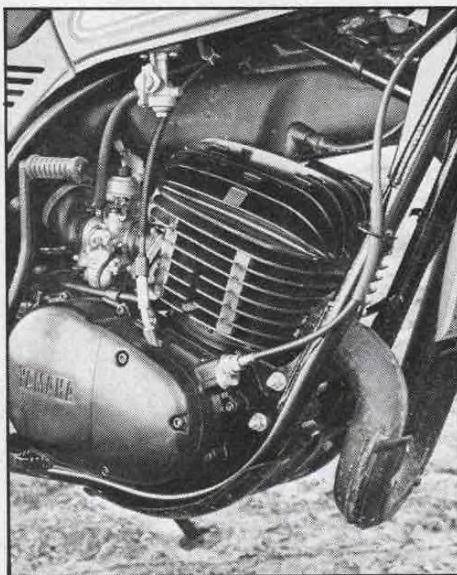
The triangulated swing arm is similar to the YZ's and is fitted with the IT styled "snail cam" axle adjusters; chain adjustment is now a simple and quick process. The swing arm is

bulletproof as are the new aluminum alloy rims that replace the steel jobs that would bend simply by kicking them. Both came back from Parker unharmed—and if you've ever been to Parker you know it's famous for rocks, cross-ruts and ultimately flat tires.

And what would a new DT be without a few changes to the engine? Inside we found brand-new lightened engine cases surrounding the crankshaft, a partial explanation to the 250D being six pounds lighter than the year before. Pulling the reed petal assembly out we noticed eight petals instead of the previous six—they occupy the same space but are smaller in size; Yamaha made the change to increase the life of the



Triangulated swing arm is similar to YZ series and features the "snail cam" type axle adjustment. Rear footpegs can be installed.



Newly designed up-pipe and a smooth oil pump cover mark appearance differences. Inside you'll find new engine cases, new eight petal reed and slightly altered porting.



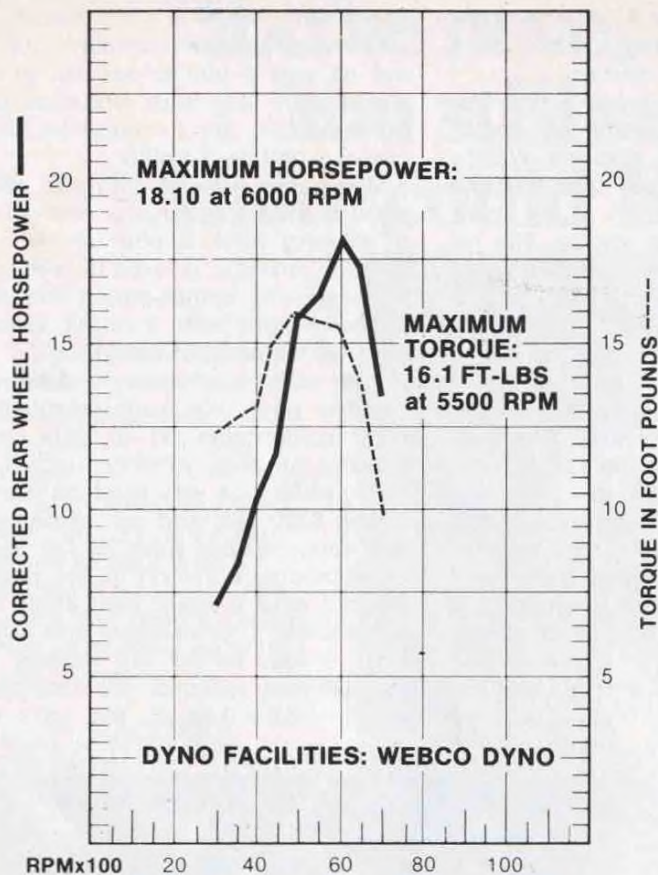
Chrome on the DT is becoming a rare commodity. Headlamp housing is now totally plastic. Headlamp puts out more wattage than last year's for better nighttime visibility.



Another Yamaha first—rubber-stemmed rear blinkers that give under impact.



Undoubtedly the most improved and sophisticated DT model since it was first introduced in '68. Monoshock rear suspension can now match the power output of the engine.



PRICE

YAMAHA DT250D	\$1089
CAN-AM 250 T'NT	\$1600
SUZUKI TS250B	\$1140

HORSE-POWER

YAMAHA DT250D	18
CAN-AM 250 T'NT	29
SUZUKI TS250B	16

WEIGHT

YAMAHA DT250D	282 lbs
CAN-AM 250 T'NT	264 lbs
SUZUKI TS250B	276 lbs

RIDING RANGE BASED ON MILEAGE AND FUEL CAPACITY

YAMAHA DT250D	90 miles
CAN-AM 250 T'NT	97 miles
SUZUKI TS250B	100 miles



TEST BIKE: YAMAHA DT250D

Price, sugg. retail.....\$1089

ENGINE

Type.....Two-stroke single (reed valve)
Bore/stroke.....70 x 64 mm (2.76 x 2.52 in.)
Piston displacement.....246 cc (15.0 cu. in.)
Compression ratio.....6.7:1
Carburetion.....Mikuni VM28SC
Air filtration.....Oiled foam
Ignition.....Flywheel magneto
BHP @ rpm.....18 @ 6000
Torque @ rpm.....16.1 lbs/ft. @ 5500
Lubrication.....Oil injection
Electrical power.....6V generator
Battery.....6V, 6AH

DRIVETRAIN

Primary transmission.....Gear (2.826)
Clutch.....Multi-plate, wet
Secondary transmission.....Single-row chain (3.357)
Gear ratios, overall :1.....1st 24.07; 2nd 16.97; 3rd 12.33
4th 9.48; 5th 7.29

CHASSIS & SUSPENSION

Suspension, front.....Telescopic fork
Suspension, rear.....Swing arm
Tire, front.....3.00-21
Tire, rear.....4.00-18
Brake, front.....Drum
Brake, rear.....Drum
Rake/trail.....30°/5.31 in. (135 mm.)
Wheelbase.....55.2 in (140.2 cm.)
Seat height.....33.1 in. (84.0 cm)
Handlebar width.....32.5 in. (82.5 cm)
Ground clearance.....9.2 in. (23.3 cm)
Instruments.....Speedometer, reset odometer; tachometer,
low oil, neutral, high beam, turn signal lights.
Stands.....Side
Tire retention device(s).....Security bolts; 1 front, 2 rear

WEIGHTS & CAPACITIES

Fuel capacity.....2.4 gal. (9 lit.)
Oil capacity.....1.2 qt. (1.1 lit.)
Weight, wet, unladen.....282 lb. (127.9kg.)

YAMAHA DT250D

petals and also improve fuel flow and low-end response. Every change made over the past few years seems to lead to more torque—Yamaha obviously isn't concerned about making lots of horsepower—leave that for the motocrossers. The exhaust port, for instance, has also been lowered one millimeter and its width increased another four—again for more torque.

The up-pipe has been totally redesigned and tucks in tighter than a bottle cork. It's slightly shorter in length to clear the battery and mono-shock and exits the right side instead of the left—switching sides seems to be a favorite pastime of Yamaha engineers. To retain performance it was necessary to keep the long headpipe in front of the cone and you'll notice that it actually winds down below the lowest point of the frame just begging to get bashed in. Yamaha claims they did extensive testing with the pipe and finally deduced that it really wasn't vulnerable; we'd like to be around when they're taking bets

on that one! They did discover upon close scrutiny that it's great for picking off flying rocks from the front wheel, so they added a small rock guard over the front portion.

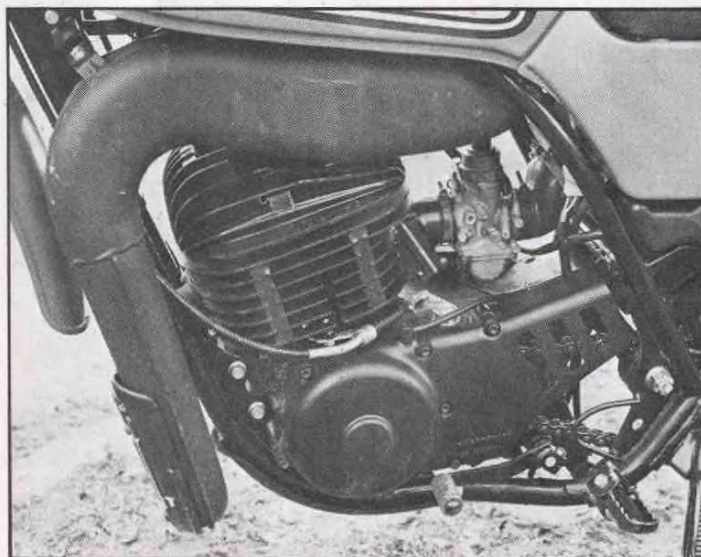
As with previous models, the engine didn't dazzle us with any teeth-jerking acceleration and the Webco dyno figures are proof that Yamaha has managed to cash in all their horsepower for more torque. The result is an engine that supplies loads of stump-pulling torque and powers cleanly and evenly from the lowest revs up through 6000 rpm, where it abruptly says "I give up!" and signs off, never intending to reach the 7000 rpm redline. Primary and secondary ratios remain the same; however they did change the gear box slightly which only aggravates the lack of performance. The step between fourth and fifth is wider now and ultimately the overall gearing is higher, obviously intended for easier highway cruising. Consequently the engine just won't pull fifth gear off-road with any authority. Deep or shallow sandwashes, slight uphill

grades and generally any terrain that points the nose upward induces a down shift. However, we never got into any situations it couldn't pull us out of, and if you're not out to impress your lady with wheelies and powerslides, the horsepower deficiency won't be a bother.

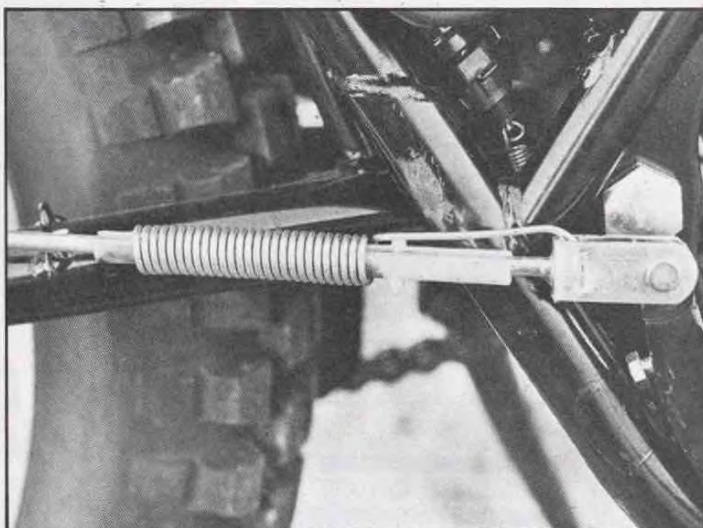
Warn your wife or girlfriend about starting the bike—it has a nasty habit of kicking back if you fail to kick through strongly. It loves to take your kneecap and center-punch the turn indicator light with it—three bruises later we learned our lesson.

With softer suspension and heavier padded seat, it's undoubtedly the most comfortable DT to date, both on and off the highway. It cruises easily at 60 mph with the tach needle hitting 5300 rpm and isn't exceptionally noisy; it does have its fair share of vibrations, common to the model. We did have a slight beef about the handlebars. They're offset and pulled back similar to the MX models but for different reasons. It's necessary on the MX bikes so the bars will

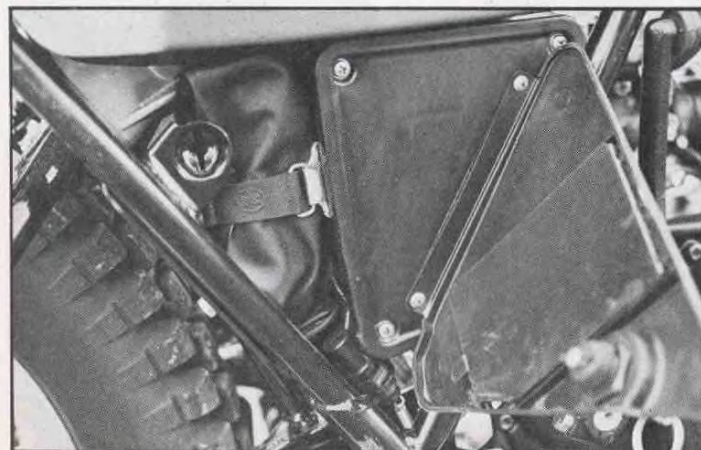
continued on page 98



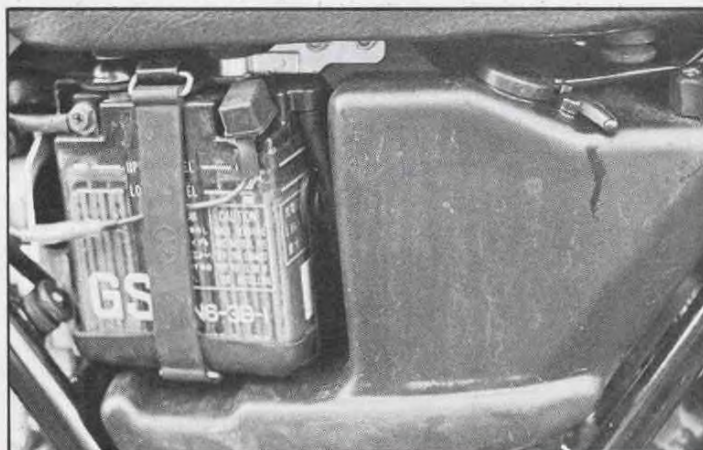
Left engine cover has grown into one piece and believe it or not, it's all plastic. Notice nifty little chain guard rail down by the footpeg.



Yamaha has always been a stickler for detail—more so this year. Notice the plastic piece inserted inside the brake return spring to reduce vibration. Also notice the brake arm pivot is identical to the swing arm pivot.



The seat doesn't flip up this year—everything is accessible from the sides. Right side panel swings out to reveal tool kit and air box cover.



Pulling the left cover off you'll find the battery and oil tank. Tank features oil warning light, dipstick and swing out accessibility.

**HOT TRIX,
HOT OFF
THE PRESS.**

**THE NEW
MOTO-X FOX
CATALOG.**

MOTO-X FOX
1977 Catalog \$1.00



For your
1977 catalog
send \$1.00 to:

MOTO-X FOX

520 McGlinchy Lane.
Dept. MM
Campbell, CA 95008
(408) 371-1221

**hi-performance
ENGLE CAMS**



FOR THE KAWASAKI Z-1

Enjoy the increased performance and horsepower boost of an Engle camshaft. A complete line of street and competition grinds are available. Included are grinds for use with stock pistons and big bore kits. Ground on new billets (not re-grinds).

ENGLE RACING CAMS

1621 12th Street ■ Santa Monica, CA 90404



**40 Piece
Socket Set**
1/4"-3/8"

SAE/Metric
ONLY \$15.95

**Vessel
Impact Driver
Set 3/8"**

includes
metal case
& 4 bits.

ONLY \$5.95

No. C.O.D. please—

Dealer Inquiries Invited

To order,
send check
for full
amount
(plus \$1 for
shipping) to:

Wide World Tool

11137 La Maida
N. Hollywood, CA 91601
Calif. Res. Add 6% Sales Tax

CycleSound™

Radio Housings



CUSTOM MODELS

VETTER • WIXOM

CALAFIA • PACIFICO

Cycle Machine Services

11908 RADIUM • SAN ANTONIO, TEXAS 78216
512/349-6804

LET THEM KNOW WHO YOU ARE!



Beautiful embroidered emblem sets for the front or back of your jackets. Send sketch for free price quote. Send camera-ready artwork and get one set free with order.

**FREE CATALOG. MINIMUM 15 SETS.
EASTERN EMBLEM MFG. CORP.**

P.O. Box 828, Dept. MCP
Union City, N.J. 07087

**THE WORLD'S
HARDEST-TO-
FIND**



motorcycle magazine is **ROAD RIDER**. It's also the only one published just for the touring rider — and is written and edited by a bunch of road riders who really know whereof they write (usually). RR is available only by subscription and at some more classy dealers. But don't fret — send us \$10 and we'll send you RR for a year. Or if you're kinda leery, send us \$1 for a sample copy.

ROAD RIDER

Box 678-G, South Laguna, CA 92677

**MAKE A BUCK ON
OUR 1977 CATALOG**



YOU GET \$3.00 FOR \$2.00

Hard parts, tools, chrome, accessories, tires, batteries, 280 pages of uncommon and common items for all large motorcycles: British, European, American and Japanese, 350cc and larger. We ship immediately. Send \$2.00 for catalog. We will credit \$3.00 to your first \$25.00 order.

ACCESSORY MART INC.

P.O. Box 26116 Cincinnati, Ohio 45226

**THIS AD
DOESN'T BELONG HERE...**

YOUR AD DOES!

For complete details on how you can be part of "MOTO-MARKETPLACE" and promote your product or service to thousands of potential customers each month, contact:

BOB NAGY

% Mail Advertising Dept.

8490 Sunset Blvd.

Los Angeles, CA 90069

YAMAHA DT250D

continued from page 64

clear the fork tubes—the DTs don't have this problem because they're not using leading axle forks. Yamaha claims they pulled them back for added comfort, and we agree, for street riding they are more comfy, as long as your arm length is normal. But for off-road riding that requires a lot of standing, they're pulled back way too far and too low.

If you're looking for convenience gimmicks and the latest in cosmetic styling, you'll find them on this bike. Like the 400 twins, the new DT has an oil warning light incorporated into the tack that signals the oil tank needs topping off. We were able to go 304 miles before the light started flickering and it took only a half quart of oil to top it back up; you get plenty of warning. With consumption figures like these, you can expect to get over 600 miles on the 1.2-quart oil tank. They cut the oil pump flow down again and we were happy to notice barely a glimmer of blue smoke coming from the rear. Filling the tank isn't a hassle anymore either—the tank, located under the left side cover, pivots out away from the bike for convenience and even has a dipstick for those who like that sort of thing.

'77 styling is evident throughout, such as the reshaped fuel tank that flows gracefully into the plastic side covers. It's a good looking combination but we were disappointed to learn that the tank still holds only 2.4 gallons. We tested last year's bike which was getting roughly 120 miles per tank and were shocked when we could only manage to squeeze about 75 offroad miles out of a full tank—the reserve added another 15 with the grand total being a whopping 90 miles. Yamaha reed-inducted two-strokes have never been famous for fantastic mileage, but a street-legal enduro that won't even go 100 miles is purely a blunder. It's simply a case of the styling expert overruling the engineers.

We put on some miles during evening hours and can rightfully say the lights have been improved. Yamaha didn't change the headlamp but managed to get five more watts flowing to it. Apparently the earlier models didn't have a regulator incorporated into the electrical system which caused some problems. When a tail-light burned out it would inadvertently blow the headlamp out also. The newer models, including this one, have an A.C. regulator that lets more wattage build up and flow to the light. You'll also notice the headlamp housing is totally plastic and one

piece—looks like the chrome ring is gone forever!

Yamaha's pretty innovative when it comes to trick gadgetry, like their latest rubber-stemmed rear turn indicators. They'll bend 90-degrees in any direction and you can lay the bike down as many times as you like without shattering them.

We've always thought of the DT as an engine and not a complete motorcycle, a reliable powerplant far more sophisticated than the chassis it sits in. We've changed our minds. With the improved suspension, it's pretty much a balanced package now, able to satisfy those who were a little more prone to escaping the pavement for the adventurous off-road. It is a safer machine now, less likely to throw you on your butt at higher speeds and more likely to end up at its destination in one piece. We punished our DT over the Parker course, a course that's left many a broken machine, and found not a single item broken or missing from the bike—that's pretty remarkable for a bike with full street running gear.

The horsepower deficiency is the price you pay for reliability and streetability. However, it's not the worst by far. In fact, when we tested last year's model against the five other leading enduros, it ranked second only to the Can-Am in outright engine performance.

As a street package it's a little more sophisticated with all the latest gadgets and conveniences. The new styling is a toss-up—some have liked it, some haven't. The main point is that Yamaha has really tried to put the words "dual-purpose" back into the DT and we think they've succeeded. And one other note you can take to the bank—it costs just \$3 more than last year's model. **M**



MOVING?

DON'T MISS A SINGLE ISSUE OF MOTORCYCLIST!
 Let us know your new address right away. Attach an old mailing label in the space provided and print your new address where indicated.

TO SUBSCRIBE OR EXTEND YOUR SUBSCRIPTION—

Check the appropriate boxes below:

☐ New subscription. Please allow us up to 60 days to get the first copy into the mail.

☐ Renewal subscription. Please include a current address label to insure prompt and proper extension.

☐ 1 year \$9 or ☐ 2 years \$16 (U.S. Territories & Military only. Other countries add \$1 per year).

☐ Payment enclosed or ☐ Bill me (U.S. only)

MAIL TO:
 MOTORCYCLIST
 6725 Sunset Blvd.
 P.O. Box 3296
 Los Angeles, CA 90028

Name _____

Address _____

City _____ State _____ Zip _____

ATTACH LABEL HERE

(If label is not handy, print OLD address in this space.)

special introductory offer for new subscribers!

CLOSE IN ON THE ACTION!

Motorcyclist is the action magazine. Where there's motorcycles there's action. Being an avid motorcycle fan, you want a piece of the action, whatever it is, wherever it is. And **Motorcyclist** brings it all to you.

Motorcyclist, from its first appearance, has taken thousands of eager fans to the action scene. Join the ranks of the many other bike enthusiasts who have discovered **Motorcyclist**. Always current, always thorough, with professional presentation for the serious student of motorcycling.

Motorcyclist is an absolute *must* for the fan interested in staying abreast of the latest in the motorcycle world!

1/2 off

Motorcyclist

MCH4K

6725 Sunset Blvd. P.O. Box 3296 Los Angeles, CA 90028

Please enter my subscription to **MOTORCYCLIST** at the special introductory rate of:

- ☐ 1 year for only \$4.50* (a 50% saving off the regular 1 year subscription rate of \$9), or
- ☐ 2 years for only \$9* (you get 2 years of **MOTORCYCLIST** for the regular price of 1 year).
- ☐ Payment enclosed. ☐ Bill me (U.S. only).

Name _____

Address _____

City _____ State _____ ZIP _____

*U.S., Territories & Military only. Other countries add \$1 for postage. Offer expires June 30, 1977. (Please allow us up to 60 days to get the first copy of a new order into the mail. Watch for it!)